

Seventh Annual Farm Machinery Magazine Number

FARM AND DAIRY & RURAL HOME

Price 10¢
Per Copy
Subscription Price \$1.00

DEVOTED TO
BETTER FARMING
AND CANADIAN
COUNTRY LIFE

Peterboro, Ont., June 3, 1915



THE FIRST CUTTING OF ALFALFA.

"Simplex"

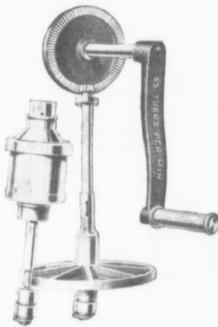
LINK BLADE

Cream Separators

embody all the features that our many years experience have taught us are desirable in a Hand Separator. A "Simplex" contains features never before put in a Hand Separator, and notwithstanding the many improvements and the greatly increased initial cost of same, our separator prices have been reduced.

The "Simplex" is one of the greatest labor savers that has ever been offered to the dairyman. Note the large capacity—from 500 to 1,100 lbs. per hour.

Dairy men are calling for Large Capacity Hand Machines so as to save time in skimming. Time is money. If you are using a low capacity, hard to turn, loose skimming machine of another make, our proposition will particularly appeal to you. Let us send you our catalogue. We have a "Simplex" to fit every farm.



Showing extreme simplicity of driving gears—one pair bevel gears, one pair of spur gears. Showing also the inclined intermediate shaft, a new and exclusive "Simplex" feature.

D. Derbyshire Co., Ltd.

Head Office and Works: **BROCKVILLE - ONT.**
Branches: Peterborough, Ont. Montreal and Quebec, P.Q.
We want Agents in a few Unrepresented Districts.

The Silo For Canada

Known as the one staunch preserver of sweet succulent silage through fiercest winters and driest summers, needing no repairs, no painting, no adjustments, the Natco Everlasting Silo is recognized as the silo for the Dominion. It is made in Canada for Canada. It's weatherproof, decayproof and fireproof, convenient and attractive and will add as nothing else to your farming profits. The Natco will be the most valuable addition to your farm buildings—a structure that you'll be proud of. The

Natco Everlasting Silo

(PATENTED)
"The Silo That Lasts for Generations"

is built of hollow vitrified clay tiles, whose glazed surfaces are impervious to air and moisture and whose double air compartments prevent freezing. The dome frame consists of special lambs-lime. Domes are of galv. cyprus, Perfect. Great convenience. Durable. Rigid. Bands of steel laid in the mortar reinforce this strongest of all silos. No blowdowns—therefore a taller silo with smaller diameter can be built—reaping less silage on top. Nothing can take this plan of strength and efficiency. Send today for list of Natco owners in your province and our Catalog 6.

National Fire Proofing Company
of Canada, Limited Toronto, Ont.



Why Are We Poor?

H. Percy Blanchard, Hants Co., N.S.

THE personal pronoun "we" is here used impersonally. It stands for the major portion of the citizens of Canada. Certain men, perhaps idealists, or "cranks," if you prefer it, or maybe men just a little ahead of their day, have tried to solve the problem of eternal poverty, by conjoining with other men of kindred spirit in a close-fenced "community." There was the Oneida Community; for instance; and later the Doweities in Zion City; and stronger example still, the Mormons. Their rules limited spending by prohibiting many useless and extravagant acquisitions. But they could not eliminate human selfishness and ambition; and so failure ultimately was written on most of these attempts. But, barring this human element of weakness, is the idea practical; and would such a community and on a properly extensive scale give an ample and comfortable living to all the members, and with a visible reduction of labor? If a self-governed community of five thousand persons on a sufficient acreage can live in comfort, producing their own food, their shoes and clothing, and furniture, in their own factories; and, by the outside sale of their surplus produce, buy from beyond their walls such foreign stuffs and raw materials as they cannot themselves economically make or grow; and each adult contributing his four hours' stint per day in labor, then much easier could all Canada do the same.

Where Labor Loses Its Increase

But if that community wastes its labor on cut-stone dwellings and factories, when brick will do; if the ones who toil not begin to spin, and so ensnare in their web their fellows, so that millions of wealth are taken from their workers that the spinners may roll in luxury, the four hours turn to five, and ultimately to ten per day of work.

All visible things made and all improvements, buildings, machinery, railroads, ships, arable land, crops, are simply materialized labor. Money is labor's distilled essence. I work a week for you; I make you some article of property. In primitive times you must in return work for me six days also, or make for me a similar article. Those articles made are your and my labor materialized. With wages at a dollar a day, one million of money in the rich man's vault means that one million superfluous days of productive work have been done by some one; and that these superfluous million days have been accumulated somehow by that rich man. The dollar bill in your pocket means just one day's sweat by someone. The barrel of flour in your house is so much barrelled labor.

All We Have Is Labor

In fact, whatever thing we have is just so much accumulated labor, as its cost price shows. A definite quantity of what we collectively produce, feeds, covers, and warms us. It is what we consume; and so many hours per day of toil produces it. What more our labor produces is either accumu-

lated or wasted. Not only must the producer maintain himself, but in addition his work must build railroads and cities, feed the idle, minister to all their luxury and waste, and finally may fall into the money bag of the wealthy. In comparison to what that is, just imagine an ideal existence where only the workers were admitted, the drones starving outside the walls. Work! Work the necessary work within the gates would be for each so small a daily task that its performance would seem but play; just exercise demanded and enjoyed by a vigorous and healthy body. Why are we poor?

The Test on the Farm

UNTIL comparatively recent years the full value of the Babcock test for butterfat in milk and its products has not been realized by the majority of the farmers. The following are a few facts which go to show that this form of testing dairy products should be carefully considered by the farmer who wishes to build up his dairy:

1. The milk from each cow in the herd can be tested at certain intervals, say once a week, and the total amount of butter fat produced can be calculated by multiplying the total number of pounds of milk by the per cent of fat. This will show just how much each cow is producing on the butter fat basis.

2. Practically all cream and most of the whole milk sold to creameries and milk manufacturing establishments are sold on the butter fat basis, and if the producer is tested by the producer he can tell whether or not he is getting value received from his sales.

3. If butter is made on the farm it is good to have the cream before churning so that the salt (and coloring if used) may be added in uniform amounts. The amount of salt should range from one-half to two ounces, depending on conditions, and the amount of coloring depending on the season of year.

The first reason mentioned is probably the most important, because if a cow is not producing at least 100 pounds of butter fat a year she is usually not paying for the feed consumed and therefore is a losing proposition from the dairyman's standpoint and should be disposed of.

An outfit for testing milk and cream may be purchased for from \$8 to \$100, depending on the size and kind of power used for operation, but a good serviceable hand machine large enough to accommodate about 12 bottles one time and a supply of milk and cream bottles would cost about \$2.50, and a machine of this size is large enough for the average farm dairy.

Why not plant a few shade trees?

Drag the Roads

"When the smiles of spring appear,
Drag the roads;
When the summer time is here,
Drag the roads;
When the corn is in the ear,
In the winter cold and dear,
Every season of the year,
Drag the roads.

"When you've nothing else to do,
Drag the roads;
If but for an hour or two
Drag the roads;
It will keep them good as new;
With a purpose firm and true,
Fall in line; it's up to you—
Drag the roads.

—The Kansas Industrialist.

FARM AND DAIRY & RURAL HOME



We Welcome Practical Progressive Ideas



The Recognized Expert of Dairying in Canada.

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

Vol. XXXIV

FOR WEEK ENDING JUNE 3, 1915

No. 22

What Hydro-Electric is Doing on Seven Farms Mr. Irvin Hallman, Waterloo Co., Ont., Tells of Its Advantages to Himself and His Neighbors.

SEVEN farmers, living just one mile from the town of Waterloo, are deriving perhaps greater advantages from Hydro-Electric power than any similar group of farmers in the province of Ontario. On each of these seven farms grain is threshed, silos filled, chop ground and wood sawn by electric energy. The homes in which these men live are lighted by electricity; in not a few of them, house work has been lightened by electrically driven washing machines and wringers, electric irons and electric toasters. Chores have been lightened in a very literal sense by lighting systems that reach every corner of the stables and drive sheds, and even up into the mows. A portion of the privileges enjoyed are due to proximity to Waterloo and hydro power.

They are due in still greater degree to the co-operative spirit exhibited by each of these seven men in making use of their opportunities. The men are Messrs. Irvin Hallman, Eldon Hallman, Josiah Stauffer, Noah Snyder, Urias Snyder, Alvin Schiefel, and Cleason Shants.

Mr. Irvin Hallman is a brother of Mr. A. C. Hallman, the veteran Holstein breeder, and it was through the latter that a Farm and Dairy representative learned of this syndicate of seven. It was Mr. Irvin Hallman who told us of the workings of their system. These men have special advantages. All of the seven have large farms and use a large amount of power. Two of the farms average 219 acres, and the remaining five have an average area of 170 acres. These big

farms are closely grouped, no one farmer being more than a mile and a quarter distant from any other member of the syndicate. They have thus overcome a factor that has militated against the adoption of Hydro-Electric in many sections.

Drawbacks to Hydro-Electric

In not a few districts that would otherwise be served with Hydro-Electric energy, a few farmers are very anxious for electric privileges, but the majority of their neighbors hesitate to "come in on it," thus increasing the cost of dis-

tributing electricity to a prohibitive figure. Small farms with small power requirements are also a drawback. The absence of these conditions explains the good rate secured by these seven Waterloo farmers. Having made these explanations, Mr. Hallman conducted our representative out through the drive floor door in order that we might see the system from the start.

Three power cables run from the power line on the highway and terminate on a 20 foot pole standing near the barn. On these lines the voltage is 2,800. When work is to be done, three

cables from the transformer, owned by the syndicate, are attached to the power cable by long bamboo poles and the voltage reduced to 220. A cable 150 feet long carries the energy from the transformer to the motor. All machinery operated must be within 170 feet of the power pole in the farmyard.

"Our initial investment," explained Mr. Hallman, "was in a transformer and a 20-horse-power motor. Both of these are mounted on covered wagons and look like gypsy rigs. One team can handle both in transporting from farm to farm.

This equipment cost us \$800. We all paid alike on the capital account, and we make a charge of \$1 a day to each member of the syndicate for the use of the motor. This is for maintenance. A meter on the transformer registers all the power used. Each member reads the meter when the motor arrives on his farm and again when it leaves, and each man pays for the energy that he has used. In addition,

"The same syndicate that owns the motor and transformer, also owns the rest of our equipment," answered Mr. Hallman,—"and on the same basis,—the cost is divided equally among the seven of us. We have our own threshing separate-



Electric Energy is Used in Both House and Outbuildings. This is one of the seven farmsteads near Waterloo enjoying the benefits of Hydro-Electric connections; the home of Mr. Eldon Hallman.

tributing electricity to a prohibitive figure. Small farms with small power requirements are also a drawback. The absence of these conditions explains the good rate secured by these seven Waterloo farmers. Having made these explanations, Mr. Hallman conducted our representative out through the drive floor door in order that we might see the system from the start.

Three power cables run from the power line on the highway and terminate on a 20 foot pole standing near the barn. On these lines the voltage is 2,800. When work is to be done, three

cables from the transformer, owned by the syndicate, are attached to the power cable by long bamboo poles and the voltage reduced to 220. A cable 150 feet long carries the energy from the transformer to the motor. All machinery operated must be within 170 feet of the power pole in the farmyard.

"Our initial investment," explained Mr. Hallman, "was in a transformer and a 20-horse-power motor. Both of these are mounted on covered wagons and look like gypsy rigs. One team can handle both in transporting from farm to farm.

This equipment cost us \$800. We all paid alike on the capital account, and we make a charge of \$1 a day to each member of the syndicate for the use of the motor. This is for maintenance. A meter on the transformer registers all the power used. Each member reads the meter when the motor arrives on his farm and again when it leaves, and each man pays for the energy that he has used. In addition,

"The same syndicate that owns the motor and transformer, also owns the rest of our equipment," answered Mr. Hallman,—"and on the same basis,—the cost is divided equally among the seven of us. We have our own threshing separate-



The Hydro Fitted Home of Mr. Irvin Hallman, Waterloo Co., Ont. Notice the Power Pole to the Right of the Silo.

tor, a self-feeder with a 33x48 straw blower, and all other attachments, including a straw cutter. This is a large outfit, and we have a fixed charge of \$5 a day for maintenance. It requires \$5 to \$6 worth of electric energy to thresh for a day, making our total cost per day \$11.50. The regulation charge for steam engines in the neighborhood is \$7 a day and this without considering fuel, the drawing of water and danger to the buildings. Separators cost \$10 a day additional. So our electric equipment costs us \$11.50 a day to thresh against \$17 with the old steam engine equipment, and so that we must add fuel and water. I used to have a steam engine myself, but it yet in fact, and anyone who wants it can have it cheap.

Electric Power More Uniform

"We can do more threshing with electricity in a day than we ever could with steam," affirmed Mr. Hallman. "The power is much more uniform, there is much less vibration on the belts and separator, and they wear much longer."

Speaking of other equipment, Mr. Hallman said, "We have an 11-inch plate chopper that grinds 60 bushels an hour. Power costs just three-quarters of a cent a bushel. We have no fixed charge on the chopper, but of course the \$1 a day on the motor must be charged against the chopping. Previously it has cost me an average of \$50 to \$60 a year for chopping alone when I was drawing the grain to the mill. Last year I chopped an equal quantity at a charge of \$10 for electricity and \$3 for the motor."

"We saw our own wood on the same basis. The saw cost us \$50 and this is the main expense. You would hardly believe it did I tell you how little electricity it takes to run a good capacity saw. One dollar a day will pay the bill, and you could hardly get up steam in an engine for a similar amount."

"And silo filling," we suggested.

"Yes, we have our own silo filling outfit, too," continued Mr. Hallman. "We own it on the same basis as our other equipment. It has a

big blizzard bench that will take in sheaves two and three at a time. It takes about the same power to run the cutting box as the threshing separator, about \$5.50 a day."

The Capital Investment

We then figured the capital investment of this syndicate of seven as follows:

Motor and transformer	\$300
Grain separator	600
Grain chopper	60
Ensilage blower	160
Circular saw	50

Total

\$1320
This represents an investment per man of \$390. Of course there are a few incidental investments. Mr. Hallman summed up the merits of Hydro power, when he said: "I have not more than \$300 invested in motor and lights. Lots of farmers will invest more money in a gasoline engine for power alone."

(Concluded on page 22)

Marketing Farm Produce with an Automobile

The Experience of Marshall Haines, Halton Co., Ont., as told to an Editor of Farm and Dairy.

WE follow general farming with an automobile. We have other equipment, but none of it is more valued than our Ford car. It has practically solved the problem of getting our produce to market expeditiously. Some of our principal products are cream, tomatoes and potatoes; the bulk of all of these leave the farm on our automobile.

"The country in this section of Halton county is rough and hilly, and we cannot get away from our farm in any direction without climbing a couple of steep hills and travelling over rough roads of cut stone. Even under these conditions our car has given excellent service for two seasons, and promises to do equally well for several seasons to come.

"During the fall of 1914 we marketed over 56,000 quarts of fruit with our car. On an average we carried 65 eleven-quart baskets of tomatoes to the load, and have carried as high as 72 baskets. A basket of tomatoes, as we pack them, weighs 19 pounds, and the car, therefore, carried at a maximum 1,368 pounds of fruit, in addition to the driver. We grow several acres of early potatoes, and these, too, go to market in our Ford.

Market 17 Miles Away

"The market to which we patronize most largely is the city of Guelph. Guelph is just 17 miles from our farm, and there is very little level road between here and there. We average three trips a day, however, during the shipping season, and on some days made four trips. Before we purchased our car, one trip was considered a good day's work for a team.

"Our cream is shipped to Toronto, our shipping station, Campbellville, being three and one-half miles away. The tri-weekly trip to the station requires so little time that it does not seem to interfere at all with the forenoon's work. Did we have to depend on the horses, three half-days a week would be spoiled. If one counts his time as worth anything, the cream shipper who owns a car is way ahead on the game. We have heard the objection raised to this method of transporting cream that one is apt to get stalled on the road and not get to the station as soon as the train. We have never had such an experience.

"Another use that we have made of the car is in bringing empty baskets from the factory. Last season we laid a few boards across the car body,



Mr. Haines Finds Many Utility Uses for His Auto.

drove a half-dozen nails to keep them in place, went to Burlington, and came back with over 300 eleven-quart baskets in one load. The load, we need hardly say, was about the size of a nice jg of hay.

Carries Chop to the Mill

"Taking chop to the mill is usually considered work for a big wagon and team of horses. If we run out unexpectedly, our car will run a thousand pounds of chop to the mill and back in a very short time. We have carried as much as 1,300 pounds.

"These are the utility uses of the car on our farm. They pay for the car. We get the pleasure that it affords for nothing. We bought a new buggy just before the car. That was over two years ago. It has not been used three times since, outside of funerals. Driving a horse and buggy seems like a waste of time, and they have gone out of commission for business and pleasure driving.

"We find that our car is also largely putting the railroads out of commission, so far as we are concerned. Travelling is cheaper by auto, and we can arrange the time tables to suit ourselves. Last summer we started from Wingham with our tank full of gasoline. We ran the 70 miles to Guelph with five passengers, and when we stopped there for gasoline, a little less than two gallons refilled the tank. We had travelled 35 miles per gallon of gasoline.

"Last fall we went to the Toronto Exhibition. We left home shortly after seven o'clock. We

were on the Fair Grounds shortly after 10, or before the train people had got there. There were six of us in the car. We stayed until after the fireworks, and were back home before one o'clock, again ahead of the train people. This trip was not made under the best of conditions, as there had been heavy rains, and part of the journey was over heavy clay roads.

"We have had no experience with heavy cars, but believe that the light car is the car for country roads. We have driven our Ford 17,000 miles, and so far it has never refused to go. We are now using the second set of tyres and two extras. The present set look good for this season at least. I have a brother-in-law with a car that has run 26,000 miles, and he says it is good for that much more. Our combined experience is that the expense of motoring is not prohibitive.

"Of course, we economize where possible. For instance, we have added a manifold which feeds more air to the engine when it gets warm and saves much gasoline.

"Yes we certainly would be lost without our car."

Farm Horses without Shoes

THE blacksmith bill is a serious item when the aggregate expenses for the year are considered. A few months ago we had a talk with a Huron county farmer who had cut his blacksmith bills in two. Here is his experience as he told it:

"A few years ago we started to keep farm accounts and it did not take long for us to decide that the blacksmith was getting too much of our profits. Along in November one year when I had added up the smith's bills for the year, I went right out to the barn and ripped the shoes off of four horses, and left only one team shod, the team that we used for driving, and for all road work. Next spring we decided to see how barefooted horses would work on the farm. The two teams without shoes went through the season's work without any damage to themselves, and we have never had them shod since.

"Of course," this Huron farmer added, "unshod horses are never taken on the road. We keep one team shod and that team does all the road work."

Cutting into the Implement Bill

Instances of Men who Gain and Lose in Implement Management.

FRANK C. MONTGOMERY, HASTINGS CO., ONT.

"THE average farm implement is used but a few days a year. In these little used implements is invested a good big proportion of the capital of our farms. The young farmer starting out, particularly if he is on a rented farm, finds that the implement bill will absorb almost all of his capital, and that buying only the implements that are necessary on the modern farm. The most expensive machines generally are the ones that are least used. If we can cut into this implement bill we could add considerably to our profits. There are two ways to do this. One is by giving the implements better care and making them last longer, and the other lies along the road of cooperative ownership.

I was recently interested in an estimate made by a dealer in implements in the western states, in which he stated that the average life of a binder was only four years. That estimate startled me at first, but when I began to think of it I concluded that it might not be far out of the way, as here in Ontario, where housings may be had more cheaply, the average life of a binder cannot be over seven or eight years; and yet in almost any locality it is possible to find binders that have been cutting crops for 20 years, and still doing good service. I have seen farmers discard mowers at the end of their fifth season, and I know of others who have used the same mower for the past 18 years, and expect to use it for some years to come. I can mention instances of where seeders and manure spreaders have been discarded at the end of a few years on some farms as worn out, and of machines of the same make that are still in service, although purchased before the discarded ones. Plows, cultivators, and so forth cost less and come in for more use in the season. But here, too, we find unnecessary depreciation.

Oil For Implements

I am considered a sort of handy man by my neighbors, and am usually called in when anything goes wrong with the implements. One of the most frequent troubles with comparatively new implements that I find is lack of oil. Just this season a neighbor came over for me in a great rush in the midst of harvest. His grain binder wouldn't work. On examination I found that several of the bearings had received no oil since he had bought the implement two years before. The manufacturer had provided oil holes for those very bearings, but the farmer had never discovered them. Oil holes, I find, are put in implements to be used, and one of the first duties of the farmer on investing a lot of money in a new imple-



Neglected Implements Account for Many Farm Failures.

Every year sees some new farm implement on the market. The capital investment in farm machinery is ever becoming heavier, and just as the investment increases so does the annual loss through depreciation. If the best of care and shelter is not given. The illustration portrays a scene fairly common in every grain growing district in Canada.

ment is to make himself thoroughly acquainted with the mechanism, and especially to find where oil is needed, and then to keep it oiled. A point of particular importance is to use a good grade of oil. If you use the grade recommended by the manufacturer, you will not be far wrong.

Implements are often cast aside because some comparatively minor part has gone wrong. The owner, not able to locate the difficulty, is willing to sell an expensive implement at a fraction of its cost. Here again it is necessary to be familiar with our machines in order to locate difficulties. The same implement dealer of the west to whom I referred earlier in this letter, stated that a large proportion of discarded binders could have been practically re-made and all worn parts replaced for \$30 or \$35, and the binder made as good as new. This sounds reasonable, as I know that most of the parts of any implement are practically imperishable. The parts that wear out can usually be replaced at little expense, but be-

fore we can do such replacing we must know our implement. Here is a big chance to cut it to the implement bill.

Rough Driving is Costly

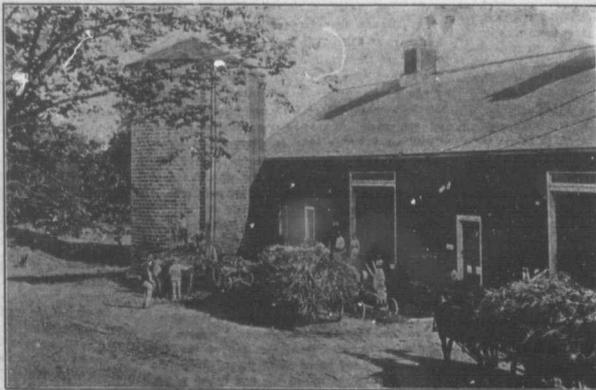
Rough handling and driving are the biggest factors in implement depreciation on many farms. Some farmers couldn't run a wheelbarrow and do it right. Modern implements have parts that are delicate and intricate, and the teamster should be careful in proportion. Just to drive a binder into a ditch with a steep bank gives it a jar that may be sufficient to throw several parts of the mechanism out of gear. A manure spreader purchased in this locality a couple of years ago has never given satisfaction just because of the rough handling it has received from its owner.

The subject of shelter for implements has been dealt with so extensively that I will do little more than mention it. That a cheaply built, but weather-tight implement shed is one of the best investments on the farm I regard as one of the best proven facts in farm management. If there is any operation that will pay bigger dividends than painting and oiling implements when they are put away for the season, I have never heard of it.

Implements Cooperatively Owned

Not five miles from my front gate there are two farmers who have practically cut their implement bills in two because they have been big enough to rise above petty suspicion and jealousy and own most of their implements cooperatively. As it happens, while these farms are side by side, the soil on one is a heavy clay loam and on the other almost a sand. Hence few operations are carried on at the same time on both of these farms, unless it be cultivating after rains in the summer, and even here the sand farm would be cultivated first. Hence these two men have ideal conditions for owning machinery on a cooperative basis. In almost every district there is a wide variety of soils, and the plan used by these two men in this county might be widely adopted if farmers would only get together for their mutual advantage.

I cannot see any reason why such expensive outfits as are required for threshing and silo filling should not be owned cooperatively. I have had some experience in cooperative ownership of a threshing outfit, and can pronounce it O.K. I am also part owner in a silo filling outfit, and it is just as satisfactory as owning the whole equipment myself. I and my neighbor own a two-row cultivator cooperatively, which neither one of us could afford did we have to buy it ourselves. Two other neigh-



Cooperative Ownership Affords a Ready Method of Reducing the Implement Bill.

Only the more extensive farmers can afford to own their own equipment for silo filling and threshing. Then why not neighborly cooperation in the ownership of these expensive machines? This method of cutting into the implement bill has been proved practical by hundreds of farmers all over the continent.

(Continued on p. 12)

Implements That Help to Solve the Labor Problem

They Are Proving Their Value on the Farm of W. W. Ballantyne and Son, Perth Co., Ont.

F. E. ELLIS, B.S.A., EDITOR FARM AND DAIRY

A DAIRY farm of 300 acres, supporting a large herd of pure-bred cattle, presents a problem that would be almost impossible of solution were it not for the mechanical aids now available to the farmer. W. W. Ballantyne and his son Norman are handling just such a farm in the county of Perth, Ont., with only three men—the two proprietors and one hired man. Neither the field work nor the dairy herd are neglected. The farm is well worked and Record of Performance tests speak for the attention the dairy cattle receive. The problem of getting the work done has been solved by the use of every modern implement that promises to cut down labor charges sufficiently to pay for interest and depreciation. It was recently my good fortune to spend half a day with the Ballantynes and chat with Mr. Norman Ballantyne, the junior member of the firm, on the subject of implements. I could not begin to divulge within the limits of one article all that I saw and heard in that half-day. I must limit myself to a few special lines that are proving

a day with wide harrows as compared with narrow ones. Our harrows work 13 1/2 feet of ground."

Among the cultivating implements that accompany the wide harrows on the Ballantyne farm are gang plows, a double cutaway disk, which is now one of the most valued implements on the farm, and a 15-disk drill. The work of the three-horse cultivator has recently been supplemented by a Smith cultivator, but this implement I will mention at another time.

I noticed that behind the disk drill a riding board had been added, being the same as in the



Corn Planting the Modern Way.

Mr. Andrew Stark, Huntingdon Co., Que., as photographed by an editor of Farm and Dairy on his two-row corn planter. Here is an implement that lends itself admirably to cooperative ownership among neighbors.

the disk drill a riding board had been added, being the same as in the case of the harrow cart. Corn machinery next came up for consideration.

"Before the two-row cultivator came on the market," remarked Mr. Ballantyne, "we had two single-row riding cultivators. We traded one of these off on the new two-row cultivator, but retained one of our cultivators in case the new implement did not work as well as we expected, and also with the idea that we might use it for cross cultivating. As a matter of fact, we have used the old one only one-half day since the new machine came on to the farm. We find that the two-row cultivator as man and horse labor is a two-row check row corn planter, owned

binder over there in the corner?" I asked.

"That is our own machine, and it is the second one we have had on the farm," answered Mr. Ballantyne. "The first binder we had was one of the first in the neighborhood. It cut 15 crops on our farm and in the first few years practically all the corn in the neighborhood. While we are mentioning longevity of farm implements, I might mention that our grain binder has already cut 13 crops, and between hills and stones we have a hard farm on machinery."

Here a small point occurred to me on which I heard careful farmers place a great deal of emphasis, "Do you find," I asked, "that planting in hills is hard on the binder?"

"I can't see," was the reply, "that there is jerk enough in cutting hill corn to make it more advisable to grow corn in drills. There might be where too many stalks are grown to the hill, but we aim to plant only four kernels in a hill and plant such good seed that we are sure that every one will grow. Last year we paid \$3 a bushel for our Wisconsin No. 7, and every kernel seemed to grow. Three dollars a bushel looks like a big price to some farmers, but it comes to only 75 cts. an acre; and what is that to a full crop? We believe in eared corn and not too full planting, and just on the side I might say that I thought that an article in Farm and Dairy recently, written by an Oxford county man, advocating thick planting of corn would have been better in the waste paper basket."

"How about having equipment?" I next inquired.

"We used a side-delivery rake and a hay loader for the first time last season," Mr. Ballantyne informed me. We hesitated some time before making this investment, as men with experience did not seem to be unanimous in endorsing either implement. Last year, however, we had a lot of hay and were short of help, and we were practically forced to buy these implements. We would not be without them. Haying is a

(Concluded on page 12)



Wide Working Implements Economize Man and Horse Labor.

All that is required to complete the equipment illustrated is a harrow cart on which the driver may ride. Such a cart has been in use on the Ballantyne farm for 10 years.

ing profitable with these extensive farmer-dairymen.

"One thing you want to make plain," remarked Mr. Ballantyne, as we strolled out to the implement house, "is that we never buy small implements if we can get large ones. We have no use for two-horse seed drills, two-horse harrows, single-row cultivators, and such like. Big implements call for more horse-power and less manpower. We can get lots of horses. Our trouble is to get good men. It is on this principle that we have acted in buying new implements and in discarding old ones."

A Harrow Cart Used

"We aim to make work easy for ourselves and our men as well as to use our time efficiently," remarked Mr. Ballantyne a moment later, as we stopped to look at a harrow cart. "We bought that harrow cart 10 years ago. Some people say we are lazy for owing such an implement. But did you ever watch men harrowing? Nine-tenths of them will tie the lines around their body and let the horses drag them. Our cart weighs 75 pounds, and the horses pull the man from the traces, not from the bit. We use a four-section harrow with three horses, and it is lighter per horse than a three-section harrow with two horses. Even when we add the weight of the harrow cart to the four-section harrow, the draught per horse is still less. And you would be surprised at the difference in the amount of work you can do in

farm. We find that the two-row cultivator as man and horse labor is a two-row check row



The Well Equipped Farm Workshop is a Money Saver.

The workshop of W. C. Good, Brant Co., Ont., here illustrated, is equipped with a bellows and forge, an emery stone and a turning lathe in addition to the ordinary equipment of the farm shop. In it, Mr. Good spends many profitable hours. The need of such a shop on the farm increases just in proportion as the number and value of farm implements increases.



"MADE IN CANADA"

Ford Touring Car Price \$590

Your neighbor drives a Ford—why don't you? We are selling more Fords in Canada this year than ever before—because Canadians demand the best in motor car service at the lowest possible cost. The "Made in Canada" Ford is a necessity—not a luxury.

Buyers of Ford cars will share in our profits if we sell 30,000 cars between August 1, 1914 and August 1, 1915.

Runabout \$540; Town Car \$840; F. O. B. Ford, Ontario, with all equipment, including electric headlights. Write Ford Factory, Ford, Ontario, for catalogue F.



ONTARIO FARMERS

We Want You to Fertilize with

Sydney Basic Slag

WHEN YOU SOW YOUR FALL
WHEAT THIS SEASON

The finest crops of Fall Wheat, presently growing, were fertilized with Sydney Basic Slag. Mr. E. Platts, R. R. No. 2, Welland, has a field which when measured on 12th May, stood 26 Inches. It received no other fertilizer than Sydney Basic Slag. We want farmers of good financial standing to take our agency where we are not already represented. If this proposition interests you we will have our representative call on you at once, and we will with pleasure pay your expenses to inspect the field above referred to. Sydney Basic Slag gives results at less cost than any other fertilizer in the market.

Write us NOW

The Cross Fertilizer Co., Ltd.

SYDNEY, NOVA SCOTIA

Utility Pipe Wrench

THE following description gives a very simple method of turning a pipe without tongs or pipe wrenches: Use a common wrench and a piece of old round file. Place the wrench on the pipe, and set it so as to leave a little space between the pipe and the jaws of the wrench. Place the piece of file as shown, and the



wrench is ready to turn the pipe. Two wrenches may be used the same as two pipe wrenches by reversing one of them so as to grip in opposite directions.—Grain Growers' Guide.

Utility Uses of the Automobile

J. B. Donaldson

THE city business man of any standing considers a motor car a necessity. It is necessary to his dignity as a business man and to the social standing of his wife and daughters. From the standpoint of utility I doubt if such a conveyance is necessary to any city man, except the real estate agent. In reality it is a near luxury.

In the country, too, it is still a luxury and used as a means for getting more enjoyment from rural life. As such it performs a very important function. Too many pleasure trips are never taken and too many visits never made because the horses are tired or unable to make the trip in a limited time.

As a business proposition there is more to be said in its favor on the farm than in the city. Trolley cars or steam coaches are not generally within easy reach when a machine breaks in the midst of seeding, haying or harvesting operations. In such circumstances the time saved by the automobile is worth real money.

In fact, in these times of rush production the car is often a valuable time saver to the busy farmer. Then, too, it can often be made to supply the motive power for doing odd jobs. For instance, Mr. D. B. Smith, Oxford County, uses his Russell for driving the grindstone and washing machine, and it takes the place of a team of horses on the hay fork rope. It often makes a trip to the mill with material for chopping during a time when horses are busy.

These are only a few of the strictly utilitarian uses to which a good motor car can be put. It may not always pay for itself as a purely business proposition. As a luxury, which can at times be put to profitable use, the automobile is worthy of consideration.

Homeseekers' Special Train Leaves Toronto 10:45 p.m. Each Tuesday, Commencing June 1st 1915

For the accommodation of Homeseekers and general tourist traffic to Western Canada, through train carrying Tourist Sleepers and Colonist cars will commence June 1st, leave Toronto 10:45 p.m. each Tuesday until further notice, running through to Winnipeg.

Attention is directed to the remarkably low round Trip Fares in connection with Homeseekers' Excursions to Western Canada via Canadian Pacific Railway. Tickets are on sale each Tuesday until October 26th inclusive, and are good to return within two months from date of sale.

Apply to any C.P.R. agent for full particulars, or write M. G. Murphy, District Passenger Agent, Toronto.

CORRUGATED IRON

Galvanized, Rust Proof
Made from very finest sheets, absolutely free from defects.

Each sheet is pressed, not rolled, corrugations therefore fit accurately without waste. Any desired size or gauge, straight or curved.

LOW PRICES—PROMPT SHIPMENT

Metallic Roofing Co., LIMITED

Manufacturers
TORONTO & WINNIPEG

RIDER AGENTS WANTED

everywhere to ride and exhibit a famous post bicycle.

We ship on approval to all countries. We sell on deposit, and show **10 DAYS TRIAL** to all who order. We will not let an unsold order bring us any loss.

DO NOT BUY of Agents, Dealers or Dealers of any description unless you see the **Illustrated Catalogue** which will define our special proposition. The low prices will astonish you. **ONE CENT** per copy. Write us a postal note and we will send you a copy. Do not wait. Write us now.

WYSLOP BROTHERS, Limited
Ride & TORONTO, Canada

Peck, Kerr & McElderry

Barristers, Solicitors, etc.

416 Water St., Peterborough
E. A. Peck F. D. Kerr V. J. McElderry

WHITE AND COLUMBIA WYANDOTTES, LIGHT BRAMMAS, E.C. WHITE LEGHORNS Over 30 years a breeder. Stock and Eggs for Sale.

Michael K. Boyer, Box 23, Hammonnton, N.J.

THICK, SWOLLEN GLANDS

that make a horse Wheeze, Roar, have Thick Wind or Choke-down, can be reduced with

ABSORBINE

also any Bunch or Swelling. No blister, no hair gone, and horse kept at work. Concentrated—only a few drops required at an application. \$2 per bottle delivered.

ABSORBINE, JR. antiseptic liniment for making, reduces Cysts, Wens, Painful, Knotted Varicose Veins, Ulcers. \$1 and \$2 a bottle at dealers or delivered. Book "Hygiene" from W. F. YOUNG, P.O. Box 123 Lyons Mass. Montreal Can. Absorbine and Absorbine, Jr., are made in Canada.

Johnny-on-the-Spot

"Johnny-on-the-Spot" an alkali or on truck, will take care of all your churning, pumping, separating cream, pulping, churning, etc.

Stop wasting your time and energy in useless drudgery! Let "Johnny-on-the-Spot" do it—one of the famous Giesse "Goes Like Sissy" Line—a high quality engine in a new case. WRITE FOR CATALOGUE AND FULL PARTICULARS. ALL SIZES.

Gilson Manufacturing Co.

Limited
2510 York St., Guelph, Ontario

75¢

June 3, 1915

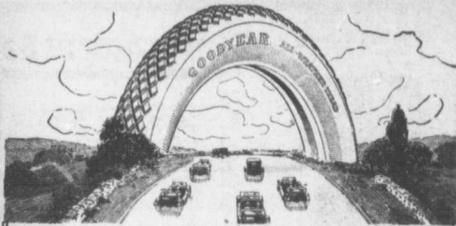
The

I FEAR to
large m
in seed
mers this
both lack
dealers and
some men
what condit
some farm
times cheap
very deprec
It is expec
large numbe
to buy the
even the best
ed with sh
tendency to
is giving cr
those who h
handling i
condition. I
a number
catering to
They are l
its introd
because of
shelled corn
There are
here and
are the re
trade. Th

The Bin
We take th
without it
civilization
and accom

eastern de
get it much
than he ca
He places
shelled and
feed corn
and no gra
too damp,
the retailer
more moist
phere. It i
cotton bags
sell the bag
cost there,
room of th
and he sta
in a body
What happ
the cultu
and p

Just rec
of this kin
hinges on
His corn
country de
shipments
they were
them in th
over 80 pe
have been
taken out
couldn't de
in the bag



The Royal Road Begins When You Ride on Goodyear Tires

Try them a little while. They have smoothed out the rocky road of tire troubles for thousands of motorists.

Because Goodyears are fortified 5 ways against the major tire troubles. And yet they cost you 37 per cent less than two years ago.

Best For Farmers

Last year men bought in Canada as many Goodyear Tires as there were cars. Thousands of these Goodyear users are farmers, too.

These men want tires that turn rough roads into royal roads. They want the least risk of tire

years. And so in every farming section, you'll meet these men driving on the royal Goodyear road.

You, too, should try these tires. Let them reveal the five costly ways in which they protect you from tire troubles—against rim-cuts, against blowouts, against loose treads, against punctures and skidding. And no rival tire has these Goodyear features.

Prices Reduced

Despite the war tax, we made another big reduction February 15th. That was three reductions in two years, totaling 37 per cent.

Today Goodyear Made-in-Canada Tires offer you more for the money than any tire ever gave you before. Ask any dealer for our new price on the size you use.



No-Rim-Cut Tires—"On-Air" Cured With All-Weather Treads or Smooth

The Goodyear Tire & Rubber Co. of Canada, Limited

Head Office, Toronto, Ontario
 Branches at: Montreal, Quebec, Winnipeg, Vancouver, Regina, Saskatoon, Edmonton, Calgary, and other cities.
 The Goodyear Tire & Rubber Co. of Canada, Limited, has no connection with any other Canadian company using the Goodyear name.

OUR ADVERTISERS ARE GUARANTEED

Every advertiser in our columns is guaranteed to be strictly reliable. Should you be dissatisfied with any dealings with our advertisers we will consider it a favor if you will advise us. Remember that we will stand your loss, provided of course you mention Farm and Dairy at first writing.

A Prompt Decision to install a Premier Cream Separator Will Bring You Dollars

The greater the quantity of milk you are handling the heavier your loss if you are using an inefficient separator. Trade it in on a PREMIER which will save its cost and make money for you.

Terms from our nearest Agent or from Dept. "D."

THE PREMIER CREAM SEPARATOR CO.
 TORONTO, ONT. ST. JOHN, N.B.

ALL BRITISH



Simple Construction High-grade Material and Workmanship Service—lasting and satisfactory



A Modern Power Sprayer at Work in an Old But Well-kept Orchard.

HORTICULTURE

A Profitable Side Line

THE orchard is one of the profitable side lines on the farm of Mr. Neil McMillan, in Halton Co., Ont. Perhaps it would be more correct to say that the orchard was at one time an important side line. In recent years it has assumed a place of first importance, and is one of the biggest income makers on his 100-acre farm. Most of the 10 acres is in Spies with a group of Greenings in one corner and Wagners in another. The Spies are very nearly in a solid block. "Yes we have heard that Spies will not fertilize if planted in large solid masses," remarked Mr. Jack McMillan, the proprietor's eldest son, to an editor of Farm and Dairy who was inspecting the orchard. "We, however, have no trouble with fertilizing, the fruit setting properly and well."

This orchard was set almost 30 years ago. It was always kept fairly well pruned, but was never sprayed until the McMillans became members of the Milton Fruit Growers' Association. The rules of this association require spraying. "We would spray now whether we were compelled or

not," said Mr. McMillan. "The advantages in the quality of fruit now than pays for the work. At first we sprayed four times; in the spring before growth started, again just before the buds burst, a third spraying before the blossoms opened and a fourth spraying after the blossoms had fallen. Since then we have tried three sprayings, cutting out the second. We do not know which method is best. The first spraying is for scale and the rest for codling worm."

Orchard practice consists in cultivating about once in two weeks. No cover crop is sown and after July, when cultivating is discontinued, weeds soon make a good cover crop. The orchard is plowed each spring and receives an application of barnyard manure every two years.

Now as to the crops. Mr. McMillan informed us that one year the crop totalled 1,023 lbs., leaving \$1,400 clear after picking expenses. In 1913 the crop consisted of 550 lbs. of 75 per cent No. 1 fruit and in 1912 725 lbs. In this latter year the fruit was sold for \$2,000.

The Spraying of Potatoes

W. T. Macoun, Dominion Horticulturist

AT VERNON our experiments of these years we find that at more potatoes per acre from sprayed than from unsprayed plots. It is in the fall of the year that tubers develop most rapidly. Hence if we can take the crop through the dry weather till fall with green tops, the growth from then on will be splendid. The spray mixture that we use is Bordeaux.

We make the first application in the middle of the latter part of July and spray about four times at intervals of about a week to 10 days. Our formula is six pounds copper sulphate, four pounds of lime and 40 gallons of water. To poison the bugs we use a combination of eight ounces of Paris Green and one and one-half pounds of lead to 40 gallons of water. The Paris Green is nicker in its work than the arsenate of lead, but washes arsenate of lead continues to stick to the vines.

Our Best Premium

We offer many premiums. But there is one that is better than the rest.

It is Farm and Dairy. We will send it for one year for two new subscribers.



Good Results from Anconas

S. A. Bell, Bruce Co., Ont.

I PROCURED a setting of Ancona eggs last year, and of these I raised four pullets, which laid 14 dozen eggs from March 17th until May 17th, and are still laying. When they want to hatch, and I shut them in, I have had them lay in three days after I let them out. I set 27 of these eggs, and every egg had a chicken in it (which cannot be excelled). These chickens are bright and doing fine. I have three dozen more eggs set.

I feed my hens mixed grain morning and evening, and chop mash at noon. I also keep water and oxygen shell handy so that they can help themselves.

Poultry Pointers

RUB the window panes well with old newspapers—it will let in the sunshine.

Overgrown fowls are not better in any particular than those of normal size. The breeding, care and selection designed for increasing size, had better be devoted to the development of laying qualities and table quality instead of quantity.

Careful brooding, proper feeding, and the right kind of care, will produce heavy laying in any breed.

Sudden fright and excitement at one tells on the egg crop. Never allow strange dogs about where the hens are.

The first eggs of the brown-egg layers are generally of a good color, but as the hen increases her laying she decreases the amount of color, owing to the gradual loss of the pigment which colors the eggs.

Never send a fowl to market that has a full crop.

Dry-picked poultry will stand longer shipments than those that are scalded.

In dry-picking pluck the feathers while the body is still warm.

James Rankin says he never sold a broiler in his life, for the reason that the broiler age is just the time when all the danger of mortality has passed.

The last two or three pounds can be put on much cheaper than the first. Whoever raises beef or pork knows that this is so. He holds his chickens until they are four and a half months old.

A Woman's Poultry Profits

Mrs. George A. Moffat, Dundas Co., Ont.

I HAVE kept an exact account of all receipts and expenditures of my flock of "Bred-to-Lay" Barred Rocks for the year 1914. Perhaps they may be interesting to some Farm and Dairy readers.

I began the year with 68 pullets and 25 hens in their second year, but sold from time to time until at the first of September I just had 35 pullets left.

These I kept over for breeders. I housed my hens and pullets separately for I find the feed required for laying pullets is almost certain to make hens overfat. My first 1914 pullet was hatched April 9th and began to lay Sept. 2nd. Part of the chicks were hatched and reared with hens, and the remainder were hatched with a Prairie State incubator and brooded with a Cramer's portable hover, both of which proved very successful. The receipts are as follows:

Eggs shipped to market and sold for hatching	\$261.34
--	----------

Eggs used in the home and for hatching	32.85
Poultry sold live and dressed	140.00
Extra stock on hand	35.00
Total receipts	\$441.35
Expenditures	\$71.69

Wheat	32.85
Onion	15.00
Corn	25.00
Iran	24.70
Providence	18.43
Shorts and low grade flour	28.96
Beef scrap	5.00
Chick feed	4.80
Eggs for hatching	25.25
For cases	3.45
Grit and Oyster shell	4.44
Express and mail charges	5.67
Coal oil, sulphur and Williams' spray	4.00
Advertising	1.80
Total expenditures	\$76.54
Total receipts	\$441.35
Total expenditures	38.58
Total profit	\$344.21

When Goslings Hatch

By Michael K. Boyer

THE broody goose plucks off more or less down from her breast with which to line the nest and cover the eggs whenever she leaves them. Her brooding season, and even goose when sitting, or in defence of their young, manifest considerable courage and often punish intruders severely. When interfered with they seize the intruder with the bill, strike with the wings, and sometimes scratch with the claws. They have sufficient power in the jaws to bite quite hard, and a large, full grown gander has been known to strike hard enough with the wings to break a person's arm.

When a goose is hatching she must be watched, but not disturbed.

The actions of the gander at this time are interesting. He keeps standing on one leg for weeks—probably his way of doing penance—and has one eye half shut, keeping guard that nothing can approach the nest. Just as soon as the first gosling breaks the shell, the gander rises and tries to get his defence closer, and stands or walks on both feet now. Should one approach the nest, the old goose will stretch out her neck and resist the intrusion for her utmost, while the gander will execute a flanking movement that is very disconcerting.

Young goslings quite frequently roll over on their backs while in the pasture, and unless righted will lie in that position until they die. They are unable to recover themselves. If the mother of the unfortunate gosling is a goose, she at once understands the young one's predicament and quickly rights it, showing wonderful example of intelligence; should the mother be a hen, she does not know what to do, and the consequence is that the little one is allowed to lie there and struggle until it is dead.

Farmers still in need of help are advised to write the Civic Employment Bureau, 130 Richmond Street West, Toronto. Mr. Newman of that Bureau writes Farm and Dairy that they have men on their list who are willing to work on farms, some experienced and others inexperienced, also boys who are willing to go out and learn to be farmers. No fees are charged by this bureau and all are at liberty to write for further information.

Don't go to town with your cowhide boots and your overalls on. Your occupation deserves better of you; so does your family.—Andrew Broder, Dundas Co., Ont.

The critical period in the young turkey is generally at an end when six weeks of age. Inbreeding, lice, dampness and improper food, are the main causes for great mortality.

The Ontario Government Says



In Ontario Government Bulletin No. 226, entitled "Lairring on the Farm," the advice is given:

"In choosing a separator it is advisable to select one that is simple in construction, strong, durable, with reasonable care, and having all parts, which come in contact with the milk, easily washed."

The writer of this Bulletin might readily have had the

Standard

cream separator in mind for he chose three of the points on which the standard is unobtainable. The simplicity of the Standard is a mechanical triumph. Its durability is insured by the use of the highest grade materials, exact manufacturing methods, rigid inspections, running tests at the factory, splash oil system, etc. Its bowl and discs contain no crevices or places that are hard to clean. Washing them "as clean as a tea cup" is no trick at all.

But there are other reasons for selecting the Standard—reasons of slow-skimming of larger profits. But we cannot go into details. Our latest cream separator booklet does that in a way that cannot fail to open a dairyman's eyes. Send for a copy.

The Renfrew Machinery Co. Limited

Agencies Almost Everywhere RENEW, ONT.

"Made-in-Canada" and a Credit to Canada.

PROTECTION FOR YOU

To mention FARM AND DAIRY when writing to our advertisers. It insures you against loss. Note our Guarantee on Editorial Page

25 CENTS

WONT BREAK—WONT BIND

Griffith's Handy Tie is as strong as two knots, but it won't bind. You could tie or untie it with mitts on. It's as handy as a snap and ring, but it won't break. If your dealer can't supply you, send a quarter and get one by mail!



Griffith's Handy Rope Tie

You can see dozens of Griffith's money-savers at your dealer's. Ask him for our list of famous specialties. Or write to us, mentioning this paper. We will see that you get our goods at regular prices. This is our guarantee.

G. L. GRIFFITH & SON, 74 Waterloo St., Stratford.

August 26

You can make YOUR EXHIBIT at

The Toronto International

Give you better service and have it much more appreciated by having it before the readers of FARM AND DAIRY in our

Exhibition Special

Above is the date. Send your reservations early

RURAL PUBLISHING CO.
PETERBORO ONTARIO

Implements that Help to Solve the Labor Problem

(Continued from page 7)

job for which we did not formerly have much love, but it is little trouble now.

"I don't believe it is the best way to handle alfalfa, but we have been putting it in greener than ever. We find that if every sling full of alfalfa is torn apart and spread out in the mow, that the hay will heat, but it will not get musty. What we lose in hay through not cocking is not equal to the saving in labor through the side delivery rake and hay loader method of curing."

Speaking of the loader particularly, Mr. Ballantyne said: "We have heard the loader objected to in that it is too hard work for the man on the load and on the horses. Men who have tried this difficulty, I believe, make too big windows. A neighbor of ours runs four swaths together and then works like a slave to keep the hay back from the loader. If the crop is very light we run four swaths together, but in an ordinary crop, two swaths is enough and a man can handle these almost without sweating."

Harvest and Threshing Concurrently
An outstanding feature of the Bal-



An Implement No One Can Afford to Use Now—Days.

The old V-shaped, home-made harrow has had his day. High-priced mass and horse labor make the type illustrated on page 7 of this issue more desirable and profitable.—Out courtesy Commission of Conservation.

lantyne methods, and one with which I was previously unacquainted, is the way in which they handle the harvest. Three men do all the harvesting and threshing, and when the harvest is over threshing also is done. They do

not spend the whole fall exchanging help with their neighbors, nor do the women of the house have to go to the trouble and expense of preparing the trouble and expense of preparing a big threshing diener. The junior partner, who is also the mechanical

genius of the firm, explained their system to me.

"Our equipment," said he, "consists of a 17 h.p. steam engine and a modern separator. The steam engine is also used for silo filling, crinding and rolling grain and sawing wood. We use flat, broad racks on low trucks. There are broad ladders before and behind and rails at the side to support the load. Father takes one team and the man the other. I run the threshing outfit. Our separator is equipped with a self-feeder and the man on the load throws off his load right on to the feeder. The blower puts the straw just wherever we want it in the barn. We have a grain elevator running from the machine, which carries the grain and drops it directly into the bin in the granary. This method makes the harvest somewhat slow; we are a little more dependent on good weather, but we have been following it for 13 years, and regard the method as the best. I must not forget to mention that the straw is also cut at threshing, making it easier to handle in the stable and in the manure."

"There is too much money invested in our machinery for a 300-acre farm," said Mr. Ballantyne as we ended our tour of inspection, "and there is too much money invested for a 300-acre farm to allow the machinery to rust out instead of wear out."

Implements Are Under Cover

And the machinery does not rust out. The implement shed on the farm is about 40 feet square, and being built on a steep side hill, has been possible to make it three floors high. Two of these floors are used for implement storage, and the 3,200 square feet of floor space, with what is available in the barn in addition, provides ample room for keeping all implements under cover.

The implements that I have mentioned are only a few of those that are paying dividends on the Ballantyne farm. "The equipment also includes two small gasoline engines. One of these does duty at the house, pumping water and running an emery stone. It also runs the washing machine and wringer". A trap board is removed from the kitchen floor, a belt run up from a pulley on the shaft below, and manual labor on washday is largely dispensed with. The second gasoline engine at the barn pumps water into an overhead tank, or, attached directly to a hose, is used for washing rick. As other implements come on the market, their merits will be investigated, and they will be adopted if they promise to pay. In this way W. W. Ballantyne and his son hope to keep ahead of the labor problem.

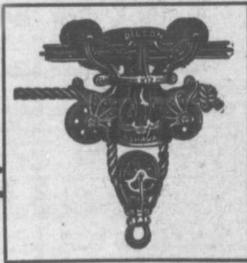
Cutting into the Implement Bill

(Continued from page 5)

elves. Two other neighbors have a complete potato planting and potato digging outfit.

The high cost of implements is one of the most serious difficulties that the small farmer has to face. He cannot get on very fast driving a one-row cultivator while his neighbor with a farm twice the size is riding a two-row cultivator, and so all along the line. If small farmers could get together in the ownership of wide working, efficient implements, combining their horse power if need be for special operations, the small farm would not be at such a disadvantage. Of course, it is nice to have the implements on hand the very day we need them or think we need them. Before we buy, however, we should figure very closely whether the interest on the capital invested in implements along with depreciation does not amount to more than the advantage of having the implements on hand for the hour we need them. If we figure along this line we can make another good cut in the implement bill—if the neighbors are willing.

Our Guarantee Protects You



WE agree to allow anyone thirty days to test out any of our goods, and if at the end of that time they do not prove perfectly satisfactory to you they can be returned to us and we will pay the freight charges both ways, and also refund any money you have paid on the purchase.

DID you ever stop to realize that every time you do business with an agent, you are paying out a tenth of your hard earned money for nothing.

You help pay his rent, his travelling expenses, the up-keep of a horse, his salary and a great deal else—say, \$2,500 for every agent, \$250,000 for a 100 agents.

What do you get in return? You get your litter carrier, your hay fork, your stable equipment, your implements, at a "direct from the factory price" plus your share of the agents commission. Now when you need anything in Barn or Stable Equipment, why not

BUY DIRECT FROM THE FACTORY CUT OUT THE AGENTS' PROFIT

Our Hay Tools, represent the best and most up-to-date on the Canadian market. Carriers for wood, Steel and Iron Rod Tracks; also a full line of Forks, Slings, Pulleys, Hooks, Hangers and Tracks.

Of course you also know that we manufacture Feed and Litter Carriers, Stanchions, Barn Door Hangers and Latches, Hardware Specialties, etc.

If you are in the market for even a few dollars worth, we can save you money, and at the same time give you the best value going.

Write for Catalogue and Prices

We Pay Freight in Ontario

R. DILLON & SONS

26 Mill Street

SOUTH OSHAWA, Ont.

ALL since the find there always been patrons and From Bible that Job, who authorities a Abraham, ha which he en a very great also enjoined work, for we of Gera, aft he reaped an All historie with the laurich in produ that beside her own popu od to less a memo stores

Britain When we of Britain before we can find of the soil, I hold away, p gressed rapidl when they we le-Saxons. Bu given to the arts of tillage the whole out farming. Som tions may be that associat enable a yoke be kept for the members. An soted that no to guide a, pl make one, at plow should b twisted willow

If we turn in his'ry of find at the summer fallow turnips and plow of the plow, that period of Scotland rapid took that v which they a

Plow I can rem old time plow vogue, that t won by Scoto now with the



Ch This picture sh for this machi covance on the entral show, the pipe which now down somewhat the trough over turnips, beets, n farm operation

FARM AND DAIRY

AND RURAL HOME
PUBLISHED EVERY THURSDAY



SUBSCRIPTION PRICE, \$1.00 a year. Great Britain, \$1.20 a year. For all countries, except Canada and Great Britain, add 50c for postage.

ADVERTISING RATES: 15 cents a line (10 words) an insertion. One page 60 inches, one column 15 inches. Copy received up to Saturday preceding the following week's date.

UNITED STATES REPRESENTATIVES
STOOKWELL'S SPECIAL AGENCY
Chicago Office—People's Gas Building
New York Office—Tribune Building

CIRCULATION STATEMENT
The paid subscriptions to Farm and Dairy exceed 18,000. The actual circulation of each issue, including singly in advance and sample copies, varies from 18,100 to 19,000 copies. No subscriptions are accepted at less than the full subscription rates.
I solemnly declare that the above is a true and correct statement of circulation of the paper, showing its distribution by counties and provinces, will be mailed free on request.

OUR GUARANTEE
We guarantee that every advertisement 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 decline to accept our readers, we turn away all unscrupulous advertisers. Should any advertiser herein deal dishonestly with you at one time, or induce unscrupulous subscribers, we will make good the amount of your loss, provided such transaction occurs within one month from date of this issue, and that it is reported to us within a week of its occurrence, and that we find the facts to be as stated. It is a condition of this contract that in writing to advertisers you state: "I saw your advertisement in Farm and Dairy."

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

The Rural Publishing Company, Limited
PETERBORO, ONT.

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

Power on the Farm

"WHAT kind of power do you use?" we asked a Western Ontario farmer a few weeks ago. His answer was: "Horse power, man power, and Hydro-Electric when it comes along."

His reply, we fear, indicates all too truly the attitude of many farmers who feel that they need motor power on their farms, but hesitate to invest in any of the various forms of power that were doing good farm power service for many years before Hydro-Electric was even thought of. Where there is a possibility of Hydro-Electric lines reaching the locality in a measurably short while, such caution is to be commended. Farm and Dairy would remind farmers generally, however, that even under the best conditions it would have reached more than a small percentage of Ontario farmers, and with the war and the depressed financial conditions of the present, that day has been even further deferred. Gas, gasoline, and wind motors still have a big place to fill in our farm economy, and it is poor management to do without power for years in the vain hope of electric connections.

The Machinery Investment

A PROBLEM that ever confronts the Canadian farmer is the choice of implements for his farm. Some farms are over-stocked with machinery and the depreciation, interest, and repairs eat up much of the profits. This is one extreme that must be avoided. At the same time labor is scarce, expensive, and often inefficient, and a greater expenditure is justified than would have been warranted a few years ago.

Most farms, we believe, are under-equipped rather than over-equipped. In increasing equipment, however, the increasing expenses must ever be kept in view, or the advantage in the saving of man labor will be more than counterbalanced

by additional expenditures. This is an important consideration.

Assuming the average depreciation on machinery at ten per cent, and the interest on the money invested at six per cent, we have an average yearly expense of approximately \$13 on each one hundred dollars invested in machinery. A man who has \$1,500 worth of machinery would have \$195 expense on this alone in interest and depreciation. If his work could be done with half this amount, he could save \$97.50. This would be equivalent to the interest on \$1,625 at six per cent.

Depreciation Charges

THE greatest item to be charged against machinery equipment is depreciation. An annual depreciation in value of ten per cent, of the first cost price is a fair average. This item, however, may be considerably reduced by proper care. For instance, while the average binder on the Canadian farm lasts only seven to ten years, we have seen some binders ready for the scrap heap in four years, and only last summer we witnessed a binder doing good work in cutting its twentieth crop. Some of our friends have discarded mowers in six years and another has used the same mower for nineteen years, and it still does good work.

The biggest factor in rapid depreciation is not lack of shelter, but rough usage, lack of oil, and insufficient attention to needed repairs and readjustments. The exposure to the weather, however, is serious enough in its effect on expensive equipment to make it inexcusable from the standpoint of economic management. Depreciation charges, too, are enhanced by the investment in every new machine that comes on the farm. Before investing in a new machine, the following questions should be carefully considered:

Will the use of the new machine give me a larger net return from the crops on which it is used?

Will the new machine reduce the demand for man labor?

Where a machine is required only a few days each year, can it not be rented more cheaply than purchased?

Will the machine to be invested return more if invested in some other way?

Has the machine been thoroughly tried by others and found satisfactory?

Efficiency of Lightning Rods

IF the summer of 1915 is a normal one, several hundred Canadian farmers will lose the savings of years in disastrous fires occasioned by electric storms. Insurance very seldom covers the full value of the premises destroyed. The loss is all the more regrettable because so easily and cheaply prevented. Investigations conducted by Prof. W. H. Day of the Ontario Agricultural College show that rods, when properly installed, are almost one hundred per cent. efficient. If any additional proof were necessary, it has been afforded by Prof. J. Warren Smith of Iowa.

Prof. Smith has been inquiring into insurance statistics in his state. He finds that in 1913 and 1914 there were 1,845 insured buildings struck by lightning. Of these, sixty-seven were rodded. As thirty-one per cent. of all the buildings insured by the two hundred companies were rodded, five hundred and seventy-two buildings would have been burned instead of sixty-seven had lightning rods afforded no protection. In the case of five companies carrying insurance on eighteen thousand buildings, half of which were rodded, not a single building has been burned, or even materially damaged by lightning, and this record was made throughout a period of thirteen to twenty-five years. In cases where rodded buildings were destroyed by fire, investigations showed that the rods had not been properly installed, or were in poor condition. Lightning rods are

cheap fire insurance in any district where electric storms are common.

Developing Leaders

ARE district representatives, Farmers' Institutes, and other movements which derive their stimulus, financially and otherwise, from Government officials, "demoralizing and pauperizing the farm community intellectually" and "robbing farmers, as a class, of initiative?" Such a question would receive an immediate and affirmative negation from anyone connected with any of these movements. The charge has been made, however, and by well-informed farmers who state that such is the natural effect of too much "government pap" for agriculture. The charge is too serious one to be dismissed without consideration. If farmers are coming to look more and more to the local representative of the Departments of Agriculture to do their organizing for them, there is cause for grave uneasiness.

What rural Canada needs is local leaders; men who make their living from the land and are in sympathetic understanding with rural aspirations and rural problems. It is only through such leaders as these, the "Agricultural Moses" kind, as Prof. Dean calls them, that rural Canada will ever find expression. If district representatives wish to be of maximum benefit in their constituencies, they will develop leaders rather than lead themselves. We fear that in the excellent personnel of the administrators of agriculture in the past, there have been more leaders than actual leader developers. This danger was freely discussed when the district representative movement first had its birth in Ontario. All opposition was silenced for a few years, but now the old objection is being again voiced. Is it because the worst fears of early opponents are being realized?

The Man with the Hoe

"IF you wanted to scrape the mud from your shoes, you couldn't find a toose chip in the barnyard when speaking of a neighbor whose farm was one of the show places of his community. We have had several chats with that same neighbor. As long as our talk was confined to the growing of crops and the feeding of stock he was interested. Just as soon as we started to speak of anything outside of his nest boundary fences, he lost interest and tried to switch back the conversation to the problem of his own farm.

That man is a good farmer, but a mighty poor citizen. He stays too close to his work. He has forgotten that he lives in a beautiful world full of fine, intelligent people in whose society he could really enjoy himself did he take the time and trouble to get acquainted. He has lost all sense of the pleasure of social intercourse with other folks and in working for the upbuilding of his community. His community has a good rural school; but there is no credit due to him. Social life is improving and the young people are finding the country more congenial; but he contributes no part toward improved conditions. So far as he goes, this very tidy farmer is a success. But what a small and narrow success is his!

At its best country life develops the strongest, sanest, and sweetest type of manhood and womanhood. Too close application to one's own farm is liable to develop the type that has drawn out the country man of older lands the designation of "the man with the hoe." Tidy farms and community spirit together make up for real rural progress.

"I believe that all persons have an equal right to the soil. The Maker of the earth has provided one home, not two homes, for each person, not two farms, but one farm for each farmer."—Gerrit Smith.

A
C
O
M
M
E
N
T
A
R
Y
T
H
E
F
E
E
L
I
N
G
O
F
T
H
E
C
A
T
T
L
E
B
R
E
E
D
I
N
G
I
N
C
A
N
A
D
A
T
H
E
C
E
R
T
A
I
N
I
N
T
H
E
F
E
E
L
I
N
G
O
F
T
H
E
C
A
T
T
L
E
B
R
E
E
D
I
N
G
I
N
C
A
N
A
D
A
T
H
E
C
E
R
T
A
I
N
I
N
T
H
E
F
E
E
L
I
N
G
O
F
T
H
E
C
A
T
T
L
E
B
R
E
E
D
I
N
G
I
N
C
A
N
A
D
A
T
H
E
C
E
R
T
A
I
N
I
N
T
H
E
F
E
E
L
I
N
G
O
F
T
H
E
C
A
T
T
L
E
B
R
E
E
D
I
N
G
I
N
C
A
N
A
D
A
T
H
E
C
E
R
T
A
I
N
I
N
T
H
E
F
E
E
L
I
N
G
O
F
T
H
E
C
A
T
T
L
E
B
R
E
E
D
I
N
G
I
N
C
A
N
A
D
A
T
H
E
C
E
R
T
A
I
N
I
N
T
H
E
F
E
E
L
I
N
G
O
F
T
H
E
C
A
T
T
L
E
B
R
E
E
D
I
N
G
I
N
C
A
N
A
D
A
T
H
E
C
E
R
T
A
I
N
I
N
T
H
E
F
E
E
L
I
N
G
O
F
T
H
E
C
A
T
T
L
E
B
R
E
E
D
I
N
G
I
N
C
A
N
A
D
A
T
H
E
C
E
R
T
A
I
N
I
N
T
H
E
F
E
E
L
I
N
G
O
F
T
H
E
C
A
T
T
L
E
B
R
E
E
D
I
N
G
I
N
C
A
N
A
D
A
T
H
E
C
E
R
T
A
I
N
I
N
T
H
E
F
E
E
L
I
N
G
O
F
T
H
E
C
A
T
T
L
E
B
R
E
E
D
I
N
G
I
N
C
A
N
A
D
A
T
H
E
C
E
R
T
A
I
N
I
N
T
H
E
F
E
E
L
I
N
G
O
F
T
H
E
C
A
T
T
L
E
B
R
E
E
D
I
N
G
I
N
C
A
N
A
D
A
T
H
E
C
E
R
T
A
I
N
I
N
T
H
E
F
E
E
L
I
N
G
O
F
T
H
E
C
A
T
T
L
E
B
R
E
E
D
I
N
G
I
N
C
A
N
A
D
A
T
H
E
C
E
R
T
A
I
N
I
N
T
H
E
F
E
E
L
I
N
G
O
F
T
H
E
C
A
T
T
L
E
B
R
E
E
D
I
N
G
I
N
C
A
N
A
D
A
T
H
E
C
E
R
T
A
I
N
I
N
T
H
E
F
E
E
L
I
N
G
O
F
T
H
E
C
A
T
T
L
E
B
R
E
E
D
I
N
G
I
N
C
A
N
A
D
A
T
H
E
C
E
R
T
A
I
N
I
N
T
H
E
F
E
E
L
I
N
G
O
F
T
H
E
C
A
T
T
L
E
B
R
E
E
D
I
N
G
I
N
C
A
N
A
D
A
T
H
E
C
E
R
T
A
I
N
I
N
T
H
E
F
E
E
L
I
N
G
O
F
T
H
E
C
A
T
T
L
E
B
R
E
E
D
I
N
G
I
N
C
A
N
A
D
A
T
H
E
C
E
R
T
A
I
N
I
N
T
H
E
F
E
E
L
I
N
G
O
F
T
H
E
C
A
T
T
L
E
B
R
E
E
D
I
N
G
I
N
C
A
N
A
D
A
T
H
E
C
E
R
T
A
I
N
I
N
T
H
E
F
E
E
L
I
N
G
O
F
T
H
E
C
A
T
T
L
E
B
R
E
E
D
I
N
G
I
N
C
A
N
A
D
A
T
H
E
C
E
R
T
A
I
N
I
N
T
H
E
F
E
E
L
I
N
G
O
F
T
H
E
C
A
T
T
L
E
B
R
E
E
D
I
N
G
I
N
C
A
N
A
D
A
T
H
E
C
E
R
T
A
I
N
I
N
T
H
E
F
E
E
L
I
N
G
O
F
T
H
E
C
A
T
T
L
E
B
R
E
E
D
I
N
G
I
N
C
A
N
A
D
A
T
H
E
C
E
R
T
A
I
N
I
N
T
H
E
F
E
E
L
I
N
G
O
F
T
H
E
C
A
T
T
L
E
B
R
E
E
D
I
N
G
I
N
C
A
N
A
D
A
T
H
E
C
E
R
T
A
I
N
I
N
T
H
E
F
E
E
L
I
N
G
O
F
T
H
E
C
A
T
T
L
E
B
R
E
E
D
I
N
G
I
N
C
A
N
A
D
A
T
H
E
C
E
R
T
A
I
N
I
N
T
H
E
F
E
E
L
I
N
G
O
F
T
H
E
C
A
T
T
L
E
B
R
E
E
D
I
N
G
I
N
C
A
N
A
D
A
T
H
E
C
E
R
T
A
I
N
I
N
T
H
E
F
E
E
L
I
N
G
O
F
T
H
E
C
A
T
T
L
E
B
R
E
E
D
I
N
G
I
N
C
A
N
A
D
A
T
H
E
C
E
R
T
A
I
N
I
N
T
H
E
F
E
E
L
I
N
G
O
F
T
H
E
C
A
T
T
L
E
B
R
E
E
D
I
N
G
I
N
C
A
N
A
D
A
T
H
E
C
E
R
T
A
I
N
I
N
T
H
E
F
E
E
L
I
N
G
O
F
T
H
E
C
A
T
T
L
E
B
R
E
E
D
I
N
G
I
N
C
A
N
A
D
A
T
H
E
C
E
R
T
A
I
N
I
N
T
H
E
F
E
E
L
I
N
G
O
F
T
H
E
C
A
T
T
L
E
B
R
E
E
D
I
N
G
I
N
C
A
N
A
D
A
T
H
E
C
E
R
T
A
I
N
I
N
T
H
E
F
E
E
L
I
N
G
O
F
T
H
E
C
A
T
T
L
E
B
R
E
E
D
I
N
G
I
N
C
A
N
A
D
A
T
H
E
C
E
R
T
A
I
N
I
N
T
H
E
F
E
E
L
I
N
G
O
F
T
H
E
C
A
T
T
L
E
B
R
E
E
D
I
N
G
I
N
C
A
N
A
D
A
T
H
E
C
E
R
T
A
I
N
I
N
T
H
E
F
E
E
L
I
N
G
O
F
T
H
E
C
A
T
T
L
E
B
R
E
E
D
I
N
G
I
N
C
A
N
A
D
A
T
H
E
C
E
R
T
A
I
N
I
N
T
H
E
F
E
E
L
I
N
G
O
F
T
H
E
C
A
T
T
L
E
B
R
E
E
D
I
N
G
I
N
C
A
N
A
D
A
T
H
E
C
E
R
T
A
I
N
I
N
T
H
E
F
E
E
L
I
N
G
O
F
T
H
E
C
A
T
T
L
E
B
R
E
E
D
I
N
G
I
N
C
A
N
A
D
A
T
H
E
C
E
R
T
A
I
N
I
N
T
H
E
F
E
E
L
I
N
G
O
F
T
H
E
C
A
T
T
L
E
B
R
E
E
D
I
N
G
I
N
C
A
N
A
D
A
T
H
E
C
E
R
T
A
I
N
I
N
T
H
E
F
E
E
L
I
N
G
O
F
T
H
E
C
A
T
T
L
E
B
R
E
E
D
I
N
G
I
N
C
A
N
A
D
A
T
H
E
C
E
R
T
A
I
N
I
N
T
H
E
F
E
E
L
I
N
G
O
F
T
H
E
C
A
T
T
L
E
B
R
E
E
D
I
N
G
I
N
C
A
N
A
D
A
T
H
E
C
E
R
T
A
I
N
I
N
T
H
E
F
E
E
L
I
N
G
O
F
T
H
E
C
A
T
T
L
E
B
R
E
E
D
I
N
G
I
N
C
A
N
A
D
A
T
H
E
C
E
R
T
A
I
N
I
N
T
H
E
F
E
E
L
I
N
G
O
F
T
H
E
C
A
T
T
L
E
B
R
E
E
D
I
N
G
I
N
C
A
N
A
D
A
T
H
E
C
E
R
T
A
I
N
I
N
T
H
E
F
E
E
L
I
N
G
O
F
T
H
E
C
A
T
T
L
E
B
R
E
E
D
I
N
G
I
N
C
A
N
A
D
A
T
H
E
C
E
R
T
A
I
N
I
N
T
H
E
F
E
E
L
I
N
G
O
F
T
H
E
C
A
T
T
L
E
B
R
E
E
D
I
N
G
I
N
C
A
N
A
D
A
T
H
E
C
E
R
T
A
I
N
I
N
T
H
E
F
E
E
L
I
N
G
O
F
T
H
E
C
A
T
T
L
E
B
R
E
E
D
I
N
G
I
N
C
A
N
A
D
A
T
H
E
C
E
R
T
A
I
N
I
N
T
H
E
F
E
E
L
I
N
G
O
F
T
H
E
C
A
T
T
L
E
B
R
E
E
D
I
N
G
I
N
C
A
N
A
D
A
T
H
E
C
E
R
T
A
I
N
I
N
T
H
E
F
E
E
L
I
N
G
O
F
T
H
E
C
A
T
T
L
E
B
R
E
E
D
I
N
G
I
N
C
A
N
A
D
A
T
H
E
C
E
R
T
A
I
N
I
N
T
H
E
F
E
E
L
I
N
G
O
F
T
H
E
C
A
T
T
L
E
B
R
E
E
D
I
N
G
I
N
C
A
N
A
D
A
T
H
E
C
E
R
T
A
I
N
I
N
T
H
E
F
E
E
L
I
N
G
O
F
T
H
E
C
A
T
T
L
E
B
R
E
E
D
I
N
G
I
N
C
A
N
A
D
A
T
H
E
C
E
R
T
A
I
N
I
N
T
H
E
F
E
E
L
I
N
G
O
F
T
H
E
C
A
T
T
L
E
B
R
E
E
D
I
N
G
I
N
C
A
N
A
D
A
T
H
E
C
E
R
T
A
I
N
I
N
T
H
E
F
E
E
L
I
N
G
O
F
T
H
E
C
A
T
T
L
E
B
R
E
E
D
I
N
G
I
N
C
A
N
A
D
A
T
H
E
C
E
R
T
A
I
N
I
N
T
H
E
F
E
E
L
I
N
G
O
F
T
H
E
C
A
T
T
L
E
B
R
E
E
D
I
N
G
I
N
C
A
N
A
D
A
T
H
E
C
E
R
T
A
I
N
I
N
T
H
E
F
E
E
L
I
N
G
O
F
T
H
E
C
A
T
T
L
E
B
R
E
E
D
I
N
G
I
N
C
A
N
A
D
A
T
H
E
C
E
R
T
A
I
N
I
N
T
H
E
F
E
E
L
I
N
G
O
F
T
H
E
C
A
T
T
L
E
B
R
E
E
D
I
N
G
I
N
C
A
N
A
D
A
T
H
E
C
E
R
T
A
I
N
I
N
T
H
E
F
E
E
L
I
N
G
O
F
T
H
E
C
A
T
T
L
E
B
R
E
E
D
I
N
G
I
N
C
A
N
A
D
A
T
H
E
C
E
R
T
A
I
N
I
N
T
H
E
F
E
E
L
I
N
G
O
F
T
H
E
C
A
T
T
L
E
B
R
E
E
D
I
N
G
I
N
C
A
N
A
D
A
T
H
E
C
E
R
T
A
I
N
I
N
T
H
E
F
E
E
L
I
N
G
O
F
T
H
E
C
A
T
T
L
E
B
R
E
E
D
I
N
G
I
N
C
A
N
A
D
A
T
H
E
C
E
R
T
A
I
N
I
N
T
H
E
F
E
E
L
I
N
G
O
F
T
H
E
C
A
T
T
L
E
B
R
E
E
D
I
N
G
I
N
C
A
N
A
D
A
T
H
E
C
E
R
T
A
I
N
I
N
T
H
E
F
E
E
L
I
N
G
O
F
T
H
E
C
A
T
T
L
E
B
R
E
E
D
I
N
G
I
N
C
A
N
A
D
A
T
H
E
C
E
R
T
A
I
N
I
N
T
H
E
F
E
E
L
I
N
G
O
F
T
H
E
C
A
T
T
L
E
B
R
E
E
D
I
N
G
I
N
C
A
N
A
D
A
T
H
E
C
E
R
T
A
I
N
I
N
T
H
E
F
E
E
L
I
N
G
O
F
T
H
E
C
A
T
T
L
E
B
R
E
E
D
I
N
G
I
N
C
A
N
A
D
A
T
H
E
C
E
R
T
A
I
N
I
N
T
H
E
F
E
E
L
I
N
G
O
F
T
H
E
C
A
T
T
L
E
B
R
E
E
D
I
N
G
I
N
C
A
N
A
D
A
T
H
E
C
E
R
T
A
I
N
I
N
T
H
E
F
E
E
L
I
N
G
O
F
T
H
E
C
A
T
T
L
E
B
R
E
E
D
I
N
G
I
N
C
A
N
A
D
A
T
H
E
C
E
R
T
A
I
N
I
N
T
H
E
F
E
E
L
I
N
G
O
F
T
H
E
C
A
T
T
L
E
B
R
E
E
D
I
N
G
I
N
C
A
N
A
D
A
T
H
E

20 Cows Milked in One Hour by One Man

A Modern Mechanical Milker Makes the Feat Possible

COMMERCIAL dairy farmers by the hundred have been adopting the milking machine. Dairy cattle breeders with pure-bred herds have been more cautious. With them the certain wellbeing of their cattle is of more importance than the extra work that hand milking involves; hence the attitude of the breeder has been, "You have to show me." Among the few breeders who are demonstrating the feasibility of the milking machine for even pure-bred herds are Arbogast Bros., of Sebringville, Ont. A few days ago one of the editors of Farm and Dairy called at the Arbogast farm and had Mr. Dave Arbogast, the cattle specialist of the firm, tell of their experience with the mechanical milker.

"We are mighty well satisfied with it," was the opening declaration. "We have used it every day since last December. For three weeks last winter two of us were minding it. During that time I milked our 20 cows myself and did it all in one hour. I had to jump

men now want to do the milking. Formerly it was the most dreaded job on the farm. We have let them do it themselves a couple of times when we were away, and they did it fine. As a result, we do not now feel tied to the farm. We can now go to a fair or a sale or off for a Sunday and know that the men will take an interest in the milking of the cows off."

"I suppose you have heard everywhere from men who don't use milkers, that the machine tends to dry the cows?" "Well, we have to discontinue milking by machine and milk by hand when we want to dry our cows," was the very conclusive reply.

"Machine For Official Test Work
"Have you used the machine in official test work?" was the next query.

"We have tested only one animal with the machine. She was a two-year-old heifer, and hard to milk. It was for the latter reason that we

Advice Gratis on All Farm Problems

By Mail

HERE'S a new thing "under the sun" which the "Wise Man" said there was none. To the very thing now. To tell a man how. His farm should be properly run.

No matter how little your wad of knowledge pertaining to sod. Or tilage, or drought. During that time I milked our 20 cows myself and did it all in one hour. I had to jump

There's only one calling you know That has failed to "efficiency" show, And that is the sheep. Who was reeked, was the lap Of Dame Nature. He's "awfully slow."

If the cost of "high living" should soar, Quick the parasite idlers roar. To the man on the farm. Who was reeked, was the lap Of Dame Nature. He's "awfully slow."

When a cloud gathers over the sky, The nation in panic will fly To hand out a slice Of gratis advice To the fellow who's reaping his rye.

It "ain't a gold-darn" his of use To "holer" and you want to show how. Put your hand to the plow. The "adviser" can "go to the deuce."

When the national skies are all blue And the banners we're used to go through, Are past, raise a cheer For the brave cavalier Who "advised" what the farmer should do.

For his country the farmer should fight If he didn't he wouldn't do right. His sons should enlist And smite with their fist. Till there was no left in sight.

His patriot love ought to show And try, without helpers, to grow More milk and more meat, 'Till there was no left in sight. No matter if prices are low.

His lesson in "loyalty" learns From the panley business concerns, Who cried: "Rubeen dead," Telling the unemployed here, And feed them till summer returns.

The chronic advisers of late Tell the farmer to quicken his gait. He says "you can't," If it pays him to sweat, And he won't if it pays him to wait.

to do it, but the fact that it could be done shows how independent one can be of hired help when there is a milking machine around.

"That is just the reason we put our machine in," he added. "To get around the hired help problem. We are confident that our machine will do it, as the men did and saves half the time. We all used to quit at five o'clock in the fields and come home to milk. Now during rush seasons I can do the milking alone in the evening. In the morning we don't have to get up so early; half-past five is now the rising hour instead of five."

The Amount of Stripping
"How close does the machine come to milking the cows out dry?" we inquired.

"It acts differently with different cows," replied Mr. Arbogast. "Some cows are milked absolutely dry and in a few cases it is necessary to strip out by hand as much as a pint of milk. Before we got the machine, however, we had to strip the cows anyway, as we could not trust some of the milkers. Now we have an advantage in that we know which cows we have to strip.

"The machine has brought a most recent change in the attitude of all our men towards milking," remarked Mr. Arbogast before we got off the hired help problem. "Actually the

used the machine. We were testing three heifers at the time and we thought it the least of this particular one. She was the youngest and smallest. To our surprise, she made the best record of the three."

Speaking further of the machine for official test work, Mr. Arbogast said: "We do not plan to use our machine in official testing as it is seldom that we test more than three at a time. We don't want to go to the work of starting the machine and washing it out for such a few cows. Milking four times a day, too, we would disturb the other cows unnecessarily at least twice a day. We have nothing against the machine for official test work, outside of the labor it would involve for the few animals in the test. We can get as much milk with the machine as the average milker would get by hand."

The Arbogast Bros. use a three-unit machine. The power is supplied by a hydro-electric motor stationed right in the stable. One of their neighbors runs a four-unit machine with a one H.P. gasoline engine. The washing, done by the hired girl, is pronounced as less trouble than washing the cream separator. Altogether these breeders are fully satisfied with the operations of the mechanical milker in their splendid herd of pure-bred Holstein cattle.



SEEING the Difference BETWEEN THE DE LAVAL AND OTHER Cream Separators

IT DOESN'T TAKE AN EXPERT knowledge of mechanics or a long waiting list to tell the difference between the De Laval and other cream separators.

ON THE CONTRARY, WITH A 1915 De Laval machine placed beside any other separator the difference is apparent at first sight to the man who never saw a separator before.

IF HE WILL THEN TAKE FIVE minutes to compare the separating bowl construction; the size, material and finish of the working parts, particularly those subject to wear and requiring to be occasionally taken apart and put together; the manner of oiling, and everything which enters into the design and construction of a separator as a simple durable machine, he will still further see the difference.

IF HE WILL GO A STEP FARTHER and turn the cranks of the two machines side by side for half an hour, particularly running milk or water through the bowl, he will see still more difference.

AND IF HE WILL TAKE THE TWO machines home as every De Laval agent will be glad to have him do, and run them side by side in practical use, the De Laval one day and the other machine the next, for a couple of weeks, he will see still greater difference in realizing that enters into cream separator practicability and usefulness.

THE MAN WHO TAKES EVEN THE first step indicated in seeing for himself the difference between the De Laval and other cream separators doesn't put his money into any other machine one time in a thousand.

THE COMPARATIVELY FEW buyers of other separators are those who merely read printed matter claims or listen to the argument of some dealer working for a commission, and who do not think worth while to see the difference for themselves.

THE WISE BUYER OF A CREAM separator to-day does see this difference when buying his first separator, while the unwise or careless one usually finds it worth while to see what he comes to buy a second cream separator a year or two later.

EVERY DE LAVAL AGENT considers it a privilege to show the difference between the De Laval and other separators, and to offer every opportunity to the opportunity to try out and prove the difference to his own satisfaction, if on first examination he feels the slightest doubt about it.

THAT'S THE REASON WHY FOUR buyers out of five are buying De Laval Cream Separators in 1915, and why the use of De Laval machines will, before long, be nearly as universal on the farm as the wheel on the creamery and milk plant use of power or factory separators.

DE LAVAL DAIRY SUPPLY CO., Ltd.

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

MONTREAL PETERBORO WINNIPEG VANCOUVER
50,000 BRANCHES AND LOCAL AGENCIES, THE WORLD OVER

HAWK BICYCLES

An up-to-date High Grade Bicycle fitted with *Kolor Chain*, *Wolfeval* *Spokes*, *Hubb*, *Detachable Tires*, high grade equipment, including *Studebaker* *Spare Tyre*, *Pump*, and *Tools* \$22.50 *plus* *FREE 1915 Catalogue*, 10 pages of *Bicycles*, *Swiders*, and *Motor* *Materials*. You can buy your supplies from us at Wholesale Prices.

T. W. BOYD & SON,
27 Notre Dame St., West, Montreal.

CRUMB'S IMPROVED WARPING STANCHION

Henry H. Albertson, Portland, Ore., the contractor of the new Stanchion adds greatly while at the same time of an inexpensive yet satisfactory cover stable to Send for specifications of Inexpensive yet satisfactory cover stable to Send for specifications of Inexpensive yet satisfactory cover stable to Send for specifications of Inexpensive yet satisfactory cover stable to

WALLACE B. CRUMB, 26, Pennsylvania Ave., U.S.A.
Canadian orders filled from Canadian factory.
All correspondence should be addressed to this house office. Plans in English if you prefer booklet in French or English.

A BUILDING By FREIGHT

Want a building is a hurry—a fire proof—lightning proof building—for implements, carriage shed, granary? Tell us the style you want and we will quote you on just the building you need. Always ready to ship.

READY-BUILT Buildings

Manufactured by
The Metal Shingle & Siding Co., Limited - PRESTON

OUR FARM HOMES



ONLY he who lives a life of his own can help the lives of other men.—Phillip Brooks.

When to Lock the Stable

By HOMER CROY

Copyrighted 1914, Bobbs-Merrill Company

(Continued from last week)

HE would reach into his hip pocket and with his fingers gripped around the flask gurgled down its red contents. Then he would send the bottle whirling over his shoulder, the less slowing out until the flask buried itself in the grass. After he had gone the boys would gather around the bottle, looking at it silently, walking around it until some bold one touched it with his toe when they would all draw back as though it was a striking snake.

Clem had watched it all for years, and he knew that just as sure as they had a camp-meeting there was certain to be some old man there with chin beard and no teeth who leaned forward on his cane and chewed. Clem never knew what he chewed, but after hour his chin beard would bob up an down, silently, unceasingly. Clem would try to keep his eye off the chewing chin by fastening it on the gilt topped Bible on the platform but for a few minutes it would swing back to the bobbing beard.

Even on the last night when the Reverend Sadnow was climbing to his climax, when he was stalking back and forth across the platform, plowing his fingers through his long hair, describing the terrors of the fire everlasting, with snakes coming up and snapping their fangs into you—yes, you—time after time, and balls of fire rolling up and down you, parting and becoming two every time you tried to claw one off, Clem's eyes would be drawn irresistibly to the old man leaning forward with both hands clasped over the top of his cane, his whiskers silently falling and rising.

Camp-meeting week was the joy of Hulda's life. In the mornings she taught Sunday school and passed books for the singing. In the evening she pleaded with sinners. She would rise in her seat, cast her eye back over the crowd until she saw some unsaved creature and then bear down on him. Whenever she arose there was a sudden stirring among the sinners at the far end of the tent and often hasty exits.

When Salvation Night came—the last sermon—she was so wrought up that she was ready to save the whole world. As the Reverend Sadnow leaned over and pounded the Bible, going into a detailed description of the lake of fire and the picket of fangs, Hulda swung her black-bordered palm leaf fan faster and faster. When he stepped down off the platform, and raised his arms over his head inviting sinners to come up and save themselves from a sulphurous eternity, Hulda arose and surveyed the audience, seeking for a soul without the pale.

Her eyes wandered until they fastened themselves on a figure propped limply against a tent pole. Lifting her skirt with the thumb and forefinger of a black cotton-gloved hand, she stepped over the pine plank that supported the seats and went rustling down the aisle. Those on the ends of the seats held their breath and huddled over till she passed, turning their faces with advertised relief as she swept by the danger zone.

"Are you ready to surrender your heart, Brother Oddy?" she asked in a voice to be heard over the whole auditorium.

"Who, me?" he asked thickly.

"Yes, Brother Oddy. Do you want



A Beautiful Hedge of Bloom at Macdonald College, Quebec.

This illustration demonstrates the beautiful effects possible through flowering shrubs such as the Spirea Van Louise, seen herewith. A few dollars well expended on shrubs will produce even more striking the average farm home.

—Photo by an editor of Farm and Dairy.

to spend an eternity in a lake of living fire?"

His eyes ran across the seats and climbed up into the face of an old crony. If he gave in he would be laughed at; if he must not be laughed at, "I ain't afraid," he answered defiantly. "I'm a reg'lar muskrat."

His eyes leaped back to the crony and came away satisfied. Hulda laid her hand on his arm, her voice rising. "Rick Oddy, if there's anybody in all Curryville that needs the cleansing power of salvation it's you. Instead of me coming after you, you ought to be coming down the aisle on your knees praying for forgiveness." She gave his arm a tug and Rick wavered as if about to pitch forward. "You're worse than a muskrat—you're—"

Every eye in the tent was fastened on the two. The Reverend Sadnow had slowly lowered his arms and had come part way down the aisle as if to interfere, and Judge Woodbridge had half risen. Suddenly Clem appeared at her side.

"Come on away, Hulda," he whispered. "He's drunk. He don't know what he's saying."

Hulda's body pivoted at her waist. "Clem! Pointer!" she began, the thin trembling thread of her voice rising higher, "don't you interfere with the work of the Lord. Just because you don't belong you needn't be trying to keep your fellowman from being saved."

"Amen, amen, Sister Pointer," called out the Reverend Sadnow.

"But, Hulda, he ain't himself—" "Go preach ye the gospel to every living creature. Ain't he living? Go back to your seat, Clem Pointer. I know what I'm doing." She put her hand on his shoulder and gave him a shove. Humbled, the eyes of the entire audience on him, Clem hesitated a moment, then stumbled back to his seat. Every nerve in his body was throbbing; he kept his eyes fixed on the ground. Only a few days before he had thought himself a hero and now he was humiliated before all Curryville.

Hulda gave Rick's sleeve a tug and started down the aisle, chanting, "Salvation's free, salvation's free, hallelujah!"

"Rick held back, his heels planted. 'I don't care what you're givin' away—I don't want any of it.'"

As immediate safety was more to be sought than paring glory, Rick darted outside.

Hulda, with her chin held high, walked back to her seat, raised her skirt between black thumb and finger, and picked up her mourning palm leaf.

"Glory be to hallelujah!" shouted the Reverend Sadnow, slapping his hands. "Everybody stand and sing while the repentant sinners seek the altar!"

The first out of the choir to welcome the reborn into their new life

had prayed for you time and time again and set you a good example; you don't seem to improve any." Her hand went under the table and came up with the leather Bible, worn and frayed at the corners. Hulda closed her eyes and bent the cover. She was asking for higher guidance in finding a chapter that would impress Clem with his sins.

"I hope you will take this chapter to heart and pray over it." You stirred me up so to-night that I know I will not be able to sleep. How will I look in the morning when Brother Sadnow comes in? I want you to go down to the drug store and get me some sleeping powder. The yellow one ain't such a taste. Think of this chapter every step of the way. In the morning Brother Sadnow will pray with you."

As Clem laid his shoes Hulda's eyes watched him sternly; they followed him to his hat accusingly.

The door out of the parallelogram of light and Clem felt his way down the steps.

A cricket under a brick was droning away as if so sleepy that it couldn't keep it up much longer; a leaf patted the roof; away at the other end of town a dog mourned a thousand lost ones; some sleeping powder. The yellow one ain't such a taste. Think of this chapter every step of the way. In the morning Brother Sadnow will pray with you."

Then Clem turned toward the river.

CHAPTER V.

NOT EVEN A NOTE.

Clem kept in the middle of the street where footsteps were lightest, down past the planing mill, and around Dick's shed. The name was that Rick Oddy so often followed as his grim journeys. The Flemings dog charged him, plowing its feet into the road in order not to bump against him. "Here, King—what's the matter. Don't you come near me." King quieted down at the familiar voice and in a moment was licking Clem's hand.

He paused. He was before the old Kemp house. The carpenters and plasterers had done their work and was closed, and cold in the moonlight.

"Not even a note," he mumbled bitterly, then hurried toward the river.

For several minutes Clem stood in contemplation, when the flutter of a restless night-hawk brought him back to himself. Swinging over the wire fence, he strode to a spot where the sand and loam mixed to an ashy gray, and pulled out the contents of a pocket to store it open, then ripped the collar. Back and forth he stepped—tramping up the ground. He threw off his hat and tramped it into the dirt with his heel. He dug at his suspender and threw the loose piece to one side. He started back and at the fence stopped to survey his work. No one could doubt that a final struggle had taken place on the slick bank.

As he was getting over the fence his foot slipped and down his hand came on the wire. A ragged gash lay white as an instant, then filled with red. He mumbled thick words and was on the point of turning back to the river to bathe the wound when he paused. Looking around he gathered up a heavy stick, clasped it with his bleeding hand and pulling it tight with his thumb-nail. Then he flung the stick into the woods. Stooping he held the wounded finger in the stream a moment and swung back over the fence.

(Continued next week)

The Upward Look

Jeremiah

THE thirteenth year of Josiah's reign, Jeremiah received the call for his life work. It was a simple, yet, God-given one, in which he was in no uncertainty, as to the danger and difficulty of the mission before

him. The call was followed by two visions,



"The Old Oak Bucket."

As hallowed memories cling around it, it is at best it was a poor makeshift for the modern farm water system of today. No sentiment? Oh, yes. Also an appreciation of modern conveniences.

which the simple and the common revealed God's purpose. The tree was a blossoming almond tree, by which he learned that though God's purposes might, in seemingly inconceivable ways, be delayed, yet they would surely be fulfilled.

The second was a seething caldron boiling upon a fire. In this was predicted political trouble and the Median invasion, which should be a judgment upon Judah.

For a long time this was unfulfilled, and it seemed as if God had been mistaken, as the Scythian hordes had passed through Palestine on their way to Egypt, without inflicting injury on Judah.

As one writer in the Home Reading Magazine vividly puts it: "Jeremiah's was a tragedy. He loved his people, he was betrayed and hated by them. He was called upon by God to claim their doom, and every time danger seemed to pass. It looked as if God had deserted him. He was being led by his mission into a turbulent life, and a turbulent life was to his taste. He longed for the quiet life of home, but it was denied him. He had a warm and affectionate heart, 'exquisitely fitted for love,' yet wife and children were not his. He perceived the joy of married life; a wedding is to him a real human happiness (xvi, 2), but was not a happiness in which he participated. He was the mouthpiece of the Divine indignation, and with the words of doom upon his lips, how could he take part in the joys of life? Once he expostulated with God: 'Therefore do not the way of the wicked open?' and the reply brought him no comfort: 'If thou hast run with the footmen they have wearied thee, then how wilt thou contend with horses?' No, lower, but greater, hardships still laid upon the prophet, not smaller, larger tasks."—I. H. N.

OUR HOME CLUB

"Homely" Problems Again

UP to the present, "Perplexed Sister's" letter on the hired man's room has not been receiving either commendation or criticism from any of her sisters. At our meeting this week, however, "Aunt Greta," who makes her first how before Home Club members, airs her views on the subject in hand. We are glad to hear from "Aunt Greta" on this question and hope she will come again.

We have several other splendid letters on hand, but lack of space prevents their appearance this week. Watch for them next week.

That "Hired Man" Problem
Again**

HOW many Home Club readers have been tempted to reply to that letter by "Perplexed Sister" on the hired man's room? I have been watching this corner with interest from week to week to see what some of my sisters would have to say on the subject, but so far have failed to see any. "The Country Philosopher" dealt with the subject in a splendid manner and the ideas of "A Satisfied Hired Man" were also interesting, but I would like to hear the experiences of some of the fairer members of the Club also.

I, too, like "Perplexed Sister," have had considerable experience with hired men in the home. While a number have proven far from satisfactory, I have plenty nearly come to the conclusion that to a large extent, we who employ these men are ready to blame for their lack of tidiness and respect for themselves. Almost any sane person will respond to kindness and it seems to me that one big reason why hired men are so objectionable around the home, is because they are treated more like machines than human beings.

One thing is sure; we are not trying to improve a man's habits or his disposition either by putting him in the parlor or in a shabby back bedroom. With the parlor or back bedroom, we naturally look for shabby furnishings, such as a straw mattress and worn out springs, an old rag carpet or none at all, poor light, in fact an utter lack of conveniences. If we believe in the influence of environment, and surely we all do, how can we possibly expect such surroundings as these to raise the standards of any man.

I am not my hired man's room furnished attractively but serviceably. I have a dresser, washstand and table in the room covered with white oilcloth and easily kept clean. The floor is covered with linoleum and several small mats. Plain muslin curtains are at the window and two or three pleasing pictures hang on the walls. (Not gaudy, out-of-date calendars, as I have seen in some rooms.) Good springs and mattress are on the bed, for we cannot expect any man to do his work efficiently if he does not rest properly. This room is heated comfortably in winter, and is on the level, for we cannot expect a notwithstanding the opinion of "A Satisfied Hired Man." I consider it a decided improvement on the usual plan of having the hired man spend his evenings beside the kitchen stove.

The hired man question is surely a problem in more ways than one, but it is my opinion that even if he is not very careful or tidy, a decent room will not make him any worse and one has the satisfactory feeling of knowledge that it is fairly easy to keep clean.

I don't suppose all Home Club members will agree with my views on this subject, but I am open for criticism.—"Aunt Greta."

MADE IN CANADA

GILLET'S LYE

CLEANS AND DISINFECTS

THIS LYE IS ABSOLUTELY PURE. IT IS DIFFERENT FROM THE IMPURE AND HIGHLY ADULTERATED LYES NOW SOLD.

Chiclets

REALLY DELICIOUS!

THE DAINTY MINT-COVERED CANDY-COATED CHEWING GUM

Make a Corner Cosy

Collect the Cushion Cover Coupons with every Chiclet Package

MADE IN CANADA



Write it on the film—at the time.

Make every negative more valuable by permanently recording, at the time of exposure, the all important date and title. It's a simple and an almost instantaneous process with an

Autographic Kodak

Whatever is worth while in hand camera photography is found in the Kodak. So simple that the amateur can make good pictures from the very start, using dependable, non-breakable Kodak films with which the camera loads in daylight. The cameras themselves are accurate and reliable in every detail, the lenses are of the highest grade and the shutters work with a precision that is a mechanical delight. Kodak films may be developed without a dark-room or may be mailed to your finisher—the Kodak printing process are simple in the extreme. Indeed Kodak has come to mean "photography with the bother left out!" and it's less expensive than you think.

The latest Kodak feature is the Autographic idea. A little door in the back is opened and you write on the red paper of the Autographic Kodak cartridge any data that you like—date or the title of the picture, or perhaps you photograph a friend and then he writes his name on the red paper. Or you can write down the details about the exposure for future guidance—the condition of light, the shutter speed and the stop opening used. In photographing the children you write down their age at the time the picture was made. In using the Kodak in a business way, there are always details of the utmost importance that can be jotted down there, will add to the future value of the photographic record. When the date or title or whatever it may be that is written on the red paper, is exposed for a second or so to the light, the door is closed again and upon development such writing is found to be permanently imprinted on the film—occupying the intervening space between negatives.

Whether photography interests you from the business side, or for the home and travel pictures or from the standpoint of the pure pleasure of picture taking—the camera becomes doubly useful, doubly fascinating if it has the Autographic feature. There's no extra charge for Autographic film and Autographic Kodaks are sold from \$7.00 up.

Ask your dealer or write us for "Kodak on the Farm," a beautifully illustrated booklet that you will enjoy. There is no charge.

CANADIAN KODAK CO., Limited, 588 King Street W., TORONTO

When writing to advertisers on any page their advertisement in Farm and Dairy.

AMUSEMENTS

Conducted by MARION DALLAS

Patriotic Games!

A PATRIOTIC evening is sure, just at this time, to prove an instructive and novel way of celebrating the birthday of our Dominion. While it is instructive, the instruction is so sugar-coated with fun as to make it enjoyable. In playing these games we realize that patriotism is the same the world over, and means just as much to an Italian neighbor as it does to a Briton or to a Canadian, and wife we are proud of Canada, they are equally proud of their flag and country. So in our celebration every flag has a part.

Game of Nations

In preparing for these games, a great many flags are needed. There should be two of each country; one for the guests to wear and one for the games. The list may include England, Ireland, Scotland, France, Belgium, Spain, Italy, Switzerland, Russia, Greece, Japan, China, Holland, Norway, Sweden, United States, Canada, and many others. These flags may be purchased at any of the departmental stores for a few cents, or they may be copied from the dictionary and put on cardboard and colored with crayons or water colors.

When all the guests arrive, have the flags in a row on a table. Give each guest a card and pencil, and tell them to write down the country each flag represents. The one guessing the highest number is appointed the leader of the next game.

Missing Nations

For this game all but the leader leave the room. The leader removes one flag, then he gives the signal for them to return. The one who misses his flag is warned not to call out loud, while the rest of the party are supposed to guess which flag is missing.

Treaties

The leader says, "I think there should be a treaty between Russia and Italy." Upon hearing this, Russia and Italy hold up their flags and attempt to exchange their seats. The

leader tries to secure one of the vacant places. If he does, the country which is left out must be the leader.

National Airs

Nearly every country has a national air. Let someone sit at the piano King," then the person holding the flag of Britain will stand up, and so on. If, for instance, the player strikes up the "Marseillaise," then the one with the flag of France must stand up or pay a forfeit.

Historic Pictures

To combine the entertainment, provide a stiff piece of cardboard and pencils, and ask each guest to draw a picture representing some event in the history of the country which their flag stands for. Allow ten minutes for the drawing. At the bottom of the sheet write the title of the picture, fold it down, and then pass the drawing, and let each one guess what the picture is supposed to represent.

For the Newcomer

"Spring is the moving time in the country. Probably in every rural community there will be some new families," writes "Sister Jess" recently in the Home Club, and she thinks the strangers will be lonely. If they are human they will be lonely, and time to make them feel at home in your neighborhood is immediately after they move into their new home. Don't wait for two or three months. A little kindness shown at first is worth twice as much shown later. A pleasant way to entertain the stranger would be to give a "Real Estate Party." Send out the invitations in the shape of miniature real estate cards or notices.

WANTED.—Parties to investigate a number of offers for charming homes in the suburbs. Descriptions and photos on exhibition at eight o'clock, — evening.

When the guests arrive, give each one a description of some estate for sale. To help the imagination, have on hand a few advertisements. Good sized squares of cardboard and some paste may be given each guest, along some illustrated magazines, with scissors for cutting out. On the squares each guest is to illustrate the description given by the hostess. This is done by pasting on pictures and trees, stables, and so on, until the home is complete. This game may be played progressively, more than one house being illustrated by one person. When all the houses are finished, a vote may be taken as to the most effective description. The prize might be a sheet of music.



A Rifle or a Camera.

Alice Annette Larkin

IT was very still in the woods just beyond the brook. Ned Baxter, busy cleaning his air-ride under the shade of an old walnut tree, supposed that he was the only boy within half a mile. Suddenly he spied the bird which he had been watching, and he hastily raised his rifle.

But he did not shoot. From the clump of huckleberry bushes close by came a sharp, ringing command:



Mother's "Little Gardener" at Work.

"Down with that gun, Ned Baxter! Don't be a murderer and a coward." And a boy, slightly larger than Ned, a camera in one hand and a lunch-box in the other, emerged from the bush.

From sheer surprise Ned Baxter lowered his rifle to the ground. "Look here, Dick Rodgers," he demanded, "what are you sneaking around here and spoiling all a fellow's fun for? I'd have had that chap if it hadn't been for you."

"Oh, don't get mad, Ned; I just couldn't help butting in. Look here a minute and maybe you'll see why." And he proceeded to take from his pocket a small package. "How's that for game?" he asked, as he picked out first one picture and then another. Ned's eyes opened wide in astonish-

ment. "Where did you get 'em?" asked, as he eagerly examined one. "You didn't take those with that picture-machine of yours?" "Yes, I did, every one of them, that's not all. I've sold some of the best ones to Professor Barnes to illustrate some bird stories he's writing for the papers."

"Say, those quail pictures are just. And look at that old fellow teaching the young ones one by one! There's a whole nestful of 'em. Why, see you, that's a real bird school! I don't see how you got 'em. Say, Dick, when did you get that one of the quail with the long wing?—not last Monday?"

"Yes, that was just when I was lying on the ground and had home and fixed its wing with fast help. Somebody's rifle had done mean, cruel deed."

Ned Baxter looked down at the ground. He remembered something that happened last Monday. "Dick," he asked rather abruptly, "how do you ever do it?" "Just by trying, that's all. I have to watch birds and sort of acquainted with them first; they don't have much trouble and plenty well. I'm going home and putting work. Uncle Jack said he'd pay for splitting his wood. Then I have a camera, too. I guess you had more fun than I have, and I'm ashamed of myself. I'll never be at another bird if I live to be as Methuselah. That old rifle will where 'twon't be used again."

"You might sell it, Ned. Money would help toward your camera."

"No, sir, not if I know it. So body else would be killing the birds."

"That's right. Come on home do your work, then let's get on bird book. It came yesterday morning."

"Sure I will. I'm mighty glad it happened along just when you thought I was mad at first. See Jack says that a trouble and worry free and I guess he's right."

The Time to be Pleasant

"MOTHER'S cross!" said Maggie, coming out into the kitchen with a pout on her lips.

Her aunt was busy ironing, but looked up and answered Maggie. "Then it is the very time for me to be pleasant and helpful. You was awake a good deal in the evening with the poor baby."

Maggie made no reply. She ran on her hat, and walked off into the garden. But a new idea was in her.

"The very time to be helpful and pleasant is when other people cross. Sure enough," thought "that would be the time when you would do the most good."

"I remember when I was a child, I was so nervous that when I spoke to me, I could hardly bring my cross; and mother was so angry or out of patience, but just as gentle with me! I could pay it back now, and I will!" And she sprang up from the floor where she had thrown herself, turned a face full of cheerful emotion toward the room where her mother sat soothing and tending the little teething baby.

His Acquaintance with C

"WHERE you live in Cork?" asked the Irishman. "No," replied his friend, "but I've seen a lot of drawings."

Electric

THE extension of lines will be to rural areas. The Dairies of the Waterloo Co. of hydro power. Only one side portrayed, and the other side of her husband. The Hallman is giving the electric gives the room of our "There are no, not even in that we are controlling the hall. We can switch down to come down light. The controller before we go. "This is a anticipated, realizing the little difficulty place where for a few feet and these a tube, which for of the wall.

Electric

Mrs. Hallman to the kitchen driven washing. "It just cost for power to wiring." who takes all get in these does his wife the equipment to run them, them from the. Once the washed, written in with there is an completes the Hallman. The household add an opinion electric energy take first place household power, will be best and it was perhaps more fore it will be

Few products in household use to-day have bridged the gap from the primitive things of sixty years ago as has Seaboard Sugar

Canada's first refined sugar. "Ye Old Sugar Loaf" of 1854; was REDPATH's so was the first Canadian granulated sugar, in 1880, and the first Sugar Cartons in 1912.

The leader in every advance. Seaboard Sugar stands to-day first in the estimation of tens of thousands of Canadian families. 131

Ask for "REDPATH" in Individual Packages. 2 and 5 lb. Cartons. 10, 50 and 100 lb. Bags.

CANADA SUGAR REFINING CO., LIMITED, MONTREAL

Electricity in the Home

THE extension of hydro-electric lines will carry many blessings to rural homes. Elsewhere in this issue, an editor of Farm and Dairy tells of how seven farmers in Waterloo Co., Ont., are making use of hydro power in their farm work. Only one side of the question is there portrayed. The advantages are not limited to the farm end. Mrs. Irvin Hallman is equally enthusiastic with her husband in lauding the merits of electric energy. The lighting she gives the place of first importance.

"We have electric light in every room of our house," she told us. "There are no more lamps to clean; no, not even lanterns. You will notice that we have a three-way switch controlling the light in the upstairs hall. We can light the upstairs by a switch downstairs and we do not need to come down again to turn off the light. The cellar, too, can be lighted before we go down.

"This is an old log house and we anticipated some difficulty in concealing the electric wires. We had little difficulty, however, and the only place where the wiring is exposed is for a few feet in the winter kitchen, and these wires we have concealed in a tube, which when painted the color of the wall will hardly be visible."

Electric Wash Days

Mrs. Hallman then conducted us to the kitchen to see her electrically driven washing machine and wringer. "It just costs one-half cent an hour for power to do the washing and wringing," announced Mr. Hallman who takes almost as great an interest in these inside conveniences as does his wife. "The initial cost of the equipment, including the motor to run them, was \$60. We purchased them from the Hydro Commission." "Once the clothes are satisfactorily washed, wrung and dried, they are ironed with an electric iron. Finally, there is an electric toaster, which completes the electric equipment in the Hallman home.

The Household Editor would like to add an opinion of her own. Where electric energy is available it must take first place for both lighting and household power. Hydro lines, however, will be extended but slowly at best and it will be many, many years, perhaps more than a generation, before it will be available to more than

a small proportion of Ontario farm homes. In giving this description of the electric conveniences in the Hallman home, we would not like to deter any from installing other lighting systems, such for instance as acetylene or gasoline, or a small engine for household work, in the hope that hydro will come day be available. Other lighting and power systems are excellent and in many cases cheaper than the electric lighting.

Running Water at Little Cost

Mr. P. J. McLeod, Bruce Co., Ont.

I BELIEVE that we have the most inexpensive system of running water in our home that could be devised. The entire outlay did not amount to more than five or six dollars, but already it has saved me in the last few years hundreds of dollars worth of work.

The rough diagram that I am enclosing will explain our system better than words. Two large hogheads, the kind with a capacity equal to three or four four barrels, are placed on the rafters of the shed behind the kitchen. The water from the cave troughs of the house is directed into these hogheads. The hogheads are connected by a pipe at the bottom, and from one of them a three-quarter-inch pipe runs through the wall of the house down to a tap in the sink.

Such is the simple system that we have been using. We are now going to improve it. We are putting in a cement cistern that will take care of the overflow water and give us a sufficient supply to carry through the dry spells. A hand force pump is being installed that will enable us to pump through the cistern to the supply tank. We intend to connect it to the stove with a hot water boiler and install a bathroom on the first floor. This represents some expenditure, but for a starter the simple system that we have been using is within the reach of every farmer. All it represents is a day's work.

A Movable Table

M. M. R., Peterboro Co., Ont.

DINNER wagons are ever growing in popularity, and some very handsome ones are now on the market. For those who can afford them, they are a valuable addition to the dining-room equipment. All this, however, do not feel that we can stand the expense of such a convenience. For those who, like myself, have to practice economy, I pass along this suggestion for a movable table, which I recently read and which would take the place of a dinner wagon very nicely.

Take a small table, oblong is best, say two feet by three feet, have it a little higher than the dining table, and with a shelf half way down. Stand it on castors and cover the top with zinc. It is a good plan, too, to have a small railing all around. At meal time this table can be spread with a white cloth and on it placed all extra dishes needed at the meal and the dessert or fruit. This is placed beside the table so one can reach the things without getting up.

After dinner the white cloth is removed, the dirty dishes piled upon it and the table wheeled to the kitchen and placed beside the sink. When the dishes are washed they are placed on the table again, wheeled to the dining-room, and if desired, the table may be reset for the next meal. Think of the number of steps saved by such a device, and it serves the purpose just as well as a highly polished and expensively constructed dinner wagon.



COOK IN A COOL KITCHEN

DON'T sweater over a hot range this summer. The NEW PERFECTION Oil Cookstove keeps your kitchen cool and clean and does away with all the ash-pan, coal-hod drudgery of the coal range. THE NEW PERFECTION lights like gas, regulates like gas, and cooks like gas. It is gas stove comfort with kerosene oil. NEW PERFECTIONS are sold in 1, 2, 3 and 4 burner sizes by dealers everywhere. If your dealer cannot supply you, write us direct.

ROYALTY OIL GIVES BEST RESULTS



"NOW SERVING 2,000,000 HOMES"

THE IMPERIAL OIL COMPANY Limited

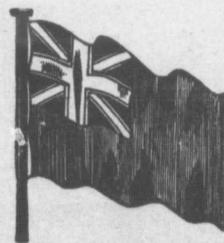


BRANCHES IN ALL CITIES



Made in

Canada



**Free
Flags**

Boys and Girls

Now, that so many of Canada's big boys are away fighting for our flag and country, you should

Keep The Old Flag Flying

Have you got one for your school or home? If not, we can supply you with one FREE. We have some magnificent UNION JACKS, 3 feet wide and six feet long, which we are giving for

Five New Subscribers to Farm and Dairy

at one dollar each. Remember, these flags are of the very best quality. Each has a rope attached, all ready to be fastened to the rope on the pole.

If you want one for your home and have not got a flag pole, just think how nice the grand old Union Jack looks hung on the wall. Here is a chance for you to get a real good flag of your own. Just see a few of the neighbors or call them up on the telephone, get five of them to subscribe to FARM AND DAIRY and the flag is yours.

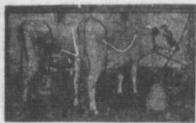
Write to-day for receipt forms, subscription blanks and sample copies.

Circulation Department

Farm and Dairy, Peterboro, Ont.

Mrs. Hallman and Her Electrically Driven Washer.

HINMAN
The Universal Milker



MADE IN CANADA
IS BEING USED IN
OFFICE! Test Work, both SEVEN DAY
and YEARLY PERFORMANCE
in many parts of Ontario with Grand Re-
sults
Price \$50.00 per Unit
H. F. BAILEY & SON
Sole Manufacturers for Canada
Dept. D GAIT ONT. CANADA

CREAM
We Pay Express and Furnish Cans, Profit-
able Prices Promptly Paid. Write us.
BELLEVIEW CREAMERY LTD.
BELLEVIEW, ONT.

WANTED
Our prices have shown a steady advance
for Good Quality
CREAM
We are prepared to meet ANY com-
petition. You should write us.
Toronto Creamery Co., Ltd.
Church St., TORONTO, Ont.

**EGGS, BUTTER
LIVE POULTRY**
Bill your shipments to us by freight. Ad-
vise us by postal and we will attend to the
rest promptly.
Egg Cases and Poultry Coops supplied
free.
The **DAVIES** Co.
Wm. Ltd.
Established 1854 **TORONTO, ONT.**



**YOU WOULDN'T PUT AXLE
GREASE ON YOUR WAGON**
THAT would be ridiculous
—yet no more so than to
use ordinary farm oil on
your cream separator. This
delicate mechanism requires a
lubricant made especially for it.
You must use

**Standard Hand
Separator Oil**
if you want the bowl to run
smoothly and swiftly. It is
made especially for separators—
does not gum and is of just the
right body to reach the finely
adjusted bearings. Don't im-
pair the efficiency of your sepa-
rator by using any kind of lubri-
cant. Get Standard Hand Sepa-
rator Oil made for the purpose.
Dealers Everywhere
The
IMPERIAL OIL COMPANY
Limited
Made in Canada

PASTEURIZER FOR SALE
One 300-Gallon Wizard Cream Ripener
or Pasteurizer, copper-covered, in good
condition. Will sell at Bargain. Apply
Box No. 452, Farm and Dairy, Peterboro, Ont.



In the Dairy

Use Panshine to thoroughly clean and
shine all the cans, pails, shelves, etc.
Leaves everything sweet-smelling and
sanitary. Cleanliness pays—especially
in the dairy. Use



PANSHINE
It's a pure, white, clean powder—doesn't
scratch—can't harm the hands—odorless.
Sold in Large Sifter Top Tins **10c.** At all Grocers. P.S.

The Makers' Corner
Butter and Cheese Makers are in-
vited to send contributions to this
department, to ask questions on
matters relating to cheese making,
and to suggest subjects for discus-
sion.

**Efficient Means of Caring for
Milk**
M. E. Maybee, Northumberland Co.,
Ont.

WITH some who are fortunate
enough to have an unlimited
supply of pure cold water, the
keeping of milk to be delivered to
cheese factories and other places, is
an easy problem. With others not so
fortunate it is a serious consideration,
and there are a great many in the
latter class, especially during a period
of drouth, which usually accompan-
ies excessively hot weather.

When one visits the factories and
sees the many cans of milk that are
returned on the wagons, he is led to
wonder if this financial loss to the
patron is due to indifference, careles-
sness or to his opposition to possible
extra labor or expense in arranging

the danger of getting specks in the
milk when adding ice.
Last of all, we determined to try
the Barr system. We built a cement
tank in the ground just large enough
to accommodate two 40-gallon milk
cans. We lowered the cans of milk,
having the lids on, in this tank by
means of tackles, putting the ice
around the cans. We have found this
the ideal system requiring less labor,
less ice and cooling the milk down
much faster and the flavor of the milk
is first-class. We put the night's milk
in this tank every night.
The cost of construction is nil. One
barrel of cement, one yard gravel, a
few stones and a little sand about a
day's work for two men and the thing
is done. I would not recommend
building one tank any larger than to
hold two cans. If more capacity is
required build another tank.

It's up to the Patron
G. G. Pablow, Chief Dairy Instructor
for Eastern Ontario

IF we are to improve the quality of
our cheese and butter, that improve-
ment must come largely from a bet-
ter raw product. We cannot ask the
manufacturer to do more than to do
better, but we must get after those who



A Milkhouse Worth While on a Farm in Hastings Co. Ont.
The metal sided milkhouse illustrated herewith is on the farm of Mr. H. H. Hageman, Hastings Co., Ont. In the house are a well in which the milk may be cooled with block and tackle arrangement for raising and lowering the cans, a cement cooling tank to be used in the hottest weather when ice is needed to keep the milk in fine condition and a cream separator, run by a small two-horse power gasoline engine. The separator is of large capacity, separating 500 lbs. of milk an hour. Mr. Hageman is doing his share to keep the raw product right, whether he ships milk or cream.

for some effective and satisfactory
method of preservation.
Having been one of the unfortunate
ones regarding water supply, I have
resorted to many different schemes in
an effort to find the best one. Our
first method was to strain the Satur-
day night's and Sunday morning's
milk in shallow pans and set on the
cellar floor, which plan generally kept
the milk sweet, but entailed a great
amount of labor as well as exposing
the milk to undesirable flavors. Our
next plan was to strain the milk in
shoegun cans and lower in an under-
ground cistern, the cans being in the
water. This was less labor and equal-
ly effective, but attended by difficul-
ties as sometimes when water was low
we would neglect to turn the water
spouts out of the cistern and in case
of a heavy shower the result was a
watered milk and a milked water.

are failing to do well to do better.
We have had dairy instruction and
dairy literature distributed among
dairy farmers for a great many years,
yet after strenuous and constant work
we have the same deficiencies in our
product to report. How long will we
have to go on talking and preaching?
Is it by talking and preaching that
the remedy is to come?
Fifty per cent, perhaps more, of our
farmers are caring for their milk in
such a way that fancy butter sold
cheese may be made from their pro-
duct. Is it not time that these men
were making demands on their neigh-
bors who are not giving the one that
they should? If we are to realize
the greatest reward and hold our own
in the production of fancy cheese and
butter, we must make this demand on
the careless patron.

Ice in Cooling Cans
I next decided to try ice. Accord-
ingly I prepared a building and filled
it with ice the following winter. The
ice was used in cooling cans, placing
them in the cans of milk. This was
done not only on Saturday night and
Sunday morning, but every night
when the weather was warm. This we
found a very good plan, but very fre-
quently we were troubled with un-
desirable flavors and there was also

There is a big movement here now
to start a creamery, and the farmers
seem to feel that dairying must come
into general practice in this coun-
try. I have been able to get for Farm and
Dairy during the past two years any
have done something to start the
movement. I will always be pleased
to say a good word for Farm and
Dairy, and forward you any sub-
scriptions that I can.—R. C. Foster,
Nipissing Dist. Ont.

Newswy
Five-Mile
ton, thous-
were destroy-

Foultryman
ganizing an ex-
association at
regularly a
"Orchard Farm"
Lake for
fourth of proc-
newspaper ad-
D. E. Gella
much near Kel-
a potatoes. N-
eggs can beat
The new D
Farm at Summ-
ing this spring
irrigation facil-
will be set out
act. Exper-
begin in earnest
In British C
estimated, their
pure-bred dairy
of which are H
says, Ayrshire
the order name
other breeds r
main predomi-
Mainland, the
ter, and Jersey
Invercreeper
One of the
has been urg-
British Colum-
in New Zealand
use of which ar
sh. One reas-
butter has been
lated here is be-
graded and al-
collet quality.
One Kin
Percy Welch
Kanagan Lake
may poultry

and we at
engines is
surpassed
proved in
engine is



Newsy Notes from British Columbia

(By Our Own Correspondent)

N Five-Mile Valley, east of Princeton, thousands of acres of hay were destroyed by grasshoppers in 1914.

Poultrymen at Langley Fort are organizing an egg circle. The poultry association at Pentiction is now filling regularly a thirty-case egg contract. "Orchard in full bearing on Okanagan Lake for rent. Terms—One fourth of proceeds." This reads a newspaper advertisement.

D. E. Gellauy, who has a large ranch near Kelowna, has eighty acres of potatoes. Not many Canadian farmers can beat this.

The new Dominion Experimental Farm at Summerland is being equipped this spring with buildings and irrigation facilities. A few apple trees will be set out this year and hay will be cut. Experimental work will not begin in earnest until next year.

In British Columbia, it has been estimated, there are 1,600 head of pure-bred dairy cows, fifty per cent. of which are Holstein. Pure-bred Jerseys, Ayrshires, and Guernseys, in the order named, are the principal other breeds represented. The Holstein predominates on the Lower Mainland, the Ayrshire in the Interior, and Jerseys and Guernseys on Vancouver Island.

One of the Vancouver newspapers has been urging its readers to buy British Columbia butter in preference to New Zealand butter, large quantities of which are sold in Western Canada. One reason why New Zealand butter has been so successfully marketed here is because it is Government graded and almost invariably of excellent quality.

One Kind of Advertising
Percy Welch, a poultryman on Okanagan Lake, is a man from whom some poultry breeders could learn

lessons in advertising. Welch has a place of two acres or so extending from the Shuswap and Okanagan Railroad to the Lake. His principal pens are near the lake shore on a slope. Almost in his front yard, however, and in good view of the railroad he has a spic and span green-painted henhouse and a newly wired run, with white posts. A sign across the henhouse reads: "The Poplars Poultry Ranch, P. W. Welch, Prop., Eggs and Stock for Sale. Inspection Invited." In this pen, which, like his entire plant, is kept clean and wholesome, he has some of his best stock.

The Welch home is of modest size and its architecture is not ultra-modern; but it is always trim and attractive in new paint. Shade trees are about, and the lawn is well kept. The passengers on the S. and O. R. R., and their number is large, coming from all towns in the Okanagan Valley and from many places outside, see this well-managed poultry ranch and carry away the impression that it would be a good place to deal with. Welch is a progressive poultryman, and is president of the Vernon Poultry Association.

Advertising in agricultural periodicals is admitted by most breeders of poultry to be a necessary adjunct of their business. A good many of those who do advertise, however, neglect to keep things even decently ship-shape about their yards, and the visitor carries away anything but a favorable impression.

Increasing Production

British Columbia farmers start plowing and, later, seeding, days before their brethren in Ontario and the Maritime Provinces. Thus it happens that at this writing crop prospects for the present year assume a more or less tangible form. The

acreage plowed represents a phenomenal increase. In the Okanagan Valley it is estimated that 50 per cent. more land is in wheat and vegetables than last year. A correspondent at Chilliwack, an old resident, informs me the area in crop there is the greatest within his recollection. Granted favorable weather conditions in British Columbia this year, the crop of vegetables and cereals will be vastly in excess of any previous year, and every section of the province is participating in the increase.

Fruit prospects also indicate a record crop. Every year, of course, the number of bearing apple trees increases considerably. In the Okanagan, our greatest fruit district, the spring has been ideal. The Southern Okanagan expects a crop 33 1/2 per cent. above last year. The strawberry growers of Vancouver Island approach the bearing season with the vines in good shape. They estimate the probable production at 45,000 crates. The small-fruit growers at Mission, Maple Didge, and other places in the Fraser Valley are also preparing for the greatest year in their experience.

Price prospects are harder to gauge. With potatoes in this province, large crops almost invariably mean low prices. The large wheat crop will undoubtedly be profitable because of the war. The fruit growers have improved their cooperative facilities, and with a lighter crop predicted for the North-West States are optimistic, believing that returns will be greater than in 1913 and 1914.

Two market commissioners, J. Forsythe Smythe, with headquarters at Calgary, and R. C. Abbott, stationed at Vancouver, will prepare weekly market reports. They will give individual assistance to farmers when applied for.

Most farmers are having no trouble getting labor. In most localities \$25 a month and board secures an experienced man.



An Old Dutch Windmill.

This is a Dutch windmill, but it is not in Holland. The photo was taken near Kaiti, Illinois. Dutch immigrants found the prairie winds of the western states just as efficient power producers as the sea breezes of their native land, and mills of this type are frequently found in Dutch settlements in America.

I have just been reading "North of Boston," a book of rural dramatic poems by Robert Frost. Too many of our farm and nature pets are affected snobs, but Frost is not such. "Good fences make good neighbors," he says in the opening poem, "Mending Wall."

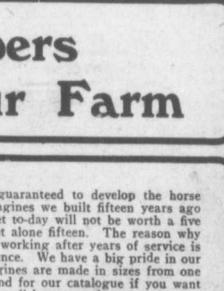
He tells of a housekeeper who went away and married another man; of a farm wife, with insanity in her blood, driven to ravings by drudgery; of an amateur botanist and what it meant when he lost the use of his feet; of the dreams which come after the handling of many apples in the fall. In dramatic interest "North of Boston" beats a novel. "It is real poetry by a real farmer."

"IDEAL" Helpers For Your Farm



Brantford "Ideal" Windmills

Backed by twenty-three years of good hard experience and honest dealing. Our windmills are to be found in every civilized country on earth. They have every good feature that experience and invention have provided. In 1903 the Royal Agricultural of England held a two months trial of windmills from which twenty-three competitive windmills from all over the world were entered. Our mill clearly out-distanced all others, having pumped 90 per cent. more water than its nearest competitor, without showing the least signs of wear. If you want a windmill that will last a lifetime and longer, buy an "Ideal." Send for our windmill catalogue.



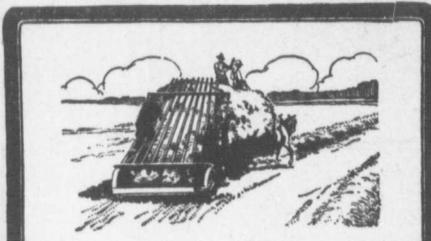
Brantford "Maple Leaf" Grain Grinders

We started making grinders over twenty years ago with the result that today we have on the market a grinder designed and developed in our own shop, containing a great many valuable features essential in a good machine, and which are to be found in our grinder alone. These features are strongly protected by patents. Every grinder is run and thoroughly inspected before it leaves our factory. It pays to chop at home. Get a "Maple Leaf," thirty-five thousand of which are in use to-day. Send for our grinder catalogue.

We also make full lines of Pumps, Tanks, Steel Saw Frames, Water Supply Goods, etc.

GOOLD, SHAPLEY & MUIR, LTD., BRANTFORD, Ont.

Branches at WINNIPEG, REGINA and CALGARY.



Good Oil Helps You "Make Hay"

PRAIRIE HARVESTER OIL

keeps your mower, hay-loader and other machines in perfect shape every day. It is heavy-bodied, yet free-running, and takes up the play and rattle of worn machinery as nothing else will.

Standard Gas Engine Oil, an absolutely reliable lubricant for all types of internal combustion engines - either gasoline or kerosene-burning.

Eldorado Castor Oil, a very heavy oil adapted for loose-fitting and worn-bearings.

Capital Cylinder Oil, manufactured especially for the lubrication of steam tractor and stationary steam engines.

These lubricants - each the best that can be manufactured for its particular purpose - carry the guarantee of the oldest oil-refining company in Canada.

Branch Stations Throughout the Dominion.

THE IMPERIAL OIL COMPANY Limited

Made In Canada



Lyndale Holsteins

Will contribute to Breeders' District Holstein Breeders' Congress next fall, May 27th, 28 and 29. A. E. O. and R. M. stock. Present offering 1 yearling bulls, sired King Pontiac, Arlis Canada, and out of high record cows. BROWN BROS. LYN. ONT.

There is vast difference between keeping Holsteins and just keeping cows. One Good Holstein Cow will do the work of two or three ordinary cows. You save in feed, housing, risk and labor. Holstein Cows milk longer, more per year, and more per life than any other breed. There's money for you in Holsteins. W. A. CLEMONS, Sec'y H.F. Association ST. GEORGE, ONT.

To the Holstein Breeders of Ontario

The Tavistock Breeders' Syndicate offer for service their great Tavistock Bred Bull, King Lyons Colantha, whose 14 nearest dams average 30.10 lbs. butter and 11 of the sires in his pedigree have sired 30-lb. daughters. Bred your best cow and get a bull to head your herd. Service fee \$25.00. For extended pedigree write H. BOLLERT R. NO. 1, TAVISTOCK, ONT.

ONE BULL FIT FOR SERVICE

His dam has not yet been tested. Her sister is Countess Carrie Mercedis 35.120 milk, 1 year. His sire's dam is Do Kol Mutual Countess, 35.600 lbs. milk as a 3-yr.-old, and whose dam sired R.O.V. 1st. promises to be a world's champion. For particulars write JAS. SWENEY, R.R. 8, PETERBORO, ONT.

WANTED
A few head of young female Holsteins to freshen this coming fall or winter. Also a few Heifer Calves. GEO. S. BRUSH - NOKOMIS, SASK.
LAKEVIEW STOCK FARMS, BRONTE
Breeders of High Class Holsteins, offer for sale some Choice Young Stock of both sexes. E. F. OSLER, Prop. Y. A. DAWSON, Mgr.

THE MAPLES HOLSTEIN HERD
All closely related to the B.O.P. 2-yr.-old champion heifer, Duchess Wayne Calanthy 2nd 35.774 lbs. milk and 96 lbs. butter - 23 lbs. as a 3-yr.-old - 3 bull calves fit for service offered at present - one a half brother to Duchess; one from a 20-lb. 3-yr.-old sister to Duchess and the third from a closely related 20-lb. cow. Could you ask for better bred ones? They are all splendid chaps. Write or come and look them over. WALBURN RIVERS R. R. 4, INGERSOLL, ONT.

HET LOO FARMS VAUDREUIL, QUE. HOLSTEINS

Let us quote you prices on Heifer Calves from 4 to 18 months old, also high bred good individual bull calves. Dams with records from 25 lbs. to 30 lbs. in 3 days. We are short of room and will price them low if taken soon. W. A. DE L. HARWOOD, Prop. GORDON M. MANHART, Mgr.

Some Additions to the Implement List

New Devices, Home-Made and Otherwise, for Plowing, Rolling and Seeding.

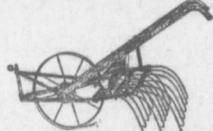
A New Mulcher and Seeder

ONE of the latest implements placed on the market is the mulcher and seeder shown in the accompanying illustration. By its manufacturers it is described as a mulcher, smothering harrow, surface cultivator, seed sower and weeder, all in one.

If the implement is as satisfactory as its manufacturers claim, one of the places where it will prove very useful is in seeding between rows of other

"While the cement roll is hardening the frame can be built. The frame and tongue are made of four by four inch material. The frame is mortised together at the corners and bolted. The tongue is mortised into the centre of the front of the frame and bolted and braced to each side with heavy iron braces. A four by four inch bolt 10 inches long is bolted to the top of each end of the frame in the centre. The bearing holes are bored between the blocks and the end pieces of the frame. The boxings may be habituated to make the roller pull easier.

"An old mower or disk seat is bolted to the tongue, and when doubling the trees and neckyoke are provided the machine is ready to be assembled and used. The drawing shows the location of the bolts, braces and irons and other parts. The cost of such a roller is \$3 or \$3. It weighs about 800 pounds, depending upon the density of the soil. It leaves the surface of the soil corrugated."



plants. Some farmers, for instance, make a practice of seeding clover in their corn fields after the last cultivation, this clover to be plowed under, such an implement as this new mulcher and seeder would make the hand seeding hitherto resorted to, unnecessary.

To preserve the soil much in the latter stages of corn growth, this implement may prove superior to the present one-horse cultivator now in use in that it is for surface tillage and would not harm the feeding rootlets of the corn.

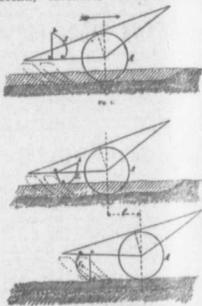
A Corrugated Land Roller

THE corrugated land roller is coming into favor. It pulverizes soil more efficiently than the ordinary flat roller, and where heavy winds are common in the spring, leaves the soil in a condition to resist erosion by this agency. In a recent issue of the Nebraska Farmer, Jno. W. Davis describes how he constructed a corrugated roller at very little expense. He writes as follows:

"A piece of eighteen-inch corrugated galvanized culvert six feet long is used for the form, and through this a one and one-half inch rod seven feet long may be passed. Close one end of the eighteen-inch pipe tightly with short boards and in the exact centre of this end bore a one and one-half inch hole for the axle to

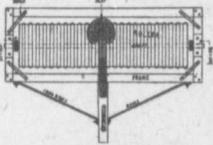
Automatic Lifter for Balance Plows

IN working with heavy balance plows lifting the shares out of the ground at the end of the furrow is often very laborious. In Wajac's plow, recently invented, the work is done



automatically. In figure 1, the balance plow is shown travelling in the direction of the arrow. To the land-side of the frame a sector-shaped piece "S" is attached by means of a horizontal axis "A", round which it can revolve. When the plow is proceeding, the sector "S" is kept in its position shown in figure 1, by the catch. On nearing the end of the furrow the plowman, without leaving his seat, releases the catch by pressing his foot on a pedal, and at the same time he steers the plow so as to bring the wheel "W" on to the unplowed land. The sector then falls into the position "S", figure 2, touching the unplowed land with the point "A"; the radius of the curve "A" is equal to the development of the curve "W", "A" causes the point "A" to rise as the machine advances, and this, combined with the rising of the wheel "A" on the land lifts all the shares out of the ground within a length "A", figure 3. In order to prevent the sector slipping or dragging, it is provided with strong protecting cleats.

When the plow is tilted for the return journey, the sector is lifted by hand into its original position, in which it is caught and fixed by the catch.



Details of Corrugated Roller.

go through. Next set the culvert upright upon its closed end, first boring a small hole six inches deep in the ground for the end of the axle to rest in. Then wire or brace the axle in the centre of the open end.

"It is now ready to be filled with concrete, which should be a good, strong mixture and well packed as the culvert is filled. When gravel is used, a good mixture is one part cement, three parts sand, and five parts gravel. If only sand is obtainable, use one part cement to three parts sand. When the culvert is filled, smooth it off flush with the end and allow it to set for fully two weeks. The culvert is not removed, for it helps to protect the cement.

MANAGER
By the U
of Agricultu
small farm t
P. Verkes,
to the fact
has been de
of farmers v
larger tract
or that is c
and that is
two to four
a bolt capa
any ordinary
turn, is a r
simple const
berkes.
"Most of
only one di
only one sp
wise, thus
gearing inc
greats. At
mit the hitch
now direct
draft of the
which it was
with a wide
wheels with
raining the
plowed land.
"The me
so important
point, howev
average farm
investment p
ditions will
of a tractor
is money eq
could be un
working life
about half t
dent that is
double its va
places no ot
a rule, howev

The Small Tractor in Farm Practice

An Optimistic View of its Possibilities

IN a recent issue of the "Farm Management Monthly," published by the United States Department of Agriculture, the practicability of a small farm tractor is discussed by A. P. Yerkes. Attention is first called to the fact that this type of tractor has been designed to meet the needs of farmers who could not operate the larger tractors economically. A tractor that is comparatively low in price and that is capable of pulling from two to four plow bottoms and with a belt capacity sufficient to operate any ordinary machines used on the farm, is a machine of comparatively simple construction, according to Mr. Yerkes.

"Most of them," he says, "have only one drive wheel, and usually only one speed forward and one reverse, thus eliminating considerable gearing, including the differential gears. At the same time they permit the hitching of a two-bottom gang plow directly behind the centre of draft of the machine, something which it was impossible to accomplish with a wide tractor having two drive wheels without causing side draft or running the tractor partly on the plowed land."

"The mechanical features are not so important from the farmer's viewpoint, however, as its low price. The average farm already has as large an investment per acre for power as conditions will justify, and the purchase of a tractor which would not displace its money equivalent in other power, would be unwise. As a tractor's working life in years is usually only about half that of a horse, it is evident that it should displace practically double its value in horses, if it displaces no other source of power. As a rule, however, the small tractor will

take the place of a stationary engine for operating the various farm machines, and the difference in the cost of such a stationary engine and a small tractor is slight; so it will

farm work, so as to utilize it to the greatest advantage. Like every machine, its value is increased by being worn out as rapidly as possible in profitable work, as the interest charges are thereby reduced, and depreciation, through rust, etc., reduced to a minimum. The work of the farm should, therefore, be planned so as



Where Seed Beds Are Prepared Without Horse Power.

This western scene illustrates the extent to which horse power may be replaced in farm work. Such replacement, however, is possible only on the extensive grain farms. As the majority of farmers can never be grain farmers and must necessarily farm farms of moderate size, Old Dobbin and his mates will always fill an important place in our agricultural economy.

not always have to displace horses to any great extent to justify its purchase.

"Judging by data already obtained in a study of the small low-priced farm tractor, it is safe to predict that it will soon command on the ground of economy, a permanent place on the average farm. The degree of success which will be attained with a tractor depends very largely on its operation, and the general management of the

tractor wherever practicable and to dispense with as many horses as possible. As the tractor will be capable of doing practically all the plowing on the average farm, the number of horses which must be kept will depend upon the amount of cultivation, etc., to be done, for which the tractor is not adapted. Where the tractor is used the croning system should be planned to reduce this kind of work to a minimum."

Now Owns Forge

A CERTAIN man, busy with a large field of oats that was ripening fast, broke his sickle bar and was compelled to stop work until he had repaired it. It was only a little break, but the owner of the grain had to drive to town, over seven miles away, to have it fixed.

When he reached town he found the blacksmith busy with a dozen other breaks of a similar nature,—though they were not all sickle bars,—and the repair was not made until early the next day. When the binder was started again, nearly 36 hours had intervened. As a result, before the grain had all been cut, much of it had crinkled. Not only was some of the grain lost, but the bundles were so "wooly" and matted together that well-standing shocks were out of the question. Fortunately there was little rain or there would have been danger of growing grain in the shock. The damage was sufficient as it was.

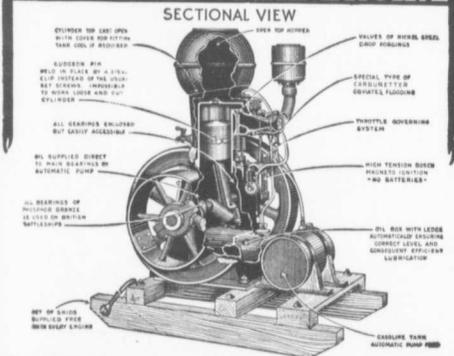
Taught By Experience

"John," said this man to his son one evening, "when the chores had been finished, 'I think it would be a good thing to put in one of those emergency forges in the machine shed. If we had owned one of those little \$6 forges we were talking about this spring, we could have fixed that sickle bar that broke, when we were cutting the oats, in about three hours. If that had been done the oats would have been cut in good shape. Not only that, but we wouldn't have had the trouble during hayning and corn cultivating time."

Now, a forge has been put in, and the little breaks in machinery that delayed work so much before, are fixed up in a few hours. The forge has been paid for many times over, and many of the neighbors are putting in forges. One of the leaks on that farm has been stopped.—Ray P. Speer, Minnesota Agricultural College.

LISTER FARM MACHINERY

LISTER GASOLINE ENGINE



NO BATTERIES! NO OIL HOLES! NO RABBIT!

OVER 10,000 IN USE

Built throughout in our Works in England. Used by the British, Canadian and French Governments, by H. M. King George, Premier Asquith, The Canadian Bank of Commerce, Etc., Etc.

R. A. LISTER & CO. Limited
WINNIPEG CALGARY QUEBEC

Melotte Cream Separators

Over a Million in Use—50,000 Sold in Canada.

Lister Lighting Systems

For Farm, Cottage, Hotels, Etc.

Lister Grain Grinders

Guaranteed greater capacity for size than any others.

Lister Silos

Made of No. 1 Selected Canadian Spruce.

Lister Milking Machines

Nearly 2,000 in use—never beaten in competition—combine suction with gentle pressure—the only safe way.

Lister Ideal Threshers

Operated by 5 to 12 Horse Power—make the Farmer independent of outside help.

Lister Farm Machinery

Is famed all over the world for its high quality.

Write for Catalogue and name of Local Agent to Dept. K.

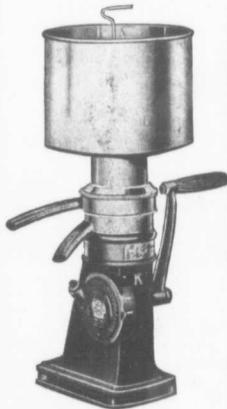
TORONTO
ST. JOHN, N.B.

"NEW ERA" CREAM SEPARATOR

CLOSEST SKIMMING—LIGHTEST RUNNING

1875 FREIGHT PAID

CAPACITY 180 Lbs. OF MILK PER HOUR



2350 FREIGHT PAID

CAPACITY 300 Lbs. OF MILK PER HOUR

Every valuable improvement of recent years, that has stood the test of time, is embodied in these machines. They are finished in a rich blue enamel. All gears are enclosed. Tinware is seamless. The oiling is arranged for at a few handy points which reaches all parts necessary to lubricate. The accurately cut gears reduces friction to a minimum, and makes the Separator very light running and long-lived. Bearings are adjustable and interchangeable. All wearing parts of the mechanism are made from the smoothest and most wear-resisting metals known, which means long life to the machine.

HIGHEST QUALITY AT LOWEST PRICES

The design, manufacture and material throughout are such as to fully justify us in stating that the exceptionally low price gives the purchaser an advantage hitherto unattainable. We sell them under the **EATON** guarantee. Our customers all know the merits of that, and we ask you to judge and compare and test as you like. **Note:** Order by number, as given below.

71-172. Capacity 180 lbs. of milk per hour. For bench use. Price, freight paid \$18.75
71-173. Capacity 300 lbs. of milk per hour. For bench use. Price, freight paid \$25.50

Machines on a strong iron base, with swiveling shelves and supply tank on bracket, as shown in illustration, in 300-lb. and 600-lb. sizes as follows:

71-174. Capacity 300 lbs. of milk per hour, on base. Price, freight paid \$31.00
71-175. Capacity 600 lbs. of milk per hour, on base. Price, freight paid \$42.50

Should you ever require any spare parts we always carry them in stock

We pay the freight to your nearest railroad station. If there is any further information you wish to have about these Cream Separators, write to us and we shall be pleased to answer plainly and fully.

READ THIS Compare the prices above with any other high-grade Separator on the market to-day. What we mean by the term "high-grade" is Separators which have the skimming qualities, mechanism, sanitary features, high-grade tinware, guarantee as to easy running, guarantee as to durability, assurance as to reasonable cost of spare parts. Taking these points all into consideration, we can say that if you use a "NEW ERA" with ordinary care you have a Separator that will last a lifetime with a very small cost for upkeep.

Get our prices on Gasoline Engines, Farm Machinery, Power Supplies, Buggies, Wagons, Wire Fence and Gates, Pumps, Poultry Supplies, etc. We can save you money.

SOLD UNDER THE EATON GUARANTEE WHICH COVERS EVERY DETAIL

The latest and most improved Cream Separator. Its features are sharp and thorough, clean skimming, easy and smooth turning, strong construction, quick cleaning, simple and few parts, and the highest quality and finish throughout. A child can run this machine—it turns so easily, and is built with "trouble" left out.

THE SEPARATOR FOR TABLE OR BENCH

The 180-lb. size is just the machine for you if you have two or three cows, or even one cow only. Also for bakers, caterers and confectioners who want a certain kind of cream, or want cream quickly at times, this machine is most handy. It is for setting on a bench or table, and is light in weight and compact. Has screw holes for fastening down. The 300-lb. capacity in bench style is also a most useful size for a small number of cows.

THE SEPARATOR ON REGULAR BASE

The 300 and 600-lb. Separators, as shown on regular iron base, with shelves, and supply tank set on a bracket, are for floor use in regular standard style. These Cream Separators are perfected machines in every way. They skim exceptionally close, and can be cleaned very quickly and thoroughly, as every part of bowl surface is made so that milk or dirt cannot adhere to it. They have a patented cleaning rod, whereby in an easy and simple way the discs are removed, washed and again assembled in the bowl. Whether you use the bench style or the machine on base, these Separators are all built alike in working parts, and of same high quality. The discs are interchangeable, so that they come together and fit anywhere without being numbered. The new and patented neck bearing is a special feature which assures steady and almost noiseless running, and it is a strong bearing, made to last. The bowl is self-balancing, and cannot get out of order.

FEW AND SIMPLE PARTS

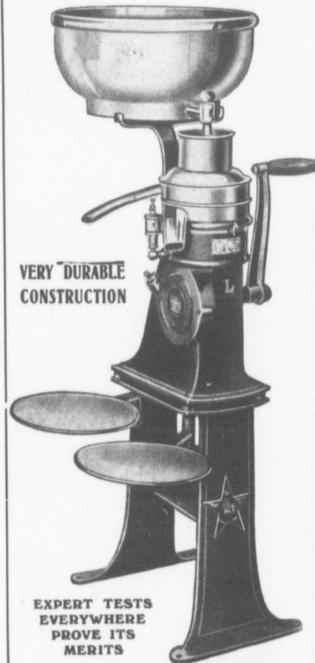
This machine is very strong and durably built. The simple and few parts and discs are a great advantage. In every respect it is a Separator of the highest quality and finish at a very low price and a favorite wherever used, because it stands the hardest tests. All Separators are shipped with accessories complete, such as oil can, separator oil, brushes, wrench, screw driver and book of instructions. We can always supply parts to renew worn ones when required.

These we carry in stock at all times at lowest prices.

FREIGHT PAID

31⁰⁰

CAPACITY 300 Lbs. OF MILK PER HOUR



VERY DURABLE
CONSTRUCTION

EXPERT TESTS
EVERYWHERE
PROVE ITS
MERITS

FREIGHT PAID

42⁵⁰

CAPACITY 600 Lbs. OF MILK PER HOUR

THE **T. EATON CO** LIMITED
TORONTO - CANADA

When you get one of these Cream Separators you get skimming efficiency, durable mechanism and easy running, and the price of machine is very low. What more can anyone desire? Even at double the money?