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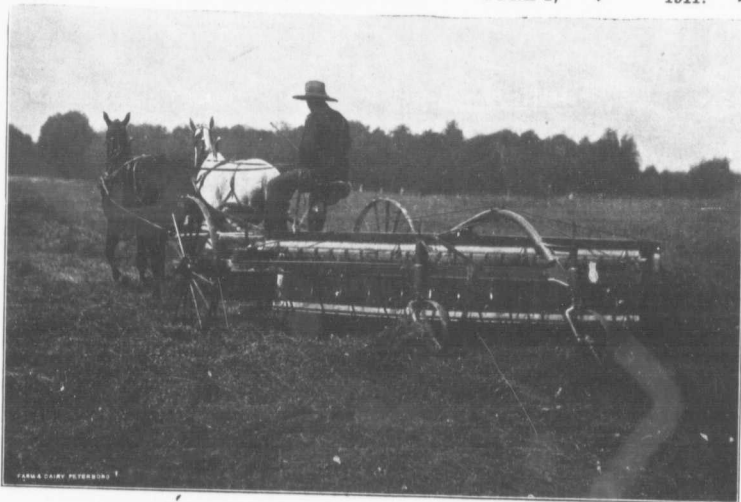
FARM AND DAIRY

RURAL HOME

PETERBORO, ONT.

JUNE 1,

1911.



WILL DO TWO THINGS WHERE ONE WAS DONE BEFORE

Such is the purpose of much of the more recent labor-saving, time-making machinery of our day. And it is more than a purpose. In actual fact it is true in accomplishment. The machine here shown is a side-delivery rake; it may be reversed and made to render most efficient service as a tedder. Throughout this Special Number of Farm and Dairy, much of interest is recorded in connection with the present wonderful development of machinery for doing much more farm work better and more rapidly than it was ever done in the "good old days." Our illustration was taken on Mr. Geo. Laithwait's farm, in Huron Co., Ont., one of the winning competitors in the last dairy farms competition conducted by Farm and Dairy.

DEVOTED TO
BETTER FARMING AND
CANADIAN COUNTRY LIFE

THIRD ANNUAL
FARM MACHINERY
NUMBER
PRICE 10 CENTS

What Do You Know

ABOUT

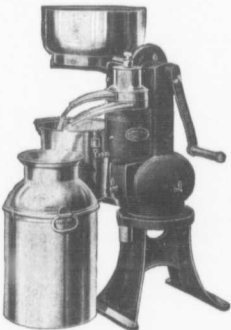
CREAM SEPARATORS?

Do You Know that every important mechanical device has its imitators?

Do You Know that the Simplex Link-Blade Separator has its imitators?

Do You Know that the Simplex is the only separator having the self-centering bearings?

There is considerable you ought to know about separators, and the better you know



Note the heavy, compact, construction and convenient height of supply can and discharge spouts. The top of the supply can is only 3-1/2 ft. from the floor.

the better you like it. The better you know some separators the less you like them. There are thousands of satisfied SIMPLEX users in all parts of the world, which should convince you that The Simplex Link-Blade is still in the lead.

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Montgomery, Alabama

Rural Hydro-Electric Power

The Act passed during the last session of the Ontario Legislature for the rural distribution of Hydro-Electric power, provides that any number of individuals in a Township can petition the Township council to be supplied with power, giving the number of the lot and as many particulars as possible, and upon receipt of a petition, the Township council is to forward the petition to the Hydro-Electric Commission. Upon receipt of it the Commission sends an engineer to look into the situation and gather all particulars and data necessary to enable them to furnish an estimated price for the power so petitioned for.

If the estimated price is satisfactory to the applicants, the Township then takes the necessary steps to enter into a contract with the Hydro-Electric Commission to enable them to construct a line and supply the power. The individual farmers so applying are responsible to the Township for the cost, and no extra charge is visited upon the other ratepayers of the Township who do not care to take power. The individual farmers so applying are responsible to the Township for the cost, and no extra charge is visited upon the other ratepayers of the Township who do not care to take power. It also provides that the trustees of a Police village may make an application to the Township council, and if the estimated price is satisfactory the bylaw is submitted to the ratepayers of the Police village and if passed all ratepayers in that village are assessed for the power, the same as is done by the towns and cities.

The Hydro-Electric Commission are unable to give Farm and Dairy readers any definite idea of what the power will cost without first having the report of the engineer as to the distance, quantity of power to be used, and expenditure necessary to convey the power to the particular part of the Township required by the petitioners. It is interesting to learn that the Commission have before them a goodly number of applications from the various Police villages and townships under this Act, some of which have been accepted and the necessary steps are being taken to furnish them with power.

Motor Truck on the Farm

The performance of a motor truck at Arcadia farms, Dutchess county, New York, shows what this vehicle can do when operated intelligently in connection with a large agricultural enterprise. The property embraces 800 acres, two-thirds of which is under cultivation. The equipment includes modern machinery for farming on a large scale.

"My main object in using a motor truck, was to save my horses," said Maurice M. Minton, the proprietor. The truck has carried from the railroad station to the farm, a distance of four miles, over 1,000 tons of fertilizer, two forty-ton loads of coal, 2,500 barrels of cement and carloads of various other materials. It has carried five car loads of grain to the station and transported 600 tons of small stuff. Frequently it has gone to Fishkill Landing, 10 miles distant, twice a day with heavy loads.

ITS SHORT TRIPS INNUMERABLE. It takes grain to the mill and brings back the ground feed. It takes tree trunks to the saw mill and carries back beams and planks. It carries hay or straw as and in the field, to the barns or storehouses. It also carries stones to the crusher.

"Not a day has been lost for repairs and not one cent has been paid out for this purpose," said Mr. Minton. "The expense of operating the truck is about equal to the cost of maintaining two good teams with oats at 60c; that is, oats versus gasoline and oil. But no four pairs of horses could carry the loads so far in the same time, if at all.

"The auto truck takes three to four tons as bulk necessitates and proceeds up hill and down at 10 miles an hour,

whether the distance be five miles or 50. Keeping it within a horse's limitations, say a round trip of 20 miles, with time to unload, the truck will do in three hours what will employ two teams for seven hours. This is all the horses can do that day while the truck can repeat the journey two or three times if necessary and suffer no hardship. It would take from eight to twelve horses to equal the performance of the truck, but it would take two, four or six men to drive the horses."

Small Tools on the Farm

If the average farmer were asked "How much money have you invested in the small tools on this farm?" it is probable that after a moment, during which he would have a mental picture of an axe, a hand-saw, a grindstone and rather a confused idea that there was a lot of stuff of one kind and another somewhere about the farm, he would reply that from \$50 to \$750 would cover the cost.

A recent investigation conducted by the Ohio Experiment Station in cooperation with the U. S. Department of Agriculture, discloses that this is far short of the mark. In order to arrive at some conclusions in regard to the matter, careful inventories were taken on 35 Ohio farms, and in every instance the total amount was many times what the owner had "guessed."

A SERIOUS LOSS

The fact that these small tools are bought one at a time when needed, and are not cared for systematically, leads to a very erroneous idea of their value. Summarizing the inventories of these 35 farms, it is estimated that to completely equip a general farm of 160 acres in Ohio with small tools will probably cost from \$200 to \$300, or in excess of 60 per cent of the value of these 35 farms. It is estimated that more than 500 per cent. An error of judgment of this amount, particularly when the error is against the farm, is serious enough to challenge our attention.

Even on farms where inventories are habitually taken, these tools of minor equipment are usually included as "other small tools" and given a short-handled, common after the stereotyped expression appearing on sale bills, "other articles too numerous to mention."

Farm requirements differ very greatly in the highly specialized farm not needing nearly so many tools as the general farm. The necessity of a fairly complete outfit is apparent if the farmer would avoid expensive trips to town or to the neighbors to meet some immediate need, thereby stopping teams and laborers until the repair is affected. The advantage of some systematic arrangement is also apparent, in order that the exact tool may be at hand when wanted, and thus avoid loss and delay by reason of mislaid, borrowed, stolen or lost tools.

SOME DIFFERENCES

Some of these tools can be charged to special farm enterprises, as to the horses, the dairy, corn, hay, grain, and so forth, but by far the great majority constitute an overhead charge against the farm. The connection between an auger bit handle and a bushel of wheat may not be at once apparent to the miller, but it requires the auger bit handle to turn the bit, to bore the hole in the plank, to make the wagon jack, to grease the wagon that hauled the grain to the machine and that brought the wheat to the mill. Before the bushel of wheat can yield a profit it must help pay for the auger bit handle and the other minor tools which total \$100 or more in value on any well managed farm.

The item is so small that it is a part of that great overhead charge which exists on every farm and which goes to help make up the difference between what the farmer gets and what some people think he gets.

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Each Week

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Caused by Econo



Prof. John I.

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FOR WEEK ENDING JUNE 1, 1911.

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COMMENT ON THE MORE RECENT FARM LABOR-SAVING MACHINERY

Prof. John Evans, Mechanical Dept., O.A.C., Guelph.

The Progressive Spirit of the Times is Animating Manufacturers in Devising Machines to Solve the Problems Caused by Economic Conditions in Farm Life—Some of the New Machines—Comments and Illustrations.



Prof. John Evans

This phase in the development of agricultural machinery has far greater significance than we at present are disposed to realize. It means doing away with much drudgery; saving of much unnecessary human and animal labor; will eventually reduce working expenses; provide mechanical means for carrying on all farm operations independent of labor influences. Besides affording opportunities for exercising mental rather than physical strength, it will enable the farmer to perform those social functions which add so much to the pleasure of living in the country.

INDICATIONS OF PROGRESS

Interesting indications of the progress which is being made in agricultural machinery may be appropriately expressed in the words "still achieving, still pursuing," for improvements and developments which cannot fail to be industrially useful and valuable, are effected in almost every branch of farm work. The progressive spirit animating the manufacturers of farm implements and machinery is evident in the manner in which they are endeavoring to meet the demands arising from economic conditions affecting farm life. These conditions are being tackled with growing persistence and success by implement makers at home and abroad.

A NEW INTEREST IN MOTOR MACHINES

Interest in mechanically-propelled machines for every kind of farm operations is distinctly gaining ground. Farmers who a little while

ago had not a good word to say of the automobile, have now come to realize that the modern auto car saves time and money for them. Besides being capable of being put to use in various ways upon the farm. It is no longer regarded as a luxury, but a necessity, and consequently all who can possibly afford it are investing in machines for the immense economy which mechanical, as compared with manual and animal, labor is able to effect is to-day one of the world's greatest blessings.

SELF-PROPELLED TILLAGE IMPLEMENTS

Apparently the reasons for the small amount of attention that has been given to self-propelled tillage implements is probably due to the prevailing uncertainty regarding the comparative



Hauling Live Stock to Market

advantages of making implements self-actuating or of attaching them to a motor. Much may be said for and against these two methods of working cultivating mechanism; there is, however, a wide scope for self-actuating cultivating machines on large farms.

The latest novelty along this line is the automobile hoe; an illustration on page 4 shows the implement at work. The propelling mechanism



Sawing Wood with an Automobile—A New Use For The "Devil" Wagon

consists of a two-cylinder engine fitted with a carburettor for employing gasoline or other liquid fuels.

A VERY USEFUL FARM MOTOR

The sensible little machine—the small motor, three illustrations of which appear on page 4 and 5—is a veritable little *multum in parvo*. It can be used for so many purposes, and is sold at the price of a useful horse. Power for power it costs little more than a stationary oil engine, while its earning capacity is many times greater. It will drive all kinds of light machinery by belts, such as grinders, circular saw, cream separator, churn, etc. It will carry loads and haul all kinds of light implements and moving to its work it saves the trouble and expense of fetching a horse to do it, as is the case with a portable engine. It may be sent five or 10 miles to do a day's work. It is made in sizes of from 3 to 4 h.p. and 6 to 8 h.p., and is fitted with four speeds—two to six miles an hour.

MACHINERY MAY SOLVE GREAT PROBLEM

The keen desire of farmers to secure machines and machinery for all kinds of farm work affords one an idea of the great extent to which machinery is taking the place of manual labor in agricultural operations to-day. It is a good sign that there is such interest amongst our farmers, and so far as economic conditions are concerned, machinery affords the only means to solve the present problem of scarcity of farm help. In spite of the scarcity of help the same amount of work may be done and it be accomplished more quickly and economically by modern implements and machinery than would be at all possible under the old conditions and management. Under the new conditions and circumstances it may be more possible to retain the bright and intelligent young men on the soil, and so prevent the depleting of the rural districts and thus make for intelligent and progressive agriculture.

The Hired Boy.—There is the making of a good man in the hired boy on the farm, says the "Farm Journal," but he can be irrevocably spoiled in the making if too much is put upon him; if his shoulders are loaded with blame for everything that goes wrong indoors and out; if everybody feels privileged to give him orders, and if he is regarded as a mere machine without muscles to tire, sensibilities to wound, intellect to stimulate, or a soul to inspire with longings for better things. Those into whose hands are committed these youths ordained to eat their bread in the sweat of their face, have a responsibility above that of merely providing food, shelter, and clothing. An employer may be harboring an angel unaware.

Economy That is Not Economy

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

It is not always economy to use the old mower, as long as it will "cut" grass, or the old binder as long as it will "bind" grain; to do so sometimes is a waste of money.

A friend of mine, a manufacturer, recently informed me that he was never able to wear out his machinery; in fact, that most of his machinery was sold or discarded when it was almost as good as new so far as doing the work for which it was devised might be concerned. This man was engaged in manufacturing boots and shoes. In order to successfully compete with other manufacturers in the same line he had to keep his plant thoroughly up-to-date. Old-fashioned machinery would not make as good shoes or make them as cheaply as would more up-to-date equipment. He had to keep abreast of the times. When I visited his factory I found that efficiency was the watchword right through. A man or a machine that would not make a profit for his employer was not retained.

THE FARMER IS A MANUFACTURER

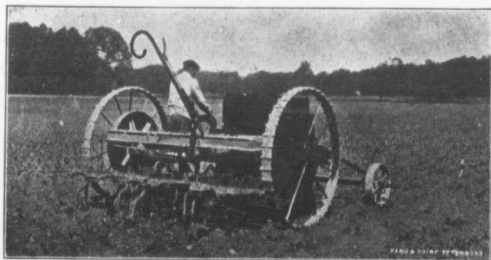
We farmers cannot carry this principle of discarding old machines and getting new so far as can the manufacturer. The relative value of our output does not warrant it. We often do carry our policy of holding on to old machinery, however, too far. One of my neighbors, for instance, insists that he cannot afford to get a new mower, although we all know that he has money in the bank. He still uses the old mower although he loses each year pretty nearly half the value of a new one in the hay that the old one does not cut. He is everlastingly losing time taking it to the blacksmith shop, and it is a cold day when his horses are not warm when attached to that old mower.

It is hard for us to get away from the single furrow plow, the narrow drag, and the one-horse one-row cultivator, when we should have faster working implements. It looks like a large outlay as well as a waste to lay aside our old narrow-working machinery and invest in a two-furrow plow or a three-horse drag, even if they are money-makers. We must get above this feeling, or we will get out of the race.

A FAST WORKING PLOW

A young fellow living a couple of miles down the road from me a couple of years ago invested in a two-furrow sulky plow. He tells me that formerly by "keeping moving" he could plow two acres in a day with the single-furrow plow and two horses. Now he has no trouble in plowing four and a half acres with three horses. He saves the time of a man, the time of a horse, and gets more work done than he would with two single-furrow plows. In explaining why he could do more than twice as much with the two-furrow plow, he said that in addition to doing twice as much, while plowing, much less time was lost turning round at the ends. He estimated that in his 10 days' plowing he saved \$15 in the time of a man alone. It seems a ridiculous thing, but it is a fact that most of his neighbors are still clinging to their old single-furrow plows, although they fully realize that it is a losing proposition.

I believe in giving farm machinery the very best of care and making it last as long as possible,



Something Novel in Cultivators. May we not Expect soon to see it commonplace

but to cling to out-of-date machines is poor economy—a kind of saving the pennies and losing the dollars policy.

How to Get Rid of Woodchucks

There is no need for one to suffer the nuisance and the annually increasing loss from woodchucks, or ground hogs. These pests may be completely exterminated from a farm at very little cost by means of crude bi-sulphide of carbon, procurable from any druggist.

Armed with the carbon bi-sulphide, in a



A Single Furrow Meter Plow

The plowing capacity of this plow attachment to the 60 h.p. motor is about two acres per day with fuel consumption of 2½ gallons per acre. Note on page 5 two other illustrations of this motor.

tightly stoppered bottle as you procured it from the druggist, take along a wad of cotton-batting, a bundle of rags or other suitable absorbent material, a small dish or pail, a spade or shovel, and a good sized pail, and in the short time of half a day or so you will be able to most effectively settle the woodchuck question.

At each burrow plug all of the holes but one and tramp them solid. Fill the large pail with earth and have it ready beside the remaining hole. Take a wad, about the size of your fist, of your absorbent material, put it in the small pail or dish, and soak it with the carbon bi-sulphide; then poke it down the hole as far as possible and plug the hole immediately and tightly with the soil you have ready. Any animal life in the woodchuck burrow thus treated will perish at once.

There is possibly not the same sport in this method of destroying woodchucks as there is in some other means i.e., that of shooting them. It is certain, however, requires but little time, and the woodchuck thus killed is buried.

Since the vapor of carbon bi-sulphide is exceedingly inflammable, caution must be exercised in handling it, and it must be kept away from fire of any kind.

Remarks on Purchasing Machinery

More than ever before economic conditions have made it necessary that we farmers be on our guard in keeping down the capital invested on our farms. A danger point hinges on the matter of buying farm implements.

The implements on a farm afford one a pretty fair index of the business capacity of their owner. There are many machines which might be found on any farm, but there are several, and these generally include the most expensive and the least expensive, which every farmer ought to use and may make of them most profitable investments.

In the category of the least expensive we might mention the hand wheel hoe, an implement which costs a trifle only, and is productive of better crops, and splendid results in labor saving, in the root field and in the garden. A suitable grinding stone, well hung and geared so as to do rapid and efficient work, is also a prime necessity; yet on innumerable farms where the proprietors, in most other ways are progressive they continue to get along with an old style grind stone on a dilapidated frame. These old-time grinders call for a much greater expenditure of time and labor than would be necessary with an improved grinder geared so as to render rapid and efficient service. This may seem like a small matter, too small to mention here, but when we consider the important place it fills in connection with both tilling and harvesting machinery, we ought not to be satisfied with anything but the best and most efficient means of sharpening tools.

Of the most expensive machines that so many will do without, possibly the manure spreader ranks first. Various labor saving, rapid-working implements, which are designed to take the place of old equipment, might also be enumerated here. We shall mention only one, that of a certain cultivator, such as Mr. Grisdale spoke of at Perth last winter. The two-row cultivator cuts time square in two. Why should not every cow grower invest in such an implement?

Many implements of known and undisputed value, but out of question for the 100 acre farm, may be purchased to advantage cooperatively. Neighbors of the right kind, who set themselves to work harmoniously together, may have the advantage of all the latest and best machinery through the cooperative principle of purchase and use, and they may thus reap the benefits from the same without over capitalizing in the machinery departments of their individual farms.

We all must have these later, efficient, labor-saving machines, else we cannot reap to the full the possible returns. We must cast aside, as all business men must do, out-of-date machinery for the more efficient; in order to save ourselves on the cost and make profitable returns possible, we smaller farmers must more and more purchase and use these machines cooperatively.

A man in one of our Cow Testing Associations was asked to pick out his five best cows. This he did. When he came to take records, however, he found that he had eight cows in his herd that made more milk and fat than the best of the five cows he had selected.—J. F. Singleton, Kingston, Ont.

The seed of Mammoth Red Clover is produced from the first crop and no aftergrowth is looked for, as in the case of Common Red Clover. Alsike seed, too, is produced from first growth.—T. G. Raynor, Seed Branch, Ottawa.

The cow that is fed well when she is dry is the one that makes the big record when she freshens. Many of the cows that hold our largest records are fed especially for that test for a whole year previously.—H. Glendinning, Ontario Co., Ont.

Experiences with

H. R. N.

It costs me about a day) to pump to both of these being a 3 h.p. gasoline much in favor of power. It has the milk to separate, saw, roots to pulp about the farm. My engine has been. It has now and it has given when we "to der. The engine is especially grade of gasoline scale to form on the scale is not noticeable is used.

The size of engine, depend wholly upon if he is located to chop his own grass engine. But if he to separate milk, wood and so forth as mine, and it will

The main work of the milk and to the operations are performed in summer, when will pump more winter time there pumped when the uses extra run is for the stock.

My engine is so barn in a milk wall with outside from the engine had in connection. From this main counter-shaft, separator. With of the engine the cream separator

The gasoline for the barn, the tank



A Useful Many uses could be on any 100-acre farm particulars of this

30 feet away. have the tank with barn, and in that it is no extra but stall the engine neighbors have the with the gasoline. The insurance this, providing that when there is no might explode the

Experiences with Gasoline Farm Power

H. R. Nizon, Brant Co., Ont.

It costs me about three cents a run (6 cents a day) to pump the water and separate the milk, both of these being done at the same time with a 3 h.p. gasoline engine. One cannot say too much in favor of a gasoline engine for farm power. It is the proper thing for anyone who has milk to separate, water to pump, wood to saw, roots to pulp, and other similar work to do about the farm.

My engine has proved itself to be always dependable. It has been run for over two years now and it has given no trouble save on one occasion when we "took it down" to clean the cylinder. The engine requires to be taken down occasionally especially if one is not careful about the grade of gasoline used. Cheap gasoline causes a scale to form on the inside of the cylinder. This scale is not noticeable when a good grade of gasoline is used.

The size of engine a farmer should buy will depend wholly upon the work he has for it to do. If he is located far from a mill and wants to chop his own grain, he had better get a 6 h.p. engine. But if he only wants it for light work, to separate milk, pump water, pulp roots, saw wood and so forth, then get a 3 h.p. engine such as mine, and it will do all the work required.

The main work for my engine is to separate the milk and to pump the water. Both of these operations are performed at the same time, and in summer, when we are getting lots of milk it will pump more water than we need. In the winter time there will not be quite enough water pumped when the milk is separated. Five minutes extra run is required to pump enough water for the stock.

My engine is set right in the basement of the barn in a milk room built against an outside wall with outside window space. The drive belt from the engine runs a horizontal shaft that I had in connection with my old power wind-mill. From this main shaft the speed is reduced to a counter-shaft, from which I run the cream separator. With a friction clutch on the drive wheel of the engine we find this means of driving the cream separator to be most satisfactory.

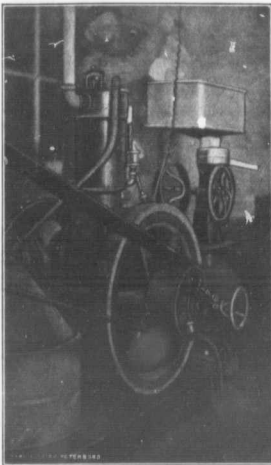
The gasoline for our engine is kept outside of the barn, the tank being located in the ground



A Useful Motor for Farm Work

Many uses could be found for a motor like this on any 100-acre farm. See article on page 3 for fuller particulars of this machine.

30 feet away. While it is certainly safe to have the tank with the gasoline away from the barn, and in that position after once installed it is no extra bother, it is not necessary to install the engine in this manner. Several of my neighbors have their engines right in the barn with the gasoline tank in the base of the engine. The insurance companies do not object to this, providing the tank is filled in the daytime when there is no artificial light about which might explode the gasoline.



The Favorite, General-Purpose Farm Power

Mr. H. R. Nizon, who may be seen in the dim background of this illustration, tells in the adjoining article what he thinks of this 3 h.p. gasoline engine, shown here as it is at work on his farm.—Photo by an editor of Farm and Dairy.

Comparisons—Hand vs. Power Sprayers

W. B. Wolverton, Lincoln Co., Ont.

Power sprayers for orchard work are an all-important consideration to the up-to-date fruit grower. The old saying, "If a thing is worth doing at all, it is worth doing well," applies especially to the fruit grower, who must do most thorough spraying if he wishes to get the best results.

A power sprayer, under a pressure of 150 pounds, will spray at least 1,000 gallons of solution a day, and do it thoroughly, at a cost of 35c. a day for gasoline and the wages of two men only, thereby minimizing the expense of spraying to a very small fraction of a cent a gallon.

On the other hand, the less up-to-date fruit grower, without a power sprayer, employs two men to do his spraying with his hand pump, who if they get out 250 gallons a day have done exceedingly well for man power. The fruit grower with the hand pump, it will therefore be seen, employs the same amount of labor as the power outfit and practically at the same expense, and only sprays one quarter of the material, and in many cases the work with the hand power is not thoroughly done. In comparison after allowing the interest on the investment for the power sprayer, one will readily see it is by far the cheaper and decidedly the more effective.

At one time we looked upon spraying as a great nuisance. However, since we were forced by the various fungous and insect pests to spray, if we would grow marketable fruit, and we got a full equipment of power spraying machinery, we spray just as we do other orchard or farm work, and do not think anything but favorably of the work of spraying.

Alfalfa inoculation.—The good effect of inoculating the soil for alfalfa culture has been shown in connection with the State and County Farm demonstration work in Wisconsin. At Viroqua, on an alfalfa field of 20 acres, half of which was inoculated, the inoculated part yielded at the third cutting 1½ tons per acre against three-quarters of a ton where uninoculated.

Money for Underdraining Work*

When underdrained land produces, on the average, \$20 more an acre annually than non-underdrained land, as statistics show, as well as being in a better condition to work and can be worked from two to six weeks earlier in spring, why is it that there are still in the neighborhood of five million acres in Ontario that are urgently in need of draining?

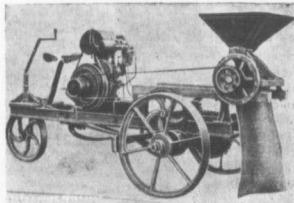
The chief reason is lack of money. Farmers tell me that they cannot produce the initial outlay necessary for drainage work. To meet this need in drainage work I would advise Farm and Dairy readers that the Legislature of Ontario has made special provision—there is a large sum of money, known as the Consolidated Revenue Fund, at a farmer's disposal, which he can get in one or more hundreds of dollars for a term of 20 years. Each \$100 is to be paid back in sums of \$7.36 a year.

It costs on the average \$25 an acre to underdrain. Therefore, \$100 would drain four acres. This land, once it is drained, will produce \$80 more per year than before it was drained. Of this increase the farmer would pay back \$7.36 per year and have left \$72.64. Surely this is a good enough investment! In fact, it sounds too good to be true, and farmers seem as much afraid of it as they are of the proverbial gold brick.

To get this money for your underdrainage work, estimate the entire cost and make application to the township council for it. If the council approve of the loan they will pass the necessary by-law, if such has not already been passed, and they will issue debentures of the municipality to the extent of 75 per cent. of the cost of draining. The Government buys these debentures with the Consolidated Revenue Fund, and the farmer, you, may receive the money.

The money thus borrowed you are to pay back in 20 instalments—\$7.36 a year for each \$100 borrowed—or one may discharge at any time his entire indebtedness, plus interest at four per cent., less amount already paid. The instalments of \$7.36 are to be paid at the same time as taxes and the farmer, you, need never feel the difference.

Farmers in Haldimand township, Northumberland Co., Ont., and in many other places are securing money for underdrainage in the way I



The Same Motor at Other Work

This illustration shows the motor as it may be used for grinding; the body has been removed and a grinding mill attached to the frame.

have explained. Why the opportunity is not more generally taken advantage of elsewhere is a mystery to me.—H. C. N.

When storing machines and tools they should be thoroughly cleaned of all dirt and rust, and the working metal parts well oiled. A coat of paint on the woodwork and metal braces will help greatly to preserve their condition.—The cost is a mere nothing.—L. C. Smith, Peel Co., Ont.

* This article is the first of a special series that has been arranged for by Farm and Dairy to be written by Mr. H. C. Nizon, an expert on underdrainage, who will from time to time instruct our readers on things worth knowing about underdrainage—that great money-making means of farm improvement.

A New Implement for Deep Plowing

Prof. John Evans, O.A.C., Guelph, Ont.

The proper preparation of the seed bed is not an easy task. In accomplishing it one must move and disintegrate large quantities of earth. No tool has hitherto been invented that will do the work thoroughly, but the machine as pictured on



Getting Away Down Deep

this page goes a long way to realize the desired consumption.

Experiments have demonstrated beyond a doubt that, with but few exceptions, the best seed beds are made by deep plowing to a much greater depth than has been the common practice. Work of the character required is beyond the capacity of the ordinary plow. It requires an implement that will penetrate the earth and turn it to a much greater depth.

WILL PLOW 16 INCHES DEEP

The machine referred to is especially adapted for tilling to a depth of from eight inches to 16 inches. It consists of a massive frame, composed of heavy castings, structural steel and forgings. This frame is mounted on three wheels running on chilled journals, in large chilled bearings. The discs are 24 inches across and have a special bevelled edge, which adds greatly to its strength; they are placed with respect to each other, so that the front one is higher than and partly to the landside of the rear one.

ABOUT DEEP CULTIVATION

In support of deep cultivation I would have Farm and Dairy readers consider the following:

"No principle in agriculture has been more thoroughly demonstrated than the value of a deep, thoroughly pulverized seed bed. The Romans plowed on an average nine inches deep—always three times for a crop, and in stiff lands nine times. They did not call three inches 'plowing,' it was only 'scarifying.'

"The Flemish farmers were the first to follow the better lines of agriculture after the dark ages. They devoted their efforts to three main points: (1) The frequent and deep pulverization of the soil, (2) the accumulation of manure, and (3) the destruction of weeds.

"A deeper and more thoroughly pulverized seed bed was the foundation upon which England built an improved agriculture, and this principle has been generally accepted there for more than 160 years, until the average production has increased nearly fivefold."

ADVANTAGES OF DEEP SEED BED

"Concretely stated, a deep, thoroughly pulverized seed bed filled with humus has the following advantages:

(1) It provides more food, because it increases chemical action and multiplies bacterial life in a larger body of soil.

(2) It stores more moisture rapidly on account

of its cooler lower strata and the presence of more humus.

(3) It increases the number of roots that a plant will throw out.

(4) It allows plants to root deeper and find permanent moisture.

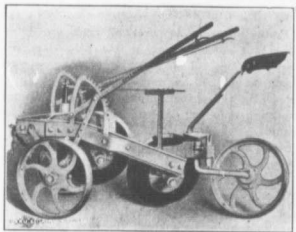
(5) It largely obviates the necessity of terracing, because it holds so much water in suspension that heavy rainfalls will go to the bottom and be held by the drier earth above until they can be absorbed by the subsoil.

(6) Humus enables the soil to store more moisture, increases its temperature, makes it more porous, furnishes plant food, stimulates chemical action and fosters bacterial life."

A Factor in Root Culture

Most Farm and Dairy readers, we reckon, are like our editors in one particular at least, that they would rather have a horse to pull a wheel hoe or cultivator than to push a hand wheel hoe. There is, however, a large and important place for the hand wheel hoe on every farm where an acre or more of roots are grown and where there is a kitchen garden.

With an ordinary horse cultivator or sculler fitted as well as is possible to devise and set the cultivator teeth, it is not possible to get closer to the row of roots than about three inches on either side of the row. This means leaving a strip at least six inches wide, and often it is 10 inches or more in width which must be hoed by hand. With the hand wheel hoe it is possible to get within an inch of the row on either side and to cultivate the very day after the rows can be discerned. And because of this fact the hand



Side View of Deep Tilling Plow

wheel hoe is an important factor in the successful culture of roots.

The young plants of mangels, sugar beets, or turnips are exceedingly tender, and as ordinarily happens they are handicapped in getting to the light of day and making an early growth on account of a crust which has formed over the surface of the soil. The hand wheel hoe, made use of as soon as it is possible to see the rows, breaks this crust, allows the air to get into the soil, conserves the moisture, and aids greatly in forcing the growth of the young plants.

It may seem to Farm and Dairy readers, as we confess it did to us at one time, that the hand wheel hoe is an impracticable proposition for a large acreage of roots. When one considers the matter, however, it will be found that the use of the hoe becomes more and more necessary the larger the area to be cultivated. While discussing this matter in Ottawa recently with Mr. John Fixter, of the Macdonald College Farm, he said that at the College they grew from 15 to 18 or 20 acres of roots each year, and all of this area was hand wheel hoed.

Mr. Fixter believes in the hand wheel hoe as being one of the secrets of successful root culture—this together with sowing plenty of seed. The hand wheel hoe costs only about \$6, and one man working with one of these implements will do the work of six men hoeing in the usual way.

Boys and Manure Spreaders

N. C. Campbell, Brant Co., Ont.

It cannot be said of our farm boys that they are afraid of hard work. They object, however, to doing that hardest kind of hard hand work, spreading manure, when it can be done even with pleasure by a manure spreader, which machine, although costly, has been demonstrated to be a paying investment on any well stocked 100 acre farm.

I can imagine a lad of from 16 to 20 years standing on the shady side of an old straw stack, four feet high and well rotted, on a hot day putting on his load. We will watch him as he drives it to the field and then see him toiling scattering the manure on a strip from 30 to 40 feet wide, his clothes wringing wet, his brain weary, patiently waiting for the sun to set that he may go home to rest. This picture, thanks to the manure spreader, is one of the past on many farms to-day.

If the picture may be seen still on your farm, just take into your imagination a picture on a neighboring farm where a lad is loading his load on a spreader; follow him to the field, see him set his machine in gear, chirp to his team, then begin to whistle "What's the matter with father? He's all right!" It is reasonable to guess that the boys will stay at home on that farm all right.

Manure spreaders have come to stay. They are a great labor saving device and they are a most profitable machine. Distributed with a spreader, manure will go from three to four times as far as if spread as ordinarily by hand, and it will do more good since it is pulverized and spread evenly by the spreader thus enabling the roots of the plants to get the full value of the manure.

The advantages of the manure spreader are well known to progressive readers of Farm and Dairy. We have used one on our farm for some years now, and while it took us quite a while to decide—before we bought it—that it would be a good and paying investment, we have had no doubts on that point since we had it spread the first few loads. We look upon our manure spreader as an indispensable part of our farm equipment.

One first principle in handling any live stock is to be master of the situation. One cannot get full value from a horse until it is completely under control. It is the same with bees. To be a successful bee-keeper one must be a bee-master; not in any cruel sense any more than with a horse. To manage a horse one must know a horse. To manage a bee one must study their habits and disposition, and learn as far as possible why and how they do things. This takes time, but it is well spent.—Morley Pettit, Ontario Provincial Apiarist.



Not the Most Satisfactory way to Handle Manure

Ditch

W. Emm
The main question "Does it pay to get the drains by hand or by the machine at the relative method digging is slow



The Tractor

The operator makes crossroads in front of the machine desired.

age farmer too diggers are hard

During the summer owned by Mr. W. was brought into pieces of the District Agriculture, and operated in the good chance to it was an unqualified opinion of all averaged about inches wide and are fully as low professional diggers good ground, average. So satisfied was a machine that an back during the

ADVANT

Ditches are dug than can be done by hand. The machine is done by hand in smothering. The machine is done by hand in smothering. The machine is done by hand in smothering.

The machine m has sufficient firm maintain traction thing from a wet

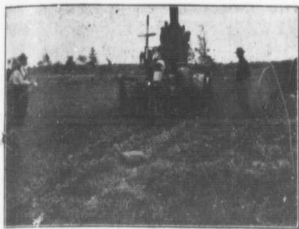


The Ditch Ca Note the short come through the marks the start

Ditching By Machinery

W. Emmerson, Lanark Co., Ont.

The main question in underdrainage to-day is not "Does it pay?" but rather "How are we to get the drains dug?" It must be done either by hand or by machine. To one who has seen the machine at work there is no comparison as to the relative merits of the two methods. Hand-digging is slow and laborious and for the aver-



The Tractive Ditcher off to a Good Start

The operator may be seen sighting ahead. Note the crossroads in front by means of which the operator adjusts the machine to dig the ditch true to the grade desired.

age farmer too wasteful of time. Professional diggers are hardly to be had at any price.

During the summer of 1910 a traction ditcher owned by Mr. W. J. Tuck of Weirstead, Quebec, was brought into Lanark county under the auspices of the District Office of the Department of Agriculture, and during the six weeks that it operated in the neighborhood of Perth I had a good chance to observe its work. In saying that it was an unqualified success I am but quoting the opinion of all who saw it. Mr. Tuck's prices averaged about 22 cents a rod for drains 12 inches wide and three feet deep. These prices are fully as low as can be obtained from any professional digger. As for speed, he could, in good ground, average from 75 to 100 rods a day. So satisfied was everybody with the work of this machine that an effort is being made to have it back during the coming summer.

ADVANTAGES OF THE DITCHER

Ditches are dug very much better by machine than can be done by hand unless the hand-digging is done by line and a great deal of care used in smoothing. The machine digs the ditch complete at one operation, digging from a few inches to upwards of four feet in depth and carries a perfect grade regardless of the surface of the land. This last point is accomplished by using cross-head stakes and keeping the digging wheel adjusted to this line.

The machine may be operated on any land that has sufficient firmness to carry the machine and maintain traction power, and will handle anything from a wet subsoil to the hardest possible



The Ditch Can be Dug Other Than Straight

Note the short turn required of the machine to come through the gap shown in the foreground. The X marks the start of the ditch.

condition that clay attains. In stony land, unless it is very hard and dry, rocks ranging in size up to that of a man's head may be removed without damage to the machine. In the case of a large rock the digging wheel may be easily lifted to commence work again on the other side.

The machine method is quicker; a machine will dig as much in half an hour as a man will dig in a day. The machine work is cheaper even when we include the time given to helping the man at the machine. It is generally more accurate in the grade.

WHAT THE TARIFF DOES

It seems clear that the future of underdrainage rests with the traction ditcher. There is but one company engaged extensively in their manufacture, and that is the Buckeye Traction Ditcher Co. of Ohio, U.S.A. They quote ditchers similar to those at present used in Ontario at from \$1,200 to \$1,400, but by the time freight and duty have been paid they cost from \$1,800 to \$2,200 laid down here. At this price it is likely that their importation will be slow and for the sake of the advancement of underdrainage this is to be regretted. At the present time there is an agitation to have the duty removed, and if this were accomplished the interests of the farmers of the province would be advanced thereby.

Milking Machines as Investments

In the important dairy district around Montreal, only three milking machines are installed. This fact is the more surprising as these machines are run to the entire satisfaction of their owners. The other day I learned, however, that many farmers would like to try the milking machine, but are afraid of the high initial expenses. In order to give these farmers a clear understanding of what the installation of a milking machine outfit will mean to them from a financial standpoint we give here the cost of a milking machine outfit for a herd of 30 cows, which is a good sized herd for machine-milking. We would not encourage the use of the milking machine by small holders.

The initial outlay will be:

3 milkers	\$225
1 vacuum pump	85
1 vacuum tank	13
15 stanchion cocks	14
2 5-inch gauges	6
	<hr/>
	\$343

To this amount we must add the cost of piping and installation, probably necessitating the outlay of another 25 to 50 dollars. And last, but not least, the farmer needs an engine. However, we do not like to charge the engine completely to the milking machine account, as it can be used to advantage for other farm work. A gasoline engine of two horse-power will work six milkers and cost \$105. So that the total cash outlay will amount to \$500. This is certainly a considerable sum of money, but the machine is worth it, and is earning, so to say, its own cost. Here is a good example of the necessity for a farmer to keep a business account, in which he charges or credits his more valuable material, and in that way is able to figure out his real profit or loss on each special unit in his enterprise. The milking machine gives us a good opportunity to figure this out in detail.

What is the yearly expenditure involved in the use of the milking machine?

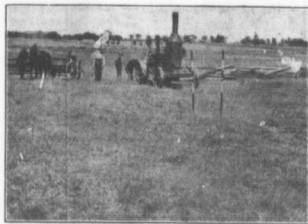
YEARLY EXPENDITURE ON MACHINE

In the first place we have the interest charges on that outlay of \$500. A farmer can make easily six per cent. on his money, and thus the interest charged to the milking machine will be \$30. Then we must make a charge for the depreciation in

(Continued on page 15.)

Tile Ditching by Means of Machinery

A ditching machine that worked in the vicinity of Perth, Lanark Co., Ont., last spring gave tile draining a great boost in that locality. The ditcher, a privately owned machine, was working under the direction of the local branch office of the Ontario Department of Agriculture, in charge of Mr. R. S. Hamer.



Through the Gap—A Perfect Job

The land on which the traction ditcher here shown was digging last summer is of a clay nature. The ditch averaged 3 feet deep, although in putting in this ditch it was necessary to run it for over 300 feet at 4 1/2 feet deep in order to hold the grade.—Photo taken on the farm of D. J. Drummond, Lanark Co., Ont.

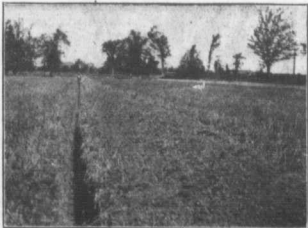
While at Perth last fall one of the editors of Farm and Dairy secured the photos of the ditcher reproduced on this page and some facts in regard to the efficiency of this ditching machine.

One of the great difficulties standing in the way of the more general and rapid installation of tile drains is the fact that a great many farmers do not know how to drain. They do not know how to dig their drains to a grade or how to lay the tile and they have not the help. The machine ditcher solves to a great extent these problems.

Most of the draining that was done near Perth last summer was gotten in between harvest and silo filling time. At every place that this machine ditcher worked there would be from 50 to 100 people in to see the machine working. These men all secured much information in regard to draining, which, it is anticipated, will bear fruit many fold within the early future.

On account of the peculiar and great need of underdrainage in many parts of Lanark county, the new interest in tile drains caused by the ditcher that worked there last summer is bound to be far reaching and of great ultimate advantage to the agriculture of the county.

The efficiency of this machine is adequately described by the four photos reproduced on this page, and the information in small type therewith.



The Finished Ditch—Ready for the Tile

The machine that accomplished this work, and is shown in the other illustrations, is owned by A. J. Tuck, and has been operated in Ontario for eight years.—All photos by R. S. Hamer, District Representative for Lanark County.

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THE CANADIAN AIRMOTOR

Will raise water from the deepest well, or will bring it from a spring any distance from your house, and put it just where you can use it to best advantage. In your house, your barn, for watering your garden, or for fighting fire.

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ONTARIO WIND ENGINE & PUMP CO. LTD.
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Farm Power that Has No Equal

Considering the actual fuel used in the combustion engine while at work, there is more expense incurred in running a gasoline engine than there would be in a steam engine of the same horse power doing the same work; but, for the farmer who wants a power only occasionally and wants it quick and with small attention, the gas engine, which consumes fuel only when performing work, is far superior and less expensive than the steam engine plant, which consumes considerable fuel in getting ready for work, and which also requires the constant attention of the operator.

The gasoline engine to date is the most satisfactory power which the farmer can use. This engine is used as a stationary, a portable and a traction power. The many lines of agricultural work to be done with gasoline engines are limited only by the ability of the farm manager.

I would advise the farmer to take a careful survey of what his conditions are, says F. R. Crane of the Illinois College of Agriculture, and purchase

a gasoline engine of sufficient size, locate it on a strong foundation, in a clean, light space, free from dampness, if possible. Use the best gasoline and lubricating oil obtainable; take intelligent care of the engine, and do not change any of the parts until there is a certainty that something is wrong.

Remember, that much of the so-called gasoline engine troubles arise from the too free use of the wrench in making some supposedly needed adjustments. We believe that so far as understanding and successfully operating the gasoline engine is concerned, a person of average ability need have no fears, and there is nothing more sure than that, under present existing conditions the gasoline engine as a farm power has no equal.

Stacking Hay in Alberta

There are in Alberta thousands of acres of hay land, so easy methods and quick devices are necessary to facilitate the harvesting of the crop.

The device shown in the illustration is very simple and it is much used for stacking hay in Alberta. The teams drag the sweep down a wind-row and bring the bundle of hay to the stack on to the carrier—the apparatus at the bottom of the slide in the picture.

The rope runs through pulleys at

takes the hay from the sweep and carries it to the top of the slide, where it drops on to the stack.—Annie E. Telford, Elgin Co., Ont.

The Use of Manure

T. R. James, Middlesex Co., Ont.

We ought to appreciate more fully the value of manure and of proper methods of handling it. We ought to figure it as worth at least \$2 a ton, and we should get that amount, or in many cases much more than that out of it by proper handling.

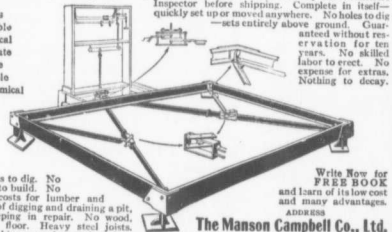
Just how manure should be handled will depend upon conditions. The best method where cattle are fed in barns, sheds or lots, is to haul the manure to the fields day by day, and sweep by week as it is made. There is least loss in handling it in this way although this plan is not always feasible.

In the handling of this by-product a manure spreader will pay on the average farm of 100 acres or over, and where much stock is kept it will pay handsome returns on farms of much smaller size. Most men think that the value of a manure spreader lies in the saving of labor; while this is an important reason for its use, it is not the only one. A reason that is important, or even more important, is the fact that manure put on evenly and

This New Portable, Pitless Wagon and Stock Scale is Simpler, Stronger, Cheaper and

far more durable than old-style scales. Absolutely accurate—designed and constructed by an expert, every scale sealed and inspected by Government

Pitless
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Accurate
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No pits to dig. No extra costs for lumber and labor of digging and draining a pit, or keeping in repair. No wood, except floor. Heavy steel joints. Everything complete and perfect.

Inspector before shipping. Complete in itself—quickly set up or moved anywhere. Guaranteed without reservation for ten years. No skilled labor to erect. No expense for extras. Nothing to decay.

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A Labor Saving Hay Stacking Outfit in Alberta. See article for particulars.—Photo by A. E. Telford.

the top ends of the slide and around the carrier. The horses are unhitched each end of the rope on each side of the stack. As soon as they start the carrier rises to a vertical position

rather lightly over a large area, will give larger returns per ton of manure applied than the same manure put on heavily and irregularly over a smaller area. The difference in returns will frequently pay for the spreader in a single season.

There is one other reason why a man should own a spreader and this is that when he has his money invested in such an implement he will almost invariably take better care of the manure his farm produces. This latter is an important item since so many are inclined to regard the manure as a nuisance, whereas it represents and should always be considered an important cash asset.

Separate Milk by Power

Can a cream separator be run with a 6 h.p. gasoline engine and run all right? How should it be arranged?—J. D. G. Stormont Co., Ont.

Your correspondent can operate his cream separator very satisfactorily with a 6 H. P. engine. We recommend the use of counter shaft, and if he wishes to reduce the speed he might find it necessary to have a short counter shaft specially for his cream separator, but he can get a very small pulley to attach to his line shaft, and probably get cream separator result running it direct.

Any difficulty that might be encountered is really only a case of figuring proper sized pulleys to give a satisfactory result. If other work than running the cream separator is to be done at the same time by running direct from the pulley on its engine to a line shaft, one could then put in a short counter shaft connected with line shaft and run the cream separator off it, with but very little expense.—Gould, Shanley & Muir Co., per W. H. Whitaker.

Now is the Time to Repair the Roof

The seeding is done—you have a few weeks of spare time until the hay is ready to cut, after which you will be busy with the harvesting and threshing until the fall. This is an excellent opportunity to repair the roofs of your barns, while the weather is warm and fine—but, stop a minute, why be under this expense every year, not to mention the labor—for a wooden roof is continually in need of repair? Why not replace it with a durable fireproof roof?

"Eastlake" Metallic Shingles

They never need repairs—can be cheaply and quickly laid by yourself, and will last a lifetime. Roofs laid 20 years ago with "Eastlake" Shingles are weatherproof to-day. A roof covered with "EASTLAKE" STEEL SHINGLES is proof against lightning, wind, rain or snow.

A barn roofed with "EASTLAKE" METALLIC SHINGLES and sided with our Galvanized Corrugated Iron Siding, is absolutely protected from fire from outside sources.

Let us quote you on rat and mice-proof sheet metal lining for your granary also send measurements of your barn and let us give you complete estimates of cost of roofing or siding, or both.

MANUFACTURERS

The Metallic Roofing Co. Limited
TORONTO & WINNIPEG

Factors in Co-

Cooperation among purpose of securing for farm products a firm to yield as well to encourage attention to the thing. But since tending is the different price and the cost of production, this latter way of they are under t



Possible Profit

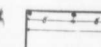
each individual farm out and effect a cut in the cost of production and management.

If through betterment the average returns could be increased, a tremendous effect. Mr. M. Farm Mechanics, in North Dakota, in his State nearly the value of the farm machinery of the total crop who follow grain is tied up in machinery does not should.

Consider the case is not uncommon expensive machinery corner of a field used! Other binder are given in they are hauled and are allowed to lie of some protection. Beside it fusion are other in



Door with handle and lock mechanism.



Plan of a Vertical Shaft with Pulley and Counter Shaft.

of farm machinery scrap heap at a light the agents of In all probability readers care for the more rational manner, however, have in which to house empty room on the already over-crowded depended upon the merits. Any of the industry, cause r

Factors in Cost of Production

Cooperation among farmers for the purpose of securing an equitable price for farm products, is one way of causing a farm to yield more profits, and it is well to encourage the cooperative attention to the market end of farming. But since the profit from farming is the difference between the selling price and the cost of production, it is well to pay attention to reducing cost of production. Profits made in this latter way are more certain and they are under the direct control of

and on occasion too often implements must be allowed to "weather" because standing room is not available under cover. A special implement shed is next to an absolute necessity, and because so many are required we present herewith a plan of a very suitable and convenient shed for storing implements. The building may be constructed in size to meet the requirements of the amount of machinery kept on any farm.

The advantage of good housing for machinery is well illustrated in the case of the binder, the average life of

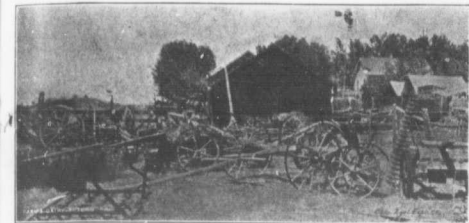
this plan that the horses soon forget the habit.

About the Grindstone.—Many a hard hour's work have the boys put in, and so have the girls, too, to say nothing about the wives, who deserve special mention, at turning the grindstone on most farms. Where one has not an engine or other power available, it will be found an advantage to propel the stone from a treadle. On the opposite side from the treadle fasten a balance wheel. This will be a great help as it causes the stone to run surer and easier. Some sort of a wheel or pulley that will serve the purpose of a balance wheel can be had for next to nothing at almost any junk shop.

ENCOURAGE THE BOYS



Stocks carried at many convenient points in Canada. Ask for address of nearest Canadian Agency.



Possible Profits from Many Farms are Lost in "Junk" Heaps Like This

each individual farmer; he may start out and effect a considerable reduction in the cost of production by better care and management of his farm machinery.

If through better care and management the average life of farm machines could be increased by a single year, a tremendous saving would be effected. Mr. M. Dolve, Professor of Farm Mechanics, at the State College in North Dakota, has estimated that in his State nearly one-fifth of the entire value of the crop is invested in farm machinery. A large percentage of the total crop of Canadian farmers who follow grain or mixed farming, is tied up in machinery, and this machinery does not receive the care it should.

NEGLECTED BINDERS

Consider the case of the binder. It is not uncommon to see one of these expensive machines stored away in the corner of a field where it was last used! Other binders in goodly number are given more consideration; they are hauled up behind the barn and are allowed to weather in the lee of some protecting tree or barn wall. Beside it in more or less confusion are other implements and pieces

which, as usually managed, is exceedingly short. While as a rule we farmers complacently measure the life of the binder in years, its real usefulness may be counted in days. On the average it is used not more than from 10 days to two weeks a year, and it lasts for about seven years, which gives it a period of usefulness of approximately from 70 to 100 days. It is obvious that this time could be indefinitely increased and that improper work and large expenses for repairs, consequent on neglect and mismanagement, can be overcome by better care and management and proper housing.

Considering the high price of binders, and the expensive, delicate and complicated mechanism of many other farm machines, now so necessary on any well equipped farm, few better investments can be made on a farm than that of providing adequate shelter for the farm machinery.

To Prevent Kicking in Stall

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

I have used a very simple device to prevent and cure horses from kicking in their stalls. A good strong plank is placed across the stall just over the

animal's hips and an inch above them. This makes it impossible for the horse to kick as it prevents it from throwing up its hind end. Where kicking in the stall is due to nervousness, the commonly applied remedy, namely, a good threshing, will do more harm than good. A plank fixed in this way does not interfere with the horse's comfort and if the habit cannot be overcome, the plank can be left there indefinitely with little trouble. I have found, how-

Poultry Fencing that is Stronger than Seems Necessary

We make our poultry fencing close enough to turn small fowl—then we make it extra strong, so it will last for years and keep the cattle out. The heavy, hard steel top and bottom wires hold it taut and prevent it from sagging.

PEERLESS POULTRY FENCE SAVES EXPENSE

It is well galvanized so as to protect it from rust. It makes such a firm, upstanding fence that it requires less than half the posts needed for the ordinary poultry fence, and that means a big saving to you. Write for particulars.

We make farm and ornamental fences and gates of exceptional quality. Agents wanted where not now represented.

The Banwell Hoxie Wire Fence Co., Ltd.
Dept. H. Winnipeg, Man. Hamilton, Ont.

DON'T RUN A COWS BOARDING HOUSE

But keep them at a profit,

An Ideal Green Feed SILO



makes the difference. It will double your income and halve your expense. Will pay you One Hundred per cent interest on the investment every year of its use. Built from lumber thoroughly treated with specially prepared wood preservative.



Manufactured in all sizes, and shipped complete. Free Catalogue on application.

The oldest company in Canada building Silos.

Canadian Dairy Supply Co., Limited
Montreal, Canada

WESTERN LAND FOR SALE

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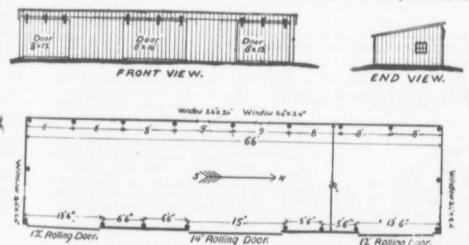
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During 1910 we sold over 133,400 acres; during the past four years we have sold over 400,000.



Plan of a Very Handy Implement Shed Having Corrugated Iron Roof

of farm machinery all going to the scrap heap at a rate that must delight the agents of the manufacturers. In all probability, Farm and Dairy readers care for their machinery in a more rational manner. A goodly number, however, have no special building in which to house farm implements. Spare room on the barn drive floors, empty mows, or chance space in the already over-crowded drive house, is depended upon to house the implements. Any of these are far from satisfactory, cause much inconvenience,

HORTICULTURE

Dominion Fruit Crop report

A. McNeill, Chief, Fruit Division.
No losses in Eastern Canada have been reported from winter killing, except in case of strawberries, and then only from limited areas. The losses reported have been less than for several years. For a number of winters, even when the conditions did not appear to be unfavorable, fairly serious losses from winter killing have been reported. This was accounted for by the injuries which the trees received during the cold series of winters from 1899 to 1904. Apparently normal condi-

been reported from Southern Ontario and British Columbia.

PEACHES

The outlook in Niagara district is good; the orchards have been well cared for and the weather conditions so far have been favorable. Peach growing is not progressing rapidly in Essex county, is actually declining in Kent, but many new orchards are being planted in Lambton. The crop prospects are only medium, though there are very few adverse reports from Lambton county. The British Columbia crop will be very light.

Cherries are showing well in all districts. Though the trees are beginning to bloom nicely in the commercial orchards of Ontario, it is too early to speak confidently of the "set" of fruit.

through the winter well. An exception can be made, perhaps, in the case of strawberries, but this exception applies to only limited areas. The lack of snow and the heavy frosts after the snow had disappeared in some cases seriously injured the strawberry crop.

SPRAYING

Perhaps the most noticeable feature in the reports of correspondents for this month, is their universal testimony to the prevalence of spraying. Everywhere orchardists appear to be impressed with the necessity of spraying; and spray pumps, Bordeaux mixture and lime sulphur mixture are being used this year where they never were before. It would be less remarkable if these reports came from one or two sections, but from Prince Edward Island to British Columbia, there is a universal revival in connection with combatting insects and fungus diseases.

Pruning.—While on a rented farm near Norwood some years ago, my landlord told me to cut down the three apple trees on the farm, since they were no good. I did not cut them down, but I pruned them, and the next fall when the landlord came to my place my wife gave him an apple. He asked where it came from and would not believe that it came from these apple trees he told me to destroy; it was necessary to take him out to the trees and show him the splendid crop of apples thereon before he would believe it, since before that time any apples they bore were like

little crabs.—John Elliott, Peterboro Co., Ont.

Nine new subscribers to Farm and Dairy will win you a pure bred pig.

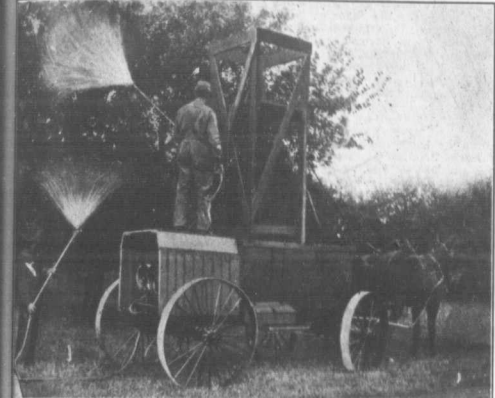
Vanco LEAD ARSENATE
To better, in any way, than any other spray for Worms, Coddling Moths, Pearls, Dips, Augustus Beetle and other leaf-eating insects.
VANCO spray makes other sprays better, does not burn the foliage, and always kills the insects. Contains guaranteed amount of Arsenic Oxide—of uniform strength and highest quality.

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One look on Spraying is One. Write for a copy.

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Larger, Faster Working Machinery is Becoming Popular in Orchard Work

The power sprayer is now considered indispensable by our larger orchardists. The smaller orchards, through cooperative ownership of spraying machinery, are also being given the advantage of thorough spraying by means of the faster, more efficient power machines.

tions have been restored, and Canadian orchards are again strong and vigorous.

APPLES

The prospects for bloom this year are excellent. It is too early to speak except as to the show in bud. The wood growth and bud development during the summer and fall of 1910 was excellent, and close observers predict an excellent show of blossoms, if there are no unfavorable conditions later in May.

PEARS

Pear trees are in good condition. In Niagara district they have begun to bloom and the showing is good. The frosts of the last few weeks have not injured them to any extent, and the wood growth of last season is fair. The British Columbia crop promises to be not more than an average one.

PLUMS

The commercial crop of plums this year will in all probability, be above the average, if no adverse conditions arise. The crop was rather short last year in many sections, but the trees are in good condition. The black knot, although still present, is not prevalent to the extent of former years, and the tender varieties are being gradually eliminated. It is possible that the Japan varieties may show up well this year, although slight injuries have

Grapes have wintered well. The wood of last year was well matured, and vigorous. Fortunately the buds were not far enough advanced to be injured by the recent frosts, and present indications look to at least an average crop.

SMALL FRUITS

Small fruits generally have come

Eggs for Hatching

Smooth Bronze Turkey, \$2.50 per 5,	15; Single Comb Black Minorca, \$2.00
\$3.50 per 9; Embden Goose, \$2.75 per 7;	
Rose Comb Brown Leghorns, \$1.50 per 15;	
Silver Grey Dorkings, \$2 per 15.	

J. H. RUTHERFORD, Box 62 Caledon East, Ont.

IRON AGE Combined No. 1 Double and Single Wheel Hoe

Not only does this tool do the work more easily and better than in the old way, but you can get over your ground more often, keep the weeds entirely and keep all of the moisture by constant rotation. You can open furrows, trim out the weeds and cultivate with the hoe, teeth, rakes, level the piece of ground, ridge your rows if necessary.

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The Frame is rigid and strong and will hold the gears in perfect alignment.
The Cutting Apparatus is made to cut all the grass close to the roots.
The Gearing is powerful, easy-running, and noiseless.
Roller Bearings and all superior appliances are used.
Built in three sizes—4 feet 6 inches, 5 feet, and 6 feet—all of light draft, so that two horses will handle any one with ease.

Hamilton's All Steel No. 4 Rake

This Rake is a most efficient and durable machine. The teeth can be adjusted to be carried tight to the ground or higher. The dump trip can also be adjusted so as to dump quicker for a fast walking horse or slower for a slow walking horse, thus always getting a clean windrow. The steel wheels are high and strong, and the teeth have low of gather. The wheels and dump rods are interchangeable, so that when worn at one end can be reversed. With ordinary care this rake will wear a life time.

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EGGS FOR HATCHING—From choice S. C. W. both sets; eggs \$1 for 15. Hugh McKeellar, Peterboro, Ont.

FARM MANAGEMENT

About Pasturing Alfalfa

Gen. F. Marsh, Grey Co., Ont.

Alfalfa has been proven to be the best pasture plant known in the west. Hogs pastured on alfalfa have made the money for the Kansas farmers; the best colts are raised on alfalfa pasture and little need be said as to the value of alfalfa pasture for dairy cows and for fattening lambs.

In the east the value of alfalfa for pasturing purposes is not so well known and there seems to be a prejudice against pasturing it. This prejudice is due chiefly to the fact that when pastured a large number of stock has been allowed to run over very small patches of alfalfa, which frequently resulted in injury to the stand of alfalfa.

IT WILL STAND PASTURING

Where a reasonable number of animals are placed on alfalfa it will stand as much pasturing as well if not better than any other forage plant. Last year I saw a plot of alfalfa sown on the fair ground at Troy, Pa., come through all right after 500 sheep had pastured on the ground the previous fall.

Last fall a 10 acre field of alfalfa that had been sown on fall wheat in the spring at Geneva, Pa., was pastured all fall by about 15 calves—with a wonderful effect on the growth of the calves, and no evil results on the alfalfa.

In Onandaga County, N.Y., where for every acre of timothy or red clover there are 12 of alfalfa, it is the custom to pasture instead of cutting the third time. It has been found that this does no harm if the ground is firm. In that district it is the custom to mix about one-quarter timothy with the alfalfa since then it is safer to pasture, and there is not the same danger of bloat.

MAKING IT SAFER

Joe Wing advises the sowing of bromo grass seed with alfalfa when it is to be grazed, with sheep or cattle, as being much safer. It is well known that such stock are liable to bloat when pasturing on rank alfalfa. As for myself, though I have never considered that alfalfa was any more dangerous than rank red clover, in connection with an alfalfa field that has partly run out and is well mixed with blue grass, I have never heard of any injury from bloat; cattle thrive on such pasture wonderfully.

Animals must not be permitted to graze alfalfa too closely. Cattle should never be turned on alfalfa while they are hungry; they should first be fed all they will eat of hay on ordinary pasture. Then once they are on the alfalfa, do not take them off the alfalfa. The common practice of putting cattle on alfalfa pasture for an hour or so each day at first, is the worst possible practice, as it brings the cattle on the alfalfa each day while hungry.

Alfalfa pasturing is much safer if it has made a considerable growth; it should almost have reached the bloom-

ing stage before turning on the cattle.

If there is no bluegrass or timothy grass with the alfalfa, it is a good practice to have a quantity of old hay, or even corn or cornstalks, in the field, as when on the fresh alfalfa pasture the animals crave something dry, and will eat a quantity of discarded fodder that they would not touch when on dry feed in the stable.

Note.—Joe Wing advises not to pasture alfalfa in the spring before it has reached near to the blooming time. This is a rule that, if observed, will immensely conserve the alfalfa and result in the least possible loss of animals as well.—Editor.

Alfalfa May Be Pastured

Alfalfa is widely grown in and has done much for the State of Nebraska. A recent bulletin entitled "Alfalfa Management," from their state experiment station at Lincoln, has the following to say about pasturing alfalfa: "An alfalfa field may be profitably pastured if proper precautions are taken. It is especially valuable for hogs, is good for horses, and if mixed with grasses can be safely pastured by cattle and sheep. Some farmers practice pasturing with cattle and sheep, an state that their losses from bloat are not great enough to offset the value of the pasture. If pasturing is attempted, great care should be taken to see that the cattle are not hungry when turned on the pasture and that they have a sufficient

supply of other forage available. The danger from bloat is always present. Alfalfa should never be pastured the first year, and should never be pastured heavily. It is better to pasture lightly enough to allow at least two cuttings to be made during the season, and better results can be secured if the normal number of cuttings are made. Stock should not be



AN INTERPROVINCIAL PRIZE DAIRY FARMS COMPETITION

Another dairy farms competition, similar to the one held so successfully during 1909 and 1910, will be held this year (1911) throughout Ontario and in the Beauharnois District, Quebec. The contest will be continued during 1912, and possibly during 1913, to decide the best dairy farms and farmers in the two provinces. The competition will be conducted by FARM AND DAIRY, of Peterboro, Ont., the only farm and dairy paper published in Canada, assisted by a committee of prominent farmers and dairymen.

FIFTY HANDSOME PRIZES

During 1911 Ontario will be divided into four districts, which with the Beauharnois District, Que., will make five districts in all. A special competition will be held in each district. Ten handsome prizes will be offered in each of these divisions or 50 in all. Next year (1912) it is proposed to hold a final or semi-final competition between the leading prize winning farms in each of these five districts to decide the best dairy farms in all these districts. A special prize will be offered for the best dairy farm in Ontario and another prize for the farm either in Quebec or Ontario that scores the most points in an inter-provincial contest.

In this year's contest (1911) the first five prize winning farms in the provincial contest held in Ontario during 1910, as well as the four farms that won the first prizes in their districts in 1909, will not be allowed to take part.

THE DISTRICTS

The five districts in which contests will be held this year (1911) will be approximately as follows:

DISTRICT No. 1.—The Beauharnois District, Que., comprising the counties of Beauharnois, Chateauguay and Huntingdon.

DISTRICT No. 2.—That portion of Eastern Ontario lying East of a line running North from Kingston.

DISTRICT No. 3.—The counties in Eastern Ontario between Kingston and Yonge St., Toronto.

DISTRICT No. 4.—Western Ontario, North of a line running from Hamilton to Goderich.

DISTRICT No. 5.—Western Ontario, South of a line running from Hamilton to Goderich.

For further particulars, entry forms, etc., write the Secretary of the Committee,

H. B. COWAN, FARM & DAIRY, PETERBORO, ONT.

These districts (except No. 1) are subject to revision after the entries have been received to facilitate the judging of the farms.

JUDGING THE FARMS, THE POINTS OFFERED

The farms will be judged in July, (1911), by two judges. Where competition is close for some of the leading prizes in any or all of the districts, the judges will have the privilege of visiting such farms again next winter, before making their final awards.

All departments of the farm will be included in the competition. A total of 1050 points will be offered, subdivided as follows:

House, 155, viz., plan, finish and approaches, 25, lawn 20, garden and orchard 35, arrangement of house 25, sanitation 15, ice and water supply 15, education, including books and periodicals, 30; total, 185.

Buildings, 175, viz., provision and size 25; location 25, condition 20, neatness 20, convenience 25, light and ventilation 25, water supply 25, yard, 10; total, 175.

Live stock, 210, number 40, quality and condition breeding 40, feeding 20, horses 30, swine 25, poultry 15; total, 210.

Crops, 215, viz., suitability for milk production 50, yields and condition 75, freedom from weeds 75, pastures and shade 15; total, 215.

Management, 140, viz., arrangement of fields 20, rotation 25, fences, gates, ditches and roads, 20, workmanship and neatness 25, preservation of manure 20, bookkeeping and records 20, summer water supply 10; total, 140.

Machinery 75, viz., supply 25, housing 20, condition of repair 20, character 10; total 75.

Permanent improvement 80, viz., public roads 10, freedom from obstacles 25, drainage 25, beautifying 20, total, 80. Grand total, 1050.

The farms in each district scoring the highest number of points will be awarded the prizes. During 1912 the prize winning farms this year will be allowed to compete in a final or semi-final competition to decide the best ten dairy farms in Ontario and in a special competition to determine the best dairy farm in Ontario and Quebec.

Remarkable Growth on Indifferent Soil
Tuesday, May 23rd, the editors of Farm and Dairy received the alfalfa plant her shows, through the mails from a Mr. G. F. Marsh, who for the summer is on his farm in Grey Co., Ont. This plant was taken from poor, lakelands soil, what has never produced a profitable crop of anything other than alfalfa. This plant grew near a creek where the water had washed away the soil. Photo by an editor of Farm and Dairy.

allowed to pasture immediately after cutting, unless there is a portion of the field that has not been cut. If the entire field has been cut and there is a large quantity of stock, the alfalfa will very often not grow rapidly enough to supply the required amount of feed and the plants will be injured.

Items of Interest

Mr. J. R. Dargavel, M.P.P., Eight Ont., wishing to encourage the most extensive growing of alfalfa in South Leeds, has donated \$500 to be given by the South Leeds Agricultural Society for the best three fields of alfalfa of not less than three acres each grown in 1912.

Wm. Whyte, vice-president of the C.P.R., Winnipeg, says the increase in acreage in crop in the West this spring is about 25 per cent. This gain is principally in Saskatchewan. It estimates the area in crop as follows: Saskatchewan, 6,000,000 acres; Alberta, 500,000 to 1,000,000; and Manitoba, 3,000,000.

The sixth National Dairy Show will be held in the International Live Stock Amphitheatre, Chicago, Illinois, Oct. 26-Nov. 4, and will be as yet the largest and the most attractive and comprehensive in the history of the Exposition. The plans of the association are to make it entirely educational in every department of the dairy industry at present, and to establish the annual exposition as the clearing house of the dairy industry in the United States, Mexico and Canada.

The use of dian farm 15 the price of ce such as to m hibitive for fa last few years larger scale able to purcha prices which ion of this m following stru built from ce Dwelling hou and troughs, stable foundat terns, well cu roughs, man tile, and so ament is bei dwelling hous walls, stable drain the Sh communities h ers to instal in the worki doing his own built from ot A piece of a



silos, and also farmers in the 5,000 concrete Ontario alone Another mac stalled by far

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Farmers Buying Concrete Machinery

Henry Pocock, Mgr. London Concrete Machinery Co.

The use of concrete on the Canadian farm 15 years ago was limited, the price of cement at that time being such as to make the use of it prohibitive for farm building. Within the last few years, on account of cement being manufactured in Canada on a larger scale, the farmer has been able to purchase cement at reasonable prices which has meant the introduction of this material on farms. The following structures are now being built from cement in many cases: Dwelling houses, silos, water tanks and troughs, dairy houses, barn and stable foundations and floors, cisterns, well curbing, fence posts, hog troughs, mangers, hens' nests, drain tile, and so forth. The largest amount is being used for building dwelling houses, silos, barns, stable walls, stable floorings and cement drain tile. Shortage of labor in rural communities has caused many farmers to install improved machinery for the working of concrete; the farmer doing his own work and taking contracts from other farmers.

A piece of apparatus that is being largely used by farmers for building concrete silos. There are now over 300 sets of the London adjustable silo curbs in use in Canada, over 100 of these having been purchased by farmers who build their own silos, and also build for other farmers in their community. Over 5,000 concrete silos have been built in Ontario alone with these curbs. Another machine that is being installed by farmers is the cement

drain tile machine. This machine is quite expensive, but many farmers owning a good gravel or sandpit consider it profitable to install a machine to manufacture drain tile for their own farms and supply the local markets. The cement tile business is one of the most profitable branches of the concrete industry. While a plant costs a considerable amount of money, it takes only a very short time for a plant to pay for itself.

One machine that has become very popular in Canada is known as the London Automatic Mixer No. 1, which sells at \$290, and weighs only 1,700 pounds. By the use of one of these machines the farmer can mix concrete at a cost of from 12c to 15c a yard, where with hand-mixing it costs from 50c to 75c a yard. Figuring it out on this basis the purchase of one of these machines is in most cases a good investment for the farmer. There are now over 300 of these concrete mixers in use throughout Canada, over 100 of which are used by farmers.

Queries re Concrete Block Silo
How much gravel and how much cement will I require to build a concrete block silo 35 feet high and 16 feet in diameter? Do the blocks need reinforcing with wire or iron? What kind of foundation should it have?—Subscriber.
A concrete silo 16 ft. in diameter, and 32 feet high, 8 inches thick

would require 39 yds. gravel and about 35 bbls. cement. It should be reinforced with 1/2 iron rods every third course of blocks. The foundation should be built 18 inches wide and 6 inches deep, projecting the same distance both inside and outside of wall.—London Concrete Machinery Co., Ltd., per John C. Doidge, Manager.

Milking Machines as Investments
(Concluded from page 7)

The value of the machines, for after a certain number of years the machines have to be renewed. We do not know how long a machine will last as they have only been on the market for a few years, but we can estimate that



they will last at least eight years, so we must charge yearly \$60 for depreciation. The expenses for repairs have been very low so far, and we do not expect that they will ever amount to much so that we can count altogether on a yearly expense of \$100 and this sum, together with the running expenses of the engine should be less than the cost of help in machine milking.

It is possible to run a gasoline engine of two horse power for less than \$3 a month, so that we have a yearly charge against the milking machine

of \$136. Besides other advantages, the milking machine, saves, in this case the labor of one man, and to pay \$136 for a man's labor is certainly a profitable exchange.

In this total cost of \$136 a year we have included everything that is connected with the initial outlay of \$500, and the milking machine itself, so that a farmer who has borrowed this \$500 will have paid off that debt, be sole owner of the machine, and have had all the time the benefit of that machine for the yearly expenditure of \$136 for eight years—an outlay that is more than paid back by the wages that are saved.

We have given the matter careful consideration, and would advise every farmer who has a herd of more than 30 cows to try the machine. We should advise him, however, to do the running himself. In course of time farm hands will know the handling of the machine.—J. Vanderleek.

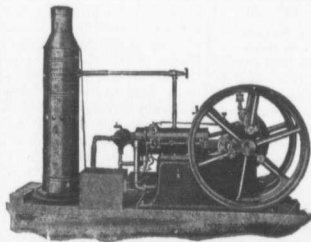
Alfalfa.—On Saturday morning, May 27th, the editors of Farm and Dairy received from Mr. Marsh, Grey Co., Ont., samples of one-year-old alfalfa plants, the tops of which already this season had grown to over 22 inches in length. Mr. Marsh also sent some plants of alfalfa grown from seed sown in his fall wheat last August. These latter measured from 10 to 12 inches in length of top. It would appear that one of the most successful ways to sow alfalfa will be with fall wheat sown during August.

The next annual meeting of the American Association of Farmers' Institute Workers, will be held at Columbus, Ohio, Nov. 13 to 15, 1911. At the same place and beginning Nov. 15, will be held the annual meeting of the Association of American Agricultural Colleges and Experiment Stations.



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AND RURAL HOME

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1. FARM AND DAIRY is published every Thursday. It is the organ of the British Columbia, Manitoba, Alberta and Western Ontario, and Bedford District, Quebec, Dairywomen's associations, and of the Canadian Holstein, Ayrshire, and Jersey Cattle Breeders' Associations.

2. SUBSCRIPTION PRICES for a year, strictly in advance. Great Britain, \$1.20 a year. For Canada, except Ontario and Great Britain, add 50c for postage. A year's subscription free for a club of two new subscribers.

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5. ADVERTISING RATES quoted on application. Copy received up to the Friday preceding the following week's issue.

6. WE INVITE READERS to write us on any agricultural topic. We are always pleased to receive practical articles.

CIRCULATION STATEMENT

The paid subscriptions to Farm and Dairy exceed \$500. The actual circulation of each issue, including copies of the paper sent outside the country but slightly in arrears, and sample copies, varies from 5000 to 7000 copies. No subscriptions are accepted at less than the full subscription rates. Thus our mailing lists do not contain any false circulation.

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

OUR PROTECTIVE POLICY

We want the readers of Farm and Dairy to feel that they can deal with our advertisers with our assurance of our advertisers' reliability. We try to admit to our columns only the most reliable advertisers. Should any of our advertisers be dissatisfied with the treatment he receives from any of our advertisements, he will investigate the circumstances fully. Should we find reason to believe that any of our advertisers are unreliable, even in the slightest degree, we will discontinue immediately the publication of their advertisements. Should our readers, on any warrant, will expose them through the columns of the paper. Thus we will not only protect our readers, but our reliable advertisers as well. In order to be entitled to the benefits of our Protective Policy, you need only to include in all letters to advertisers the words, "I saw your advertisement in Farm and Dairy." Complaints must be made to Farm and Dairy within one week from the date of any unsatisfactory advertisement, with proofs thereof, and within one month from the date that the advertisement appears in order to take advantage of the guarantee. We do not undertake to adjust trifling differences between readers and responsible advertisers.

FARM AND DAIRY

PETERBORO, ONT.

ELECTRICITY FOR FARM WORK

Not many years ago it would have seemed a far off cry to talk about farm houses in general being heated by electric radiators, bread toasted therein by electric toasters, the ironing done with an electric flat iron, the coffee prepared in an electric percolator, the cooking done with an electric cooking outfit and the house and barns illuminated at night with electric incandescent lamps.

All of these may shortly be actual facts in a goodly number of farms located within range of the Hydro-Electric transmission lines and services. Our readers may learn of the provision that has been made for supplying electric power to farmers by referring to an article on page two. Farm and Dairy is informed by the secretary of the commission, Mr. W. W. Pope, that already a number of townships, under the Act passed by the Ontario legislature last session, have applied for the power and steps

are being taken to furnish them with the power. Some of the rural municipalities that have applied for power under the recent Act are—Parkhill, Loean, Glencoe, Clarkburg, Cottam, Dublin, Dereham, Millbank, Mt. Salem, North Oxford, Otterville, Luther West, Moon, Rochester, South Dumfries, South Norwich, Smithville, including the Police villages of Baden, Mimico, Port Credit, and others, all of which are receiving attention and being enquired into with a view of ascertaining their several requirements, and upon such reports will depend the estimated cost of power to them.

The electric age on the farm has passed its dawn. It is safe to predict that before the end of the present decade we shall see wonderful developments in the use of electricity in the country. Ere long we will not consider it anything out of the ordinary to hear of electricity doing on the farm all the things enumerated in the first paragraph of this editorial, lighting farm buildings, running the farm machinery, and pumping the water for the family and the farm stock. Here's hoping for an early consummation of the vision!

NEXT—THE MOTOR TRUCK

The motor truck bids fair to fill many important places in various lines of agricultural endeavor. Articles published elsewhere in this issue will apprise Farm and Dairy readers of the trend of the times in regard to the motor truck.

On the creamery page we reproduce a photo showing a motor truck used in connection with the Brooklyn creamery. Judging from Mr. Peterson's experience the possibilities of the creamery business are about to be greatly enlarged following on the more general introduction of the fast-moving, distance-defying motor.

In the early future the motor truck will in all probability become a factor in delivering milk from those farms within reasonable distance of cities where now milk is delivered by express companies that take an exorbitant toll for their services.

The fruit growers near large consuming centres also will resort to the motor truck for delivering their produce. A number of growers near Clarkson, Ont., last summer, on being interviewed by an editor of Farm and Dairy, intimated that they were considering the motor truck as a means of lowering the cost of marketing and of retaining a greater percentage of the consumer's price, which they, the producers, ought to receive.

The practicability of the motor truck in meeting the needs of the fruit growers situated as are the Clarkson men, becomes evident when it is learned that growers at Clarkson can with a team and a spring democrat deliver a load of green corn, on-the-cob, in Toronto, a distance of 20 miles, and make from \$9 to \$10 on the trip, which amount would otherwise be the toll exacted by the express company.

In connection with the larger farms the motor truck will prove itself an

invaluable means of transportation on long and short trips and in general haulage work, of which there is an abundance though of a varying kind on such farms. The small tractor, illustrated on page five, which also may be used as a motor truck as shown in the illustration, may prove itself invaluable on even an ordinary 100-acre farm.

Verily the day of the motor and the motor truck is with us, and who would care to forecast with certainty the future of its usefulness covering even the next period of five years?

LARGE FARMS ARE INEVITABLE

Contrary to the history of agriculture the world over it would appear that Ontario farms, and perhaps the farms of the other older provinces, are destined to become larger rather than decrease in size as the country develops and agos. That tendency towards small acreage in individual farms, which has been true until very recently of all countries as they aged in their making, is being upset by the mechanical age in which we are now living.

Professor Bailey, of Cornell University, in a recent press interview, gave expression to the opinion that land acreage of farms in the future will increase rather than decrease. He believes that the small farm idea, now persistently proclaimed throughout the United States, and in this country, is the outgrowth of necessity born of European oppression and that the general adoption of this practice would reduce our farmers to the same class as the peasantry of Europe. According to Professor Bailey, every acre should be forced to yield its utmost capacity, as is required in "the small farm well tilled" idea, but in the future to get the best results the farmer must be a man of large affairs and of great business ability, and be able to superintend crop raising on a large scale in the same manner that an engineer superintends the construction of a modern sky-scraper. Farming is no longer a poor man's business, he declares; the farmer of the future will combine the qualities of capitalist and worker to attain success. Six hundred acres will support just as many people if it is owned by one man in a single piece as if it is owned by ten men, each owning and operating 60 acres, and the work of production will be facilitated by receiving direction from one common and capable head. Consequently, Professor Bailey maintains, the small farmer of the future will not be able to eke out even the most slender existence, but will be forced by conditions to work for the big farm owner.

This trend of the times may not be just to the liking of the rural economist, but notwithstanding the fact the ultimate general prevalence of larger farms appears to be inevitable. And the beginning has been made. New inventions—announced almost daily—for the purpose of saving hand labor and adding to man's efficiency, will help the movement along. Even now the equipment in the matter of farm machinery with the average pro-

gressive farmer must represent very considerable slice of capital. He cannot stand much more. With the coming of the automobile, the motor tractor, electric power on the farm, and more efficient tilling machinery, all of which have already been introduced, the man who would have them all and keep production within a reasonable cost must needs be a man of large affairs, owning or controlling land in large areas, else he cannot make these pay. The smaller general farmer, it would seem, will be squeezed out.

Soon our farm lands will be handled as business enterprises now are with capital and machinery. And it will all be for the best. The working out of this seeming tendency towards larger farms, as Professor Bailey claimed, need not be a bad thing for our agriculture, or for our people, although it will for ever put farming beyond being a poor man's business.

THE TARIFF ON FARM MACHINERY

Why should we farmers when we purchase farm implements be obliged to pay the cost of production, the manufacturer's profit, the wholesaler's profit, the retailer's profit, and on top of all that, the increased price that is made possible through the working of the protective tariff? Is it not time that manufacturers of agricultural implements were giving up the "infant industry" plea and start to stand on their own feet not only? Our Canadian manufacturers have demonstrated that in every other country in the world where agricultural implements are sold they can compete successfully with the manufacturers of other countries. In the home market, however, where they are near their customers and are protected by shorter hauls, the claim is made that they are unable to meet the competition of United States manufacturers without the protection of a tariff wall.

They tell us that it costs more to manufacture in Canada than in the United States. This plea can no longer be taken seriously. In a United States Government investigation into an implement concern in the United States, that has branches in Canada as well, one of the officials under oath stated that there was practically no difference in the cost of manufacture in the two countries. Why then should we continue to give our implement manufacturers (who have cheaper labor than have their competitors in the States, and who get their raw material practically free of duty) the privilege of adding 17½ per cent to the selling price that would be determined by free competition? And 17½ per cent, ad valorem is about 35 per cent. protection on the cost of production!

Our agricultural implement concerns are prosperous. They are paying much larger dividends on capital invested than are the farms of the country. One of the largest of our agricultural implement concerns has since its inauguration 20 years ago increased its output steadily from \$4,000,000 to \$16,000,000. The bal-

ance sheets of the fully guarded funds but it is paid in return at the rate of large sums have aside for future plant. This is industries!

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ance sheets of this company are carefully guarded from the eyes of outsiders but it is known that the dividends paid in recent years have been at the rate of eight per cent., while large sums have annually been laid aside for future improvements in the plant. This is one of our infant (?) industries!

The added cost of farm implements due to the workings of the tariff tears with undue weight upon us farmers. Protection is not needed to ensure the continuance of the industry. Among the demands of the farmers' deputation to Ottawa last December was free trade in agricultural implements. The proposed reciprocity agreement offers relief to the extent of two and a half per cent. We farmers are as strongly opposed as ever to the continuance of any duties on agricultural implements, and will not be satisfied until this injustice is removed.

The greatest good to the greatest number is the principle that is supposed to underlie all legislation.

This principle was lost **The Tariff** sight of when a duty on **Ditchers** of 17½ per cent. was placed on farm machinery—especially on traction ditchers. Tile drains in all fields where needed would mean millions of dollars even to Ontario alone. The future of underdrainage, due to scarcity of labor, rests with the traction ditcher. These machines are not made in Canada. In the United States they cost \$1,200 to \$1,400. To this cost must be added the freight charges and duty which brings the total cost up to \$1,800 to \$2,200. Just why about \$300 should be added to the cost of the ditcher by the import duty is hard to understand.

Healthy competition between farmers results in better farming. Speaking to an editor of Farm and Dairy recently one of the competitors in the **A Great Educator** last dairy farms competition said: "It took me a long time to decide to go into that competition, but I am glad that I did. When I started to look around me I found flaws in my farming that I had never noticed before. When the judges came around and compared my farm with other farms I found places where I could improve that I would never have found out in any other way." Judges employed by Farm and Dairy to judge the farms entered in the farms competitions are successful farmers of wide reputation. Their visit to a competing farm alone is worth what little trouble and expense the competitor may be put to in entering the competition. The farms are judged by a scale of points that takes in all sides of farming. Weakness in any one, two, or many points need not deter anyone from entering. The farms competition is a great educator, and you will be well repaid for entering your farm in the Farm and Dairy Interprovincial Prize Farms Competition this year. Enter it now!

Ormslow, Que., Spring Show
W. F. Stephen, *Huntingdon Co., Que.*

One year ago, Dr. D. McCachran, Robert Ness, and other of the leading stockmen in the district of Beauharnois, situated in the western end of the province of Quebec, promoted a spring show. There were misgivings as to whether it would be a success or not. The second annual show was held at the village of Ormslow on May 22, 24, and 25, and was as far ahead of last year's show as it was ahead of the most sanguine expectations of its promoters. Dr. A. McComick, the capable secretary, had the show well in hand, and was ably backed up by his assistants, D. J. Greig and A. S. Cunningham looking after horse interests, and Neil Sanger and R. R. Ness had the cattle entry in charge.

The entries nearly doubled those of last year, there being 345 entries of horses, cattle 315, sheep 90, swine 45, and poultry 190. A number of the horses were stabled in the village, the balance in a tent fitted for the occasion. The 315 cattle were all housed in one large tent, and the beautiful white Ayrshires contrasted nicely with the choice lot of black and whites and the few Jerseys. The sheep and poultry occupied a tent together, and the swine one by themselves.

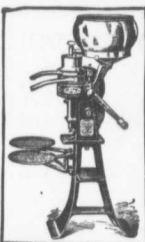
The display of live stock was the admiration of all. Many visitors were surprised to find such a grand array of choice home-bred and imported animals. Not the least admirer was the Minister of Agriculture for the province, Hon. J. E. Carson, who was delighted, on this his first visit to this part of the country, to see such a beautiful lot of live stock. The stock was all shown by farmers—no professional stockmen had animals on exhibit. Seventy-five per cent. of the stock was owned by farmers living in Chateauguay Co.

In horses, Clydesdales made the strongest showing, and were exhibited by Robert Ness & Sons, Howick; Dr. D. McCachran Ormslow; D. J. Greig, and Nussey Bros., Bryanville; Taylor Bros., Dewetville; F. Cowan and D. Pringle, Huntingdon; Geo. Whites, Whites; Geo. Stewart and T. Irving, Howick; and many others. Ness & Sons won on aged stallion with Sir Spencer almost a model, and one of the finest horses that ever came into the district. Geo. Stewart won first in the three-year-olds with a good class horse, Royal Derwent. The young horse classes were all well filled with good things. In draught teams, R. R. Ness won first with a grand pair; one by Sir Spencer fashioned after the old horse. The light draught teams were a fine lot as was the cart horse class, with 11 entries. The two and three year old fillies made a very creditable showing.

The carriage horse classes were all well filled—from six to 17 entries in each class. Dr. J. Greig, Nussey Bros., D. McCaig, J. R. McCaig, and A. S. Cunningham were the leading exhibitors. The showing was largely done in the large skating rink, and it was usually filled with spectators.

DAIRY CATTLE
The cattle exhibit was the best ever held in the district. Ayrshires led with 175 head, shown by R. B. Ness, H. Gordon, J. W. Logan, P. D. McArthur, J. P. Cavers, R. M. Howland, Wm. Brown, John Brown, Jas. McKill, D. T. Ness, W. T. Stewart, Geo. Finlayson, Wm. Hay, D. McKill, Chester Orr, Robt. Kerr, McNaughton Bros., G. Muir, C. Moe, in point of numbers in the order named. All the classes were well filled and contained from 6 to 18 entries in each class. Judge Wm. Drummond, of Ottawa, proved equal to the occasion, and many of his decisions were made on fine points.

In aged bulls, awards were: 1, (Continued on page 16.)



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Creamery Department

Butter makers are invited to send contributions to this department, to ask questions on matters relating to butter making, and to suggest new ideas for discussion. Address letters to Creamery Department.

Cream Hauling By Motor Truck

E. E. Patterson, Ontario Co., Ont. The motor truck that we have been using for collecting cream is very satisfactory, since economical cream hauling is a big factor in the success of a creamery. Of late years we have been forced to pay such exorbitant rates to express companies, where cream is shipped by rail, and horses



A Creamery Man Uses this Motor Truck to Great Advantage. Mr. E. E. Patterson, of Ontario Co., Ont., is here shown as he is leaving on a 37 mile cream route. He makes this trip in four hours, collecting six cans of cream from 27 patrons. Read of Mr. Patterson's experience with the motor truck as he tells it in an adjoining article.

and men being so expensive, some other system, like that of the motor truck, for collecting cream is necessary as it is impossible to raise the price of manufacturing.

It is a factor of importance to get the cream collected in good condition, and this depends largely on the cream haulers. Before starting to haul our cream with the motor truck, we hired men with horses. This was an expensive method in our part of the country, where farmers are raising beef cattle, and dairying is not carried on extensively. On some of our routes the hauler would leave the factory at six in the morning and would not be back until six in the evening. The first cream collected, therefore, was carried on the wagon all day. With our motor truck we can run these same trips in from four to four and a half hours. The cream is brought to the factory in much better condition than formerly and in place of two or three men with teams, one man will do the work.

We have added 50 new patrons to our list since starting to gather cream with the motor truck. The great majority of these we would never have been able to get with horses, as some of our routes are nearly 50 miles long. We can, however, cover these long routes in half a day.

Electricity in the Creamery

A. Juby, Peterboro Co., Ont. We are using electricity for lighting and power in the Peterboro creamery for the first time this season. Electricity is most advantageous for lighting. In the short days of winter, particularly, electric light comes in very handy.

Electric power is more convenient and cheaper than is steam. Of course we still use the steam for heating but it is not necessary to keep up pressure for churning. When we were using steam for both heating and power our coal bill for the year was \$900. One hundred dollars pays the coal bill now. The electric power costs us \$100, which means a sav-

ing of \$100 on the whole cost of power and heating. The light costs \$1.00 a month.

Electricity is always ready to do the work for you. At any minute of the day it is just a case of turning on the current and going ahead, and it is far cleaner than a steam engine.

The small dynamo takes up practically no room and there is no coal dust in connection with it. We use our 5 h.p. dynamo to run the machinery of both our creamery and ice cream plant and it does the work just as easy or easier than did our eight h. p. steam engine.

Ormatown, Que., Spring Show

(Continued from page 15.) McArthur on Netherhall Milkman; 2,



Ness, Morton Mains Sensus; 3, Logan, Netherhall Good Time; 4, McNaughton Bros. The two-year-olds made a fine class, 1st place going to Gordon's splendid Auchenbrair His Eminence; 2, Hay on Netherhall Douglas; 3, Ness, Morton Mains Arameth; and 4, Howden on a Monkland bull. Seventeen yearlings faced the judge. The junior classes were all well filled.

In aged cows 14 lined up, all good ones, showing vigor of constitution, true type, and good udder and teat development. The Ayrshire fault—short teats—was not conspicuous here. Gordon's beautiful Southwick Mez won 1st, closely run by Ness with Nellie Burns 5th; 3, Ness, Barcheskie Lucy Girl; 4, Gordon, Barcheskie Sybil 4th; and 5, Ness, with Silvan Bell.

Three-year-olds—1, Ness, Barcheskie Lily; 2, Logan; 3, McArthur.

Two-year-olds—1, Gordon; 2, Ness; 3, G. Brown; 4, McKill. All the younger classes contained from 12 to 20 in each, and decisions were close.

The dry cow class was the admiration of the ringsiders, 16 lining up, all of good type and beautiful form: 1, Gordon, Whitehall Duchess; 2 and 3, Ness, Glenshanroek Cauty and Nellie Burns; 4, Gordon, Southwick Kirsty; 5, Ness, Orange Blossom.

In the grade Ayrshire class, about 30 were led in the ring. Hector Gordon won the T. Drysdale prize for best dairy cow with his Ayrshire grade, aged all breeds.

Aged heids—Gordon, Ness, McArthur, Logan. Young heids—Ness, McArthur, Gordon, Logan.

HOLSTEINS

About 130 Holsteins were out, Neil Sangster leading with 34 head. The ribbons were placed satisfactorily by Prof. H. Barton, of Macdonald College. The classes were all well filled, and decisions close. Exhibitors were: W. T. Rice, John McRae, Geo. Winter, J. S. Rutherford, E. Crutchfield, M. M. McNaughton, Alex. Townie, T. Rutherford, H. Elliot, J. J. Alex-

ander, Geo. McBain, R. English, and others.

The aged bull of W. S. Rice was an easy winner, a bull of grand character. He is of the Dot Sultan breeding; 2, McEwan; 3, Crutchfield. Two year-olds—Sangster was 1st with a milky bull, Pleasant Hill Pontiac. Among the young classes were noticed a lot of lusty youngsters.

Sangster carried the three prizes in aged cows with a cow of Pauline De Kol breeding, Verona and Rhobus Queen; 4, Cowan; 5, Crutchfield.

The heifer classes were well filled. Here some would have stood a little more feed, and had to step down as a result. About 30 Holstein grades were shown. All did not get first prize, but many were worthy of it.

Dr. McEachran showed a few bunches of Jerseys, augmented by a few individual exhibits.

In sheep, Leicester's were shown by J. Purrell and D. Pringle, Huntingdon; D. Baxter, J. Bryson, D. Lamb and D. T. Ness. Purrell won most of the firsts, with Pringle a close 2nd. Shropshires were shown by Jas. Davidson and A. Hunter; Oxford Downs and Dorset Horned by Mr. Kerr.

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Makers are invited to this department to make suggestions, to suggest publications, and to let their letters to the Editor.

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The Upward Look

Where Success Lies

No. 10.

There is only one condition under which we may expect to attain worldly success in any line of human endeavor without danger of being improved and spiritually enriched in consequence. That is that we shall love God with our whole heart and mind and soul and strength and our neighbor as ourselves. One of God's greatest laws is that we become like whatever we contemplate and most desire. If we love God earnestly and long to possess His divine attributes, we are led to pray for Him for the great prize "we all, with open face beholding as in a glass the glory ("character") of the Lord are changed into the same image from glory ("a poor character") to glory ("a better character") even as by the spirit of the Lord." (I. Corinthians ii:18.) For that reason we are warned not to be "conformed to the world"—that is, the temporal things of this world—"but be ye transformed by the renewing of your mind" (every time we pray from our heart to God we renew our minds) "that ye may prove what is that good and acceptable and perfect will of God." (Romans xii:2.)

"It is a great law of our being," writes Ralph Waldo Trine, "that we become like those things we contemplate. If we contemplate those things that are true and noble and elevating, we grow in the likeness of these. If we contemplate merely material things as gold or silver or copper or iron, our souls, our natures and even our faces, become like them, hard and flinty, robbed of their finer and better and grander qualities. Call to mind the person or picture of the miser, and you will quickly see that this is true. Merely nature's great law. He thought he was going to be a master; he finds himself the slave. Instead of possessing his wealth, his wealth possesses him. Have as your object the accumulation of great wealth, if you choose; but bear in mind that, unless you are able to get beyond self, it will make you not great, but small, and you will rob life of the finer and better things in it."

That is why Christ never encouraged those who would be His followers to look after earthly rewards. He knew that the man who centred his thoughts on the accumulation of wealth or the gaining of honor or power, would by a very law of his nature think less and less about God. In order that we might make no mistake, He told us plainly, "No man can serve two masters; for either he will hate the one and love the other; or he will hold to one and despise the other. Ye cannot serve God and mammon." (St. Matthew vi:24.)

This does not mean that we cannot be sincere Christians and hold most of our riches. Far from it. I venture to say that God would be glad to let us all have wealth if He saw that our souls could withstand the great temptations that come with it to pamper our own pleasures and to give ourselves up to selfish pursuits. "How hardly shall they that have riches enter into the kingdom of God," (St. Luke xviii:24.) He deserves and demands that we shall love Him first and most, that we shall recognize that He only is the giver of every good and every perfect gift. (James i:16-17.) and that all that we have we hold in trust for Him. He expects us to every be willing to give Him back everything we have the instant He may ask for it, knowing that should He ask for it He purposes giving us something infinitely better in its stead. He desires us to be able to say like Paul, "I have learned in whatsoever state I am therewith to be content. I know

both how to be abased, and I know how to abound everywhere and in all things. I am instructed both to be full and to be hungry, both to abound and to suffer need. I can do all things through Christ which strengtheneth me." (Philippians iv:11-13.)

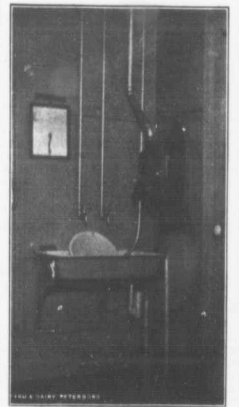
The only way in which we can be truly successful is to always and ever do God's will. If it is His will that we shall attain to wealth we must continue humble, and simple and diligent in serving Him. If it is His will that we shall continue in poverty and obscurity, we must learn to say gladly, "It will be done." With Adele Proctor we must be willing to say:

"I do not ask, O Lord, that life may be
A pleasant road;
I do not ask that Thou wouldst take
from me
Aught of its load.

"I do not ask that flowers shall always
spring
Beneath my feet,
know too well the poison and the
sting
Of things too sweet.

"For one thing only, Lord, dear Lord,
I plead,
Lead me aright,
Though strength should falter and
though heart should bleed,
Through peace to light."
—I.H.N.

A Back-Saver on Scrub Day
Mrs. E. C. Smith, Peal Co., Ont.
Why do we women folks continue
in the old back-breaking method of



One Big Step in Labor Saving

There is another step soon to be taken on the farm and in the household—that of putting the water into the house from an arsean well at the barn by gasoline engine power. Photo taken by an editor of Farm and Dairy in the kitchen of the farm home of H. E. Nixon, Brant Co., Ont.

getting down on our knees to scrub the floor? I know just how most of us dread this most tiring of household work. And it is not the least bit necessary to scrub in this manner as proper tools have been invented to do the work without getting on our knees at all.

Two years ago an agent called at our home with a patent brush, mop and mop wringer, for which he wanted to charge us, I think, about \$6 or \$7. My husband was very much opposed to spending so much money on tools to do work, which he said his mother had always been able to do with a 25 cent brush. I just reminded him that his father had been in the

habit of cutting hay with a \$1.76 scythe, while he, my husband, considered that a \$50 mower was an absolute essential. The fact that his binder had cost \$125 I also brought to his attention, and it started him thinking along the right line, and presently the agent went away with a satisfied smile; his satisfaction has been shared all round ever since.

The brush is made with a long handle. When the floor is thoroughly brushed, the brush is turned over and on the other side is a straight rubber band that soaks up the water into a reservoir on the back of the brush. From this it can be emptied

into a pail. The floor can be made quite dry with this rubber, and the mop is then brought into play to complete the drying. My mop wringer, which is attached to the side of the bucket, consists of two pieces of board which are pressed together on the mop by means of a lever. This is certainly a great improvement on the old method of wringing out the cloth by hand.

Of course, I am not going to say that scrubbing day is yet a pleasure, but it is at least not dreaded as it was when my equipment consisted of the hand mop, scrubbing brush, and a pail of water.

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LADIES' ONE PIECE DRESS

This is our exclusive design. One of the most beautiful lingerie dresses brought out for the spring and summer season of 1911. Great care having been taken in the selection of material, it is made from a very fine French Lawn and comes in white only.

The lawn is fine and lustrous, a quality found only in the highest priced lingerie dresses. The waist is formed in a very neat fashion of pin tucks. Valen iennes, as well as a small panel of Swiss embroidery, sleeves and back trimmed and finished the same, with edging of Valenciennes lace on cuffs and collar.

The waistband is formed with five rows of pin tucks with Valenciennes lace top of pin tucks and under. From the waistline the skirt is made in nine gores below the waistband to the flounce. This insures a perfect fitting skirt over the hips, giving a soft, clinging effect to the upper part of the skirt. Above the row of Val. insertion, which divides the top part of skirt from the flounce are five rows of pin tucks, and at the bottom of flounce there are eight rows of wide tucks 3/4 inch each.

There is a character about this neat dress that will distinguish it from the gaudy low priced garments so deceiving in many illustrations. The illustration showing this model is perfect and truthful, and can be placed in the class that will only be found in the most exclusive wearing apparel stores of New York and Paris.

Note the sizes. White only.

PRICE **\$3.25** Postpaid

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36 McGill College Ave. MONTREAL, QUE.



CAPABLE OLD COUNTRY DOMESTICS

carefully selected, arriving every Monday. Apply now, The Guild, 71 Drummond St., Montreal, or 14 Grenville St., Toronto.

Women and the Dominion Grange

Miss Kate McKay, Ceres Dominion Grange

The question has been asked, what part can women take in the Grange and of what benefit may the Grange be to them? My answer is, the Grange is an Agricultural Educational Organization. Any woman interested in farm work should have no hesitation in joining the Grange. She may exert an influence that will greatly help in elevating the stand-

dard of country life. She can by regular attendance encourage and strengthen the hands of the officers and can assist in preparing the programme. And the many woman can come to the Grange prepared to take part in it, or listen intelligently, while others discuss important questions. She can give an occasional social night, with refreshments and a cheery impromptu programme. The possibilities of the Grange for a woman are limited only by the ability of the woman.

There are many advantages to be gained from being a member of the Grange. Through it we become better acquainted with our neighbors and by discussing topics of mutual interest we are mutually benefited. The Grange meeting affords a pleasant break in the week and anxiously we await our meeting night. In the Grange there is a frank good fellowship to be found in no other place. There is no time for gossip or scandal—we are Sisters and Brothers, in deed and truth.

It is surprising the talent we find in the Grange where little or none was expected; those that a short time since were afraid of the sound of their own voice have learned to speak and to speak to the point.

At our meetings our minds are refreshed and our hearts are warmed and we can truly say, it is good to have been here.

As much to blame as the marriageable women? Might not our marriageable women be actuated by motives less sacred than "Rob Roy" imputes to them? I think not.

There are many reasons why our country girls desire to learn a trade, or profession, and I think the writer in question is very far astray when he suggests that the most part of it is prompted by the mercenary spirit which prompts that desire. I know and have known good many professional girls and not once have I known them to choose their profession simply for the money there was in it. Some have been prompted by one ambition to become a star in their particular profession; others have wished to help father and mother; still others have only had a desire to be independent.

As a rule our girls do not want to be dependent upon father for all time, nor yet be forced to take the "first chance" that comes along for fear they never have another one, and so they train for nurse, teacher or milliner as suits their fancy.

It is my venture to say that if questioned, nine out of ten of those girls referred to by our friend, "Rob Roy" would own up to a desire for a home of their own, with a Rightman, as partner, but not Mr. Wrongman.

According to the writer's way of thinking, the difficulty lies right here. Our girls have their ideals. The mothers love and marry much like such and such traits of character, and as long as that ideal is not above reach of mortal man, who shall say they are not justified in remaining true to that ideal. All honor to them I say for wishing to prepare themselves to battle with life alone, rather than with one for whom they have not the deepest and sincerest respect. For without the truest love and respect, marriage is not at all ideal. It becomes merely a matter of bargain and sale.

If our young men want our best girls let them study to attain the standard set by those girls—Cousin Ivan.

HELPS IN WASHING

Pinning clothes systematically on the line is simple and convenient but requires a little care and forethought. When rinsing the clothes, method and order solve the problem of every thrifty woman's work. Clothes neatly and systematically pinned on the line is a feature of beauty which attracts the eye of every orderly woman. Sheets and pillow cases pinned in rotation come first and next in order come the table linen and all towels in connection with the household garments the same. There is certainly something attractive when clothes are well arranged on a line gentlemen's and ladies' wear separate. This is in keeping with a well-ordered household.—"Country Girl."



There is no need to dip the cover of your COXNER BALL BEARING WAREHOUSE into dripping water on the kitchen floor, because it is light and when open the water drips back into the tub to rear the clothes and take up the room.

Made of Cypress Lumber and built to last a life time. Easy to work. Runs on Ball Bearings and will wash anything from handkerchiefs to blankets.

Why should you struggle on in the same old way, when you can do it in half the time and with less trouble by using a Connor Ball Bearing Washer.

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OTTAWA, ONT. Limited

YOUR HOUSE!

We want to help you to make it bright and prettier. Let us tell you how. The greatest beautifier and preserver for house and home is paint. We mean

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You should learn all about these great paints, how they are brightened, how easy they are to use, how good, how easy, how cheap, comparing quality with the others. We shall send you the prettiest and most useful Booklet ever issued, telling you all about painting your house. If you will write us for Booklet ABCDE. You should have a copy. It is free.

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CLOTHES, to fit perfectly, MUST be made to measure. The old-fashioned, ready-made Clothes are made to fit AVERAGE types, not ideal men. That's why they don't fit YOU. PAQUET Guaranteed Clothes are NOT ready-made. They are cut to your exact measurements BEFORE they are made up. Our new method makes this possible. It is the most perfect method of Clothes making yet devised.

PAQUET Guaranteed Clothes give you all the advantages of Custom Tailoring at HALF the expense. The materials used are of the highest grade procurable. They are sold direct to YOU at wholesale prices, and are GUARANTEED to be the best value in Canada today from \$10.00 to \$15.00—worth \$13.50 to \$20.00.

The most highly-trained experts only are engaged in the production of PAQUET Guaranteed Clothes.

THE SUIT ILLUSTRATED

is made from absolutely PURE WOOL, navy or black serge, best Indigo Dye, thoroughly shrank and absolutely guaranteed to keep its color. The workmanship is unequaled in this Country. The pockets are made according to our special process and will neither sag nor get out of shape. The real value is \$15.50. Our Special Price, PAID TO YOU, is only \$10.00. Sizes 36 to 44 only. Larger sizes 75c. per size extra.

\$10

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illustrating New York's latest models, and samples of the very newest materials for the present season. This book also contains our special self-measurement chart, which is so simple and concise that anyone using it is absolutely certain to be fitted PERFECTLY.

Write NOW! Don't put it off until another time—a postcard will do—you'll get the Style Book by return mail.

THE PAQUET COMPANY LIMITED
QUEBEC CANADA

OUR HOME CLUB

THE PASTOR'S VIEWS ON RECIPROCIETY

A good many people who are responsible for the maintenance of homes are just now interested in the question of how the proposed reciprocity deal with the States will affect the prices of food stuffs. At present it is not an easy solution, as opinions vary. Some hold that if the proposal is adopted, the cost of living will be increased by a proportion amount, as cheese, butter, eggs, live stock and wheat will pass over to the American market, thus leaving less for the home market, and increasing values correspondingly. On the other hand some stoutly maintain that it is by no means certain that if the products are sent across the line it will enhance prices of what remain to Canadian consumers, and that we shall be able to get home, fruit, potatoes and other vegetables from the States much earlier than we can produce them, owing to their more southerly latitude, and the presence of these will lower prices of the native products when they are put on the market later.

This practical issue aside, however, most of the heads of Canadian homes will be found in accord with the principle of free trade, of which the present proposal of free trade in natural products is an instalment. The very widespread desire for this has been brought about by the greed of our manufacturers. Not content with the large profits they were enabled to make under the protective tariff, they have formed combines in nearly every line of manufactured goods in the country. I am stating a matter of fact in saying that oatmeal, salt, flour, bacon, rubber and cotton goods, paper, biscuits, canned goods, coal, oil, cement, are in the hands of commercial combinations, who exact every cent possible from the consumers of these necessities of life.—"The Pastor."

COUSIN IVAN'S VIEW

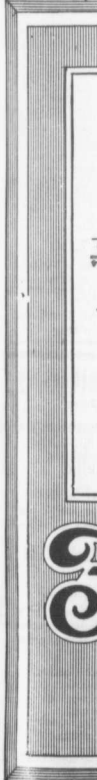
Surely "Rob Roy" was not sincere in his denunciations of the Canadian country girl in the issue of January 20th! Surely he is not so manifestly unfair as to look at the question from one viewpoint only! If so, I would hate to be Mrs. "Rob Roy." Might not the marriageable men be



Our Day

It will likely be for us boys of electric power, labor-saving machinery, the cartoon here forget the fact, derful progress some parts of the pasting about the farmer's idea and before the sun out into the it will probably occur every day, such as are the cartoon, being progressive farms power being agency of the Commission.

Once we have farm it will be strong factor in girls on the farm but few of us but we do not and have only a Much of the m on many farms much more inter





Our Day of Electricity

It will likely be some time yet before we boys on the farm will, by electric power, be running all of the labor-saving machines, illustrated in the cartoon herewith. We must not forget the fact, however, that wonderful progress has been made in some parts of Western Ontario during the past year towards bringing about the consumption of the farmer's ideal power—electricity, and before the boys of to-morrow bloom into the men of to-morrow it will probably be a commonplace, everyday occurrence to have machines such as are graphically depicted in the cartoon, being run on many progressive farms by electricity, the power being supplied through the agency of the Hydro-Electric Power Commission.

Once we have electricity on the farm it will contribute as another strong factor in keeping us boys and girls on the farm. As a rule there are but few of us who dislike hard work, but we do not like to work long days and have only a little to show for it. Much of the machinery to be found on many farms make the farm life much more interesting than it used

to be, and everywhere we begin to see that a farm is really a great big factory with mechanical possibilities as great as big plants in the manu-

facturing cities. In such a comparison the farm must come out ahead when it comes to choosing one or the other, since on the farm we have the

pure air to breathe, pure water, pure food and independence.

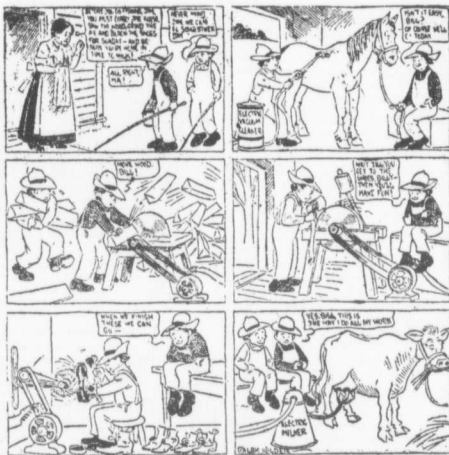
When electricity comes into use on our farms the transformation caused in many farm homes will be quite wonderful and the girls will find a new interest in the farm home. With a small electric motor and the electric current to drive it the washing machine, the sewing machine, the cream separator, churn and the ice-cream freezer and also the vacuum cleaner may all be run by this new power; and then there will be no more coal-oil lamps to clean since the incandescent electric lights, so much superior, will come into common use and no one with electricity available would want to use oil lamps.

Before too Late

The tender words unspoken,
The letters never sent,
The long-forgotten messages,
The wealth of love unspent—
For these some hearts are breaking
For these some loved ones wait;
So show them that you care for them
Before it is too late.

Of Course?

"Uncle John," said little Emily, "do you know that a baby that was fed on elephant's milk gained twenty pounds in a week?"
"Nonsense! Impossible!" exclaimed Uncle John. "Whose baby was it?"
"It was the elephant's baby," replied little Emily.



Ah Boys! Just Wait Till We Get Electricity on the Farm



Dainty, Disappearing Doughnuts.
Devoured near as fast as you make 'em.

Golden—tooth-teasing—able-bodied nuts of dough.
Made from dough that *Tastes Like Nuts*, you know.

Use **FIVE ROSES** flour.
Get that *individual toothsome*ness of *Manitoba* wheat kernels.
Doughnuts with a *Palate-Pleasing Personality*.
See 'em bob up in the rich deep fat—swelling, soft-textured.

A hole entirely circled with *Light Digestible Food*.
Fat without being fat—for **FIVE ROSES** is the sturdy *glutinous* flour that *resists* fat absorption.
Just enough to *brown* deliciously, to *crisp* quickly.
No greasiness, heaviness, sogginess.
Filling a vacant place so pleasantly with never an *outraged* stomach.
Like these make **YOURS**.
Use **FIVE ROSES**.

Five Roses Flour

Not Bleached



Not Blended

THE LOVE OF OATS

Why Normal, Active People Always Crave Oatmeal

Oats contain more body-building food than any other grain that grows. They contain more energy-giving food. You know their effect on horses.

Oats contain more organic phosphorus than any other grain, and phosphorus is the brain's main constituent. They contain more lecithin, and lecithin is the chief component of the entire nervous system.

That's why workers love oatmeal. That's why growing children crave it. It is simply the call of nature for what bodies, brains and nerves require.

But some oatmeal fails to meet these requirements. Only the richest, plumpest oats supply a food worth while. The choicest oats are sifted 62 times to get the grains for Quaker Oats. Only ten pounds are secured from a bushel. But these fine oats, when prepared by the Quaker process, supply the utmost in oatmeal.

Oatmeal is the most important food of infants and the best costs only one-half cent per dish. Don't supply your table with inferior oats.

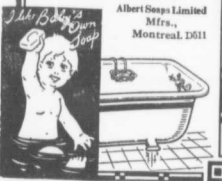
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Baby's Own Soap

Made of specially purified and refined vegetables oils. It will not hurt the most delicate skin. Refuse all substitutes.

Albert Heaps Limited
Mrs. J. Montreal, D.O.I.



PLEASURE AND COMFORT

are derived from the

Stratford Lawn Swing

For the children in the summer there is nothing will give them more pleasure than a lawn swing. For adults, a swing on the lawn provides a means of comfort and rest.



This swing is made of well seasoned hard wood lumber, nicely finished. It is made strong and durable, will stand great strain, is built for four passengers. The back can be adjusted and the foot rest raised so as to form a hammock or bed. Made in various styles at different prices.

Write today for illustrated catalogue M.

THE STRATFORD MFG. CO., LTD
STRATFORD, ONTARIO

We also make all kinds of Ladders and Verandah and Lawn Furniture.

Home Improvement

Mrs. L. K. Shaw, Welland Co., Ont.

There is alluring beauty in a well kept lawn. When I go to the city and see the care that city people take of their little 10 by 10 lawns, it seems to me that surely the average farmer ought to invest in a lawn mower for his lawn, which is 10 times as large and can be made ever so much more attractive.

A few years ago we paid \$8 for a lawn mower, and its work, although often hard in real time to do, has been a great source of satisfaction to us. At first we used it on the lawn while the lawn was in a rough condition. It made such an improvement in the appearance of our home that we immediately started to make greater improvements. We levelled in the hollows, laid out walks, and eventually we were planting shrubs. We trace all this improvement to that \$8 invested in the lawn mower. The satisfaction that we get out of the lawn in summer afternoons and evenings is well worth the work it takes to keep it in order, and my husband says that the lawn has added immensely to the value of the farm.

We are told that city people live more out of doors than do country people, that the country woman is really in the house more than her city cousin. I believe this is because there is really nothing in the surroundings of so many farmhouses to induce the woman to go out of doors. Had we attractive lawns there would be more inducement for us to spend more of our time outside and the health in country homes would be much improved.

THE COOK'S CORNER

Recipes for publication are requested. Enquiries regarding cooking, recipes, etc., should be sent by registered mail to the Household Editor, Farm and Dairy, Peterborough, Ont.

PINEAPPLE JAM

Grate your pineapple; to one pound of the apple add three-fourths of a pound of loaf sugar; boil ten minutes.

CHOCOLATE PUFFS

One pound sugar sifted, one cup of chocolate chopped very fine; mix together; beat the white of an egg, and stir in your chocolate and sugar; continue to beat until stiff paste; sugar your paper, drop them on it, and bake in a slow oven.

COCONUT PIE

One and one-half pints of milk, six eggs, one cup of sugar, three cups of sugar, one-half cup of butter; mix sugar and butter, then the eggs, then the cocoanut, and lastly the milk.

LEMON PARTS

Mix well together the juice and grated rind of two lemons, two cups of sugar, two eggs, and the crumbs of sponge cake; beat it altogether until smooth; put into twelve patty pans, lined with puff paste, and bake until the crust is done.

RHUBARB JAM

Cut into pieces an inch long, put a pound of syrup to every pound of rhubarb, and leave till morning; pour syrup from it and boil it till thickens; then add the rhubarb and boil eight to fifteen minutes; put up as you do currant jelly in tumblers; it will keep good a year.

To make bread and pastry take on a beautiful brown without overroasting, burn a little sugar on the bottom of oven on baking day. I discovered this in baking, after the juice from berry pies had burned.

Don't salt meat before the cooking. Add it after the meat is cooked, or when nearly done.

The Sewing Room

Patterns 10 cents each. Order by number and size. If for children, give age; for adults, give bust measure for waists, and waist measure for skirts. Address all orders to the Pattern Department.

SIX GORED SKIRT FOR MISSES AND SMALL WOMEN, 7?7



The six gored skirt is one much liked. It is smart, it is simple, and it is very generally becoming. This one is designed for young girls and for small women.

The 16 year size requires 5 yards of material 27 inches wide, 3/4 yards 36 or 2 1/2 yards 44 inches wide.

This pattern is cut in sizes for misses of 14, 16, and 18 years of age.

FIVE GORED SKIRT, 7018



The five gored skirt always is a useful one. This one allows of many possibilities. In the illustration, it is finished at the natural waist line and closed at the left of the front, but it can be extended above the waist line if preferred.

For a woman of medium size the plain skirt will require 6 1/2 yards of material 27, 5 1/4 yards 36 or 4 yards 44 inches wide when material has figure or nap, 5 1/2 yards 27 inches wide when material has no figure.

This pattern is cut in sizes 22, 24, 26, 28, and 30 inch waist measure.

BLOUSE WITH PEASANT SLEEVES, 7015



The blouse that is made from bordered material, is much seen this season and is very attractive as well as practical. Illustrated is one of the best models.

Medium size will require 3 1/2 yards of bordered material 20 inches wide, with 3/4 yard 36 inches wide for the shoulder portions; or 2 yards of plain material 27, 1 1/2 yards 36 or 44 inches wide.

This pattern is cut in sizes 34, 36, 38, and 40 inch bust measure.

CHILD'S COAT, 7030



This simple, loose coat is made with a big collar, is a smart one for little children, and available for many materials.

For a child of 4 years of age the coat will require 3 yards of material 27 inches wide, 2 1/2 yards 36 or 1 1/2 yards 44 inches wide.

This pattern is cut in sizes for children 4, 5, and 6 years of age.

Flour that has grown old can be used effectively and well by sifting several times and putting it into shallow pans and browning it well in a hot oven. Such flour is especially good for fruit cake, ginger bread, spice cake, brown bread, and all kinds of dark gravies.

It works like a Kodak

\$7.00



2A Folding Pocket BROWNIE

The first Brownie made 2 1/2 x 2 1/2 pictures and sold for a dollar.

It was made so well that the inevitable happened. Other and bigger Brownies for bigger people simply had to follow. They are made in the Kodak factories under Kodak superintendence by Kodak workmen. Habit with these people means honest workmanship. That's why the Brownie, a low-priced camera, has been and is a success.

The No. 2A Folding Pocket Brownie is a true pocket camera for 2 1/2 x 2 1/2 pictures, loading in daylight with Kodak film-riens. Capacity 12 exposures without reloading. Finest quality Kodak lenses. Achromatic lens of 3 inch focus. Pocket Automatic shutter for snapshots or instantaneous exposures, two tripod sockets, automatic focusing lock and reversible finder. Honestly and handsomely made in every detail. Covered with durable imitation leather, and has full nicked fittings.

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Other Brownies \$1.00 to \$12.00
Illustrated Catalogue of Kodaks and Brownie cameras, free at the dealers or by mail.

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Power Development.

H. Ralph S. If a man has his farm to keep, he should consider of it. Him to give the best of his laborious dispute.



gates commonly on farms. So others, realize that will do well and everywhere stock is maintained in accordance to use stock breeders poorly constructed are short-lived; they are heavy ably strong the

many communi- use, especially untities to employ- less in the long. The breeder cow has been so that he made his patches up, gate. He will fix up reminders. Hu- dents and com- duct of a breed- to gates that fa- the gate had b-

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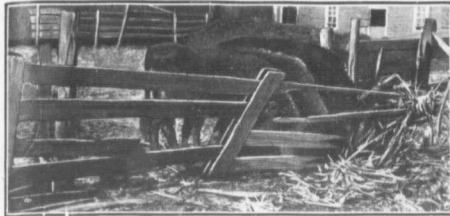
ANDREW

Good Gates as a Factor in Farming

H. Ralph Steele, Guelph, Ont.

If a man has not sufficient pride in his farm to keep his fences, and especially his gates in repair, the consideration of economy should compel him to give them attention. Neighborhood disputes, animosities and serious alterations are fostered by the

been strong on his job, "if" it had been a respectable farm gate instead of an eyesore and an impotent excuse, this accident or that would not have occurred. Dozens of stockmen have had occasion to reflect along this line. "If" they had used the right kind of gates the "ifs" enumerated would never have emerged to rebuke and condemn them in their own minds and in the public eye.



Inefficient, Unsightly and always a Nuisance

gates commonly used on some Canadian farms. Stock farmers, above all others, realize the importance of gates that will do reliable duty all the time and everywhere. Where pure bred stock is maintained it is reckless extravagance to use doubtful gates. Live stock breeders cannot afford to risk poorly constructed plank gates that are short-lived and easily wrecked. If they are heavy enough to be reasonably strong they are too expensive in

It is a common observation that comparatively few farmers are awake to the advantages and economic importance of practical, dependable gates for protection and convenience. Their tolerance of the crude, ineffective affairs used as gates argues a want of enterprise and business judgment that in some sections is astonishing. Experiences are common in every agricultural community that should induce stockmen, particularly breeders



Neat and Attractive, Yet Strong and Serviceable

many communities to warrant their use, especially in the face of opportunities to employ steel gates costing less in the long run.

The breeder whose \$300 pure-bred cow has been served by a scrub bull that made his way through an old patched-up gate, has had his lesson. He will fit up gates without further reminders. Hundreds of costly accidents and complications in the conduct of a breeding farm are traceable to gates that fail of their duty. "If" the gate had been shut, "if" it had

of pedigreed stock, to maintain their gates and fences in the best possible condition. Many a \$2 gate has allowed stock to smash through it, and destroy \$50 worth of grain. A saving of 50c in making or repairing cheap inferior gates often results in a loss equivalent to the cost of enough first-class steel gates to supply an entire farm. There is no economy in the average type of plank or wooden gate.

Have you forgotten to renew your subscription to Farm and Dairy?

Gombault's Caustic Balsam

The Worlds Greatest and Surest Veterinary Remedy
HAS IMITATORS BUT NO COMPETITORS!

SAFE, SPEEDY AND POSITIVE.

Supersedes All Caustery or Firing. Irreplaceable as a CURE for

- FOUNDER, WIND PUFFS, THRUSH, DYPHTHERIA, SKIN DISEASES, RINGBONE, PINK EYE, SWEENEY, BONY TUMORS, LAMENESS FROM SPAVIN, QUARTER CRACKS, SCRATCHES, POLL EVIL, PARASITES.

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- BUNCHES or BLEMISHES, SPLINTS, CAPPED HOCK, STRAINED TENDONS.

SAFE FOR ANYONE TO USE.

We guarantee that one tablespoonful of Caustic Balsam will produce more actual results than a whole bottle of any liniment or ointment mixture ever made. Every bottle sold is warranted to give satisfaction. Write for testimonials showing what the most prominent horsemen say of it. Price, \$1.50 per bottle. Sold by druggists or sent by express, charge paid, with full directions for its use.

The Accepted Standard VETERINARY REMEDY
Always Reliable. Sure in Results.



Keeps genuine without the symptoms of The Lawrence-Williams Co. Sole Agents for the U.S. & CANADA.

Finds Caustic Balsam to be Reliable.

I can say that I have for the past three years been a user of GOMBHAULT'S CAUSTIC BALSAM, and have found it to be all that is claimed for it, and have in a great many instances recommended its use to others.—H. D. KIRK, Antigonish, N.S.

"Canadians Appreciate Caustic Balsam"

"I have been using GOMBHAULT'S CAUSTIC BALSAM for years, and it is giving my customers the best of satisfaction. I have also used it myself on different ailments with the best results. You must contact me at its inventor.—W. T. PRICE, Berkeley, Ont.—"

Sole Agents for the United States and Canada.
The Lawrence-Williams Co.
TORONTO, ONT. CLEVELAND, OHIO.

MOLASSINE MEAL
(Made in England)

Is a Guaranteed Pure Food for Horses and Cattle, and will put them in most perfect condition making them Stronger and Healthier.

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IMPORTED BY

ANDREW WATSON

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91 Youville Square, Montreal, P.Q.

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100 Head Imported, Representing all the Choicest Imp. Milking Strains in Scotland, and 30 Head Bred from these Imported Sires and Dams, made up of

- 2 Stock Bulls, both unexcelled in breeding and individuality
- 4 Yearling Bulls, all fit for service (2 imported)
- 10 Bull Calves, from 2 to 9 months old

- 46 Cows, from 3 to 8 years old, inclusive
- 28 Two-year-old Heifers, all in calf
- 30 Yearling Heifers, many of them Scottish winners
- 10 Heifer Calves, from 3 to 9 months old



Every Animal Over 6 Months, Tuberculin Tested

These Include this Year's Importation of 70 Head now in Quarantine

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ROBERT HUNTER & SONS, Owners Maxville, Ont.

MARKET REVIEW AND FORECAST

Toronto, Monday, May 29—The wheat crop of Western Canada in 1911 will be 200,000,000 bushels, says Mr. Wm. Whyte, vice-president of the Canadian Pacific Railway. The western wheat crop is the most valuable single asset that Canada possesses. The condition of the crop affects to a large extent the prosperity of Canada as a whole. An increase of over 50 per cent. in the western crop will mean large amounts of money in circulation next winter.

Trade has been somewhat slow the past week owing to excessive heat. In some lines, however, prospects of good crops

have given rise to large orders for fall delivery.

Reviewing the market for farm produce, advances have been made in cattle and hogs, potatoes and eggs are firm, but largely increasing receipts threaten further declines.

Call money rates here at 5½ to 6 per cent.

WHEAT

The wheat market continues strong this week, and a not gain three-quarters of a cent is recorded. The closing price of 9c last week dropped to 8½ on Tuesday owing to favoring rains in Western Canada, but the market recovered remarkably the following day due to a sharp upturn in prices in Chicago. Heavy buying to cover shorts was the largest factor in increasing prices. Reports of hot, dry weather from the Western States also had an influence. No. 1 Northern is quoted at 95c; No. 2, 97c; No. 3, 95c. Ontario wheat is dull. Offers have been at 85c, but no sales are reported. Export and local demand are both dull. Prices are nominally unchanged at 85c to 86c outside for Ontario winter wheat, and 85c to 87c on the Farmers' Market; goose wheat, 87c.

COARSE GRAINS

Trade in coarse grains has been very dull. Small decreases in oats and corn are recorded, but there is very little trading in any line. The lower grades of oats are in best demand. Quotations are as follows: Oats, Canada Western No. 2, 39c; No. 3, 38c; Ontario white No. 2, 7c outside; 39c on track Toronto; corn 56c; peas, 75c to 80c; rye, 71c; barley, malting, 65c to 67c; feed, 55c to 57c; and buckwheat, 51c. Trade is dull on the Montreal market. Oats show a decline, other quotations are steady. Oats, Canada Western No. 2, 42c to 45c; No. 3, 40c to 40c; No. 2 local white, 39c to 40c; No. 3, 39c to 39c; No. 4, 38c to 39c; corn, 60c; barley, malting, 75c to 76c; feed, 55c; peas, 81c to 81½; buckwheat, 54c.

MILL FEEDS AND MEALS

Little can be said regarding the market for mill feeds. There is little or no trading being done. The exports to the United States mentioned last week have ceased. Quotations are as follows: Manitoba bran, 82c; shorts, 82c; Ontario bran, 82c; shorts, 82c, 82.50. At Montreal there is little mill feed offered and the demand is in proportion. Manitoba bran, 82c; shorts, 82c; Ontario bran, 82c; shorts, 82.50 to 83.

HAY AND STRAW

Receipts of hay and straw on both wholesale and retail markets have been

more liberal than for several weeks. The market is easier and prices reduced. No. 1 timothy is quoted at \$12 to \$13; clover and timothy mixed, \$9 to \$11; and straw, \$6 to \$6.50 on track here. On the Farmers' Market No. 1 timothy is quoted at \$16 to \$18; inferior, \$10 to \$15; straw, \$14 to \$16; losses, \$8 to \$10.

In the Eastern Townships, competition between American and Canadian buyers continues. The local demand has been just about satisfied, but large quantities are still going forward to United States points. No. 1 hay is quoted at \$13 to \$15.50; No. 2, \$9.50 to \$12.50; No. 3, \$9 to \$9.50.

SEEDS

Wholesale seed merchants are selling to the trade at the following prices: Alsiko No. 1, 81c a bush; No. 2, 80c; No. 3, 78.75; red clover, No. 1, \$10.50; No.

Entries Coming In

During the past week, Mr. J. E. Caldwell, City View, Ont., has entered his 300 acre farm in the Interprovincial Dairy Farms Prize Competition. Mr. Wm. Wightman, of Lancaster, writes that he is planning to enter his farm, and W. F. Bell, of Britannia Bay, has assured us that he is arranging to enter his 130 acre farm on which he keeps 35 head of dairy cattle of various ages. These three farms are all in district No. 2.

From Ontario County, Mr. S. A. Northcott, of Taunton, has intimated that he will enter the contest.

All intending competitors are urged to advise the secretary as soon as possible of their intention to take part in the competition.

HIDES

There is a good demand here for hides. Prices at Montreal and Toronto are as follows: No. 1 inspected steers and cows, 10c; No. 2, 9c; No. 3, 8c; calf skins, 15c. Country stock is quoted as follows: Hides, cured, 9c to 10c; green, 8c to 9c; sheep skins, \$1 to \$1.25; lambs and pelts, 2c up; spring lambs, 15c to 20c; horse hides, 8c; horse hair, 3c; calf skins, 14c to 15c.

WOOL

More wool is being received, but shearing is not general yet. Washed fleeces, 19c to 20c; unwashed, 15c to 16c; rejects, 15c to 16c.

HONEY

Wholesalers are selling buckwheat at 6c to 7c a pound in tons, and 6½c in bar-

AYRSHIRES

HIGH CLASS STOCK FOR SALE
Ayrshire cattle, all ages. Yorkshire Pigs, all ages. Superlative Yorkshire hogs, 3 months. Clydeedale stallion, 2 years. Standard and Silies, 4 and 5 years. Apply to

HON. W. OWENS, ROBERT BINTON
MANAGER
Riverside Farm, Montebello, Que.

RAVENSDALE STOCK FARM

Ayrshires, Clydeadales, Yorkshires
A few very choice bul Calves, out of deep milking dams, and sired by 'Bencheskie Chief' and 'Hoy' (Imp). Write now and secure fine choice. Females of all ages. A Commercial Herd.

W. F. KAY, PHILIPSBURG, QUE

BURNSIDE AYRSHIRES

I AM LEAVING FOR SCOTLAND after 18 months to make a large importation. Any orders entrusted will be carefully filled. My Agents here have over 40 head of betters and cows bred and born in September.—R. B. NICKER, HOWICK, QUESNEL

STONEHOUSE STOCK FARM

Is the home of most of the coveted honors at the leading eastern Exhibitions, including first prize old and young herd. FOR SALE a few choice Young Cows, also bul Calves.

HECTOR GORDON, HOWICK, QUE.

SUNNYSIDE AYRSHIRES

Imported and home bred, are of the choicest breeding of good type and have been selected for production. THREE young bulls dropped this fall, sired by 'Nether Hill Good-time'—56641—(Imp) as well as a few females of various age for sale. Write or come and see.

J. W. LOGAN, Howick Station, Que. (Phone in house.) L-11

AYRSHIRE BULLS Fit for Service

I HAVE a two-year-old bull and three bul calves (imp) for sale. They have been well raised and are out of heavy producing dams. All are registered with the C. S. B. Each, the other weighs 445 lbs. Over 500 and I respect this stock or write for full particulars.

WOODLAND STOCK FARM
J. O'CONNOR, Prop., CAMPBELLFORD, Ont.

CHOICE AYRSHIRES

Are Bred at "OHEERY BANK" A few young bul calves for sale. Write for particulars on P. T. Ry

D. MCARTHUR, North Georgetown, Howick Station on P. T. Ry Que

LAKESIDE AYRSHIRES

Special offering of four young bulls, different ages, from imported stock. Write for particulars on P. T. Ry

LAKESIDE FARM, PHILIPSBURG, QUE
GEO. H. MONTGOMERY, Prop., 164 St. James St., Montreal

'La Boie de la Roche' Stock Farm

Have kept the choicest strains of AYRSHIRES, imported and bred. AYRSHIRES of the best bacon type. WHITE ORPINGTONS, WYANDOTTES and BARRED ROCK Poultry.
Hon. L. J. FORGET, J. A. BIBEAU, Proprietor
Ste. Anne de Bellevue, Que.

Ayrshires

The Champion herd for milk and production. Some young bulls and bul calves, all from R.O.P. cows for sale. A handsome collection of Tangleyid in the lot. Address
WOODDISSE BROS., Tangleyid Farm, ROTHSAY, ONTARIO

THE SPRINGBANK HERD OF AYRSHIRES

One of the World's Champion milk and butter producers. Bred in Ontario and America. A few choice bul calves from record breaking dams for sale at reasonable prices. Address
A. S. TURNER & SON
Ryckman's Corners, Ont
3 miles south of Hamilton.

CRUMB'S IMPROVED WARRIERS STANCHION
Henry H. Albertson, Burlington, N. J., writes: "I use Crumb's Improved Warriers Stanchions all greatly to the comfort of my cows."
WHY TORTURE yours with rigid stanchions? Send for specifications of Crumb's Improved Warriers of inexpensive yet satisfactory cow stable to WALLACE B. CRUMB, 104 Fernside, U.S.A. Canadian orders filled from Canadian factory. All correspondence should be addressed to the above office. State in inquiry if you prefer booklet in French or English.

AYRSHIRES
AYRSHIRE BULLS
Young Bulls all ages up to one year, three fit for immediate service, all from R.O.P. stock. Write for prices.
JAMES BEGG, ST. THOMAS, ONT.
R.R. No. 1

PIGS & CALVES WANTED

Farm and Dairy
would like to purchase Yorkshire Boars, Chester White Boars, Ayrshire Heifer Calves, and Holstein Heifer Calves, from 6 to 8 weeks old.
Write Circulation Manager FARM AND DAIRY Peterboro, - - Ontario giving prices and ages of animals

Frost & Wood Co. Limited
Do A Bigger Day's Work With Champion Side Delivery Rake and Champion Hay Loader
Sulky rakes are all right as far as they go, but you can do a far bigger day's work in the hay field by using the "Champion" Side Delivery Rake and the "Champion" Hay Loader. The Side Delivery Rake shakes up the hay so it will be in best condition for curing and leaves it in a continuous window ready for the "Champion" Hay Loader. This machine then follows along and loads the hay just as fast as you please—two tons in ten minutes.
Just let us send you catalogue #41 so you can see for yourself how much you require these machines.
Frost & Wood Co., Limited
Smith's Falls - Canada

Do A Bigger Day's Work With Champion Side Delivery Rake and Champion Hay Loader
Sulky rakes are all right as far as they go, but you can do a far bigger day's work in the hay field by using the "Champion" Side Delivery Rake and the "Champion" Hay Loader. The Side Delivery Rake shakes up the hay so it will be in best condition for curing and leaves it in a continuous window ready for the "Champion" Hay Loader. This machine then follows along and loads the hay just as fast as you please—two tons in ten minutes.
Just let us send you catalogue #41 so you can see for yourself how much you require these machines.
Frost & Wood Co., Limited
Smith's Falls - Canada

BULL CALVES
Grandsons of 36 times Koradpke of Hengerveld Farm
A. A. F. OSHAWA

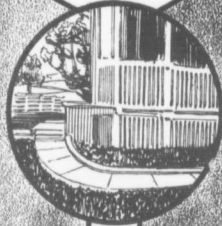
Lynden
An offering bull and cow for sale as of the day, the latter each own, and testing Write for particulars SAMUEL LEMON

FOR SALE—KNISHT
Shire in farrow, and either sex—C. Out.

SUNNYSIDE
All ages—J. M. M. Quibben
CLYDEDALE HOETL—Large Belgians, reasonable. Brooders and Im

EDMONTON
WORTHY FOUND good, prices reasonable, Thornhill
HOUSTING AND also S.C.W. Sale at any time in Ontario.

YORKSHIRE AND
Plymouth Rock Dyrus, 434 Park
RIDGEHOLE HOLSTEINS in regard to dress R. W. Wa



\$3,600 in Cash Prizes for Farmers

ARE you one of the thousands of Canadian farmers who have used or intend using Canada Cement for the construction of some farm utility? If you contemplate building anything whatsoever of concrete, make up your mind right now to build it with a view to winning one of the prizes we are offering. Read the rest of this announcement and you will learn how you may try for a share in the \$3,600 we are giving away, to encourage the use of cement upon the farm. Throughout Canada the farmers have taken such a keen interest in our campaign that has inspired us to go further along these educational lines. We have decided, therefore, to offer a series of four \$100.00 prizes to each of the nine Provinces, to be awarded as follows:

PRIZE "A"—\$100.00 to be given to the farmer in each Province who will use during 1911 the greatest number of bags of "CANADA" Cement for actual work done on his farm.

PRIZE "B"—\$100.00 to be given to the farmer in each Province who uses "CANADA" Cement on his farm in 1911 for the greatest number of purposes.

PRIZE "C"—\$100.00 to be given to the farmer in each Province who furnishes us with a photograph showing best of any particular kind of work done on his farm during 1911 with "CANADA" Cement.

PRIZE "D"—\$100.00 to be given to the farmer in each Province who furnishes the best and most complete description of how any particular piece of work shown by photograph sent in, was done.

In this contest no farmer should refrain from competing, because of any feeling that he may have

little chance against his neighbor who he thinks might use more cement than he does.

For it will be noted that Prizes "C" and "D" have no learning whatever on quantity of cement used. The man who sends us the best photograph of so small a thing as a watering trough or a hitching post, has as much chance for Prize "C" as a man who sends a photograph of a house built of cement—and, the same with Prize "D" as to best description.

Canada Cement is handled by dealers in almost every town in Canada. Should there not happen to be a dealer in your locality, let us know and we will try to appoint one.

Contest will close on November 15th, 1911, and all photos and descriptions must be in our office by that date. Awards will be made as soon as possible thereafter. The jury of award will consist of: Prof. Peter Gillespie, Lecturer in Theory of Construction, University of Toronto; W. H. Day, Professor of Physics, Ontario Agricultural College, Guelph; and Ivan S. MacDonald, Editor of "Construction."

Now, you cannot hope to do concrete work to the best advantage unless you have a copy of our free book, entitled, "What the Farmer Can Do With Concrete." This book tells how to construct well-nigh anything on the farm, from hitching post to silo. Whether you enter the contest or not, you'll find this book most helpful. A post-card asking for the book will bring it to you promptly. Send for your copy to-night. From your cement dealer or from us, you can obtain a folder containing full particulars of contest. If you send to us for it, use the coupon provided in this announcement.

The Canada Cement Co.
LIMITED
MONTREAL, QUE.

Please send me full particulars of Prize Contest. Also a copy of "What the Farmer Can Do With Concrete."

Name.....

Address.....

OUR FARM Correspondent

PRINCE EDW. KING'S LOWER MONTAG has not been one h also Feb. 1st. Th



The Holstein bull Ont. is a splendid he is for sale. F ground are very dr not suffered much of ground ready fo les have sown any good condition and well. A cow owned Queen's Co. is cautious, as it is ex the world's record Yorkshire. Her teat at the present time is to her credit. is going still higher fairly good crop. A A. Angus gave birth grown lambs. The were never better a general this year th

QUE SHERRBROOK LENOXVILLE, M ditons have been v ing this spring, and vanced. With a co should have another Pastures are good well. If we do not in delaying it will n The price of butter or 25¢ per lb. is v very scarce and ar use—H. McP.

ONT NORTHUMBER EDVILLE—Mr. Wa my neighbors, is ma the power to pump s The chop is ground used over the barn is placed directly ov rods from the barn, feet deep to both ho

You C A BROTHER AB will clean sh for much sh not blister tell you more bottle at 6 Mr. S. N. WILSON J.A.D. 21, 1910: ING with success on W.F. YOUNG, P.B.F., 123 TER LYMAN'S Ltd., Mont

OUR FARMERS' CLUB
Correspondence Invited

PRINCE EDWARD ISLAND

KING'S CO., P.E.I.

LOWER MONTAGUE, May 23.—There has not been one half inch precipitation since Feb. 1st. The top few inches of

Mr. Dunnett first installed his watering system, the pipes were not laid so deeply and freeze-ups were frequent. In the barn is a storage tank and in front of each animal individual water basin.—S. H.

DURHAM CO., ONT.

NEWCASTLE, May 20.—We will have to spray this year. Many of the fruit grove growers have formed a cooperative fruit growers' association and no one can enter it who will not take good care of

hush of grain, 30 tons of hay, and 15 acres of corn. Very head of cattle were wintered, mostly Herefords, besides a great number of horses of all ages. No cross farrows are required on the farm, which makes it easy on the machinery.—J.E.O.

A GRAND BULL

Butter Boy Keyes 2nd, the bull here illustrated, has just come into the possession of A. D. Foster, of Bloomfield, Ont., and is offered for sale. Concerning this bull, Mr. Foster writes Farm and Dairy as follows:

"Butter Boy Keyes 2nd was bred by me, and is a son of our old matron cow, Helena De Kol's De Kol—record, 21.18 lbs. butter at 14½ years. We have a full sister to this bull that made 23.11 lbs. butter in 7 days at 2 years, and 21.222 lbs. at three years; average fat, .91 per cent. We believe that she will make a 30 lb. cow. His sire is Keyes Count De Kol, 2,562, 10 Record of Merit daughters and his dam is Maggie Keyes, 26½ lbs. butter in 7 days, 19,434 lbs. milk in one year as a three-year-old. Butter Boy Keyes sire is half brother to Max Echo, the champion Record of Performance cow, that sold at the Belleville Breeders' consignment sale for the splendid sum of \$1,475.

"It would be hard to find a bull of better breeding than Butter Boy Keyes 2nd. His dam is half sister to the three great bulls, Hengerveld De Kol, who has 115 A.R.O. daughters, and is the fourth best bull of the Pontiacs; Pieterje Hengerveld's Count De Kol, 95 A.R.O. daughters, two over 32 lbs. butter in 7 days; also De Kol Berk, with a long list of

A.R.O. daughters, three over 30 lbs. butter in 7 days. Butter Boy Keyes 2nd is a fine show bull, as his sire was. He is gentle, a sure server, and is now four years old. His daughters are just coming to milk. They are good producers, but none have been officially tested as yet. They are, however, very handsome and nicely marked.

Pure bred fowls, any standard variety, given in return for new subscriptions to Farm and Dairy.



SYNOPSIS OF CANADIAN NORTH-WEST LAND REGULATIONS

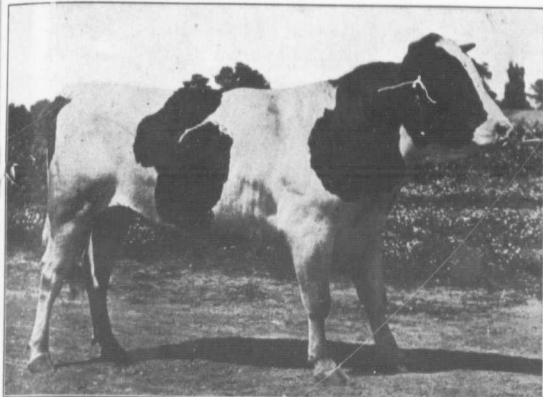
Any person who in the sole head of a family, or any male over 18 years old, may homestead a quarter section of available Dominion land in Manitoba, Saskatchewan or Alberta. The applicant must appear in person at the Dominion Lands Agency, or sub-Agency, for the District Entry by proxy may be made at any agency, on certain conditions, by father, mother, son, daughter, brother or sister of intending homesteader.

During six months' residence upon and cultivation of the land in each of three years. A homesteader may live within nine miles of his homestead on a farm of at least 80 acres solely owned and occupied by him or by his father, mother, son, daughter, brother or sister.

In certain districts, a homesteader in good standing may pre-empt a quarter section alongside his homestead. Price \$5 per acre. Duties—Must reside upon the homestead or pre-emption six months in each of six years from date of homestead entry (including the time required to earn homestead patent) and cultivate fifty acres extra.

A homesteader who has exhausted his homestead right and cannot obtain a pre-emption may enter for a purchased homestead in certain districts. Price \$5.00 per acre. Duties—Must reside six months in each of three years, cultivate fifty acres and erect a house worth \$1,000.

W. B. COREY, Deputy of the Minister of the Interior, Ottawa, has maximum number of this advertisement will not be paid for.



A Good Individual and of Splendid Breeding

The Holstein bull, Butter Boy Keyes 2nd, here shown, owned by A. D. Foster, Bloomfield, Ont., is a splendid individual, and in his pedigree are named many of the greatest producers.

ground are very dry, but the grass has not suffered much yet. There is a lot of ground ready for seeding, but very few have sown any. Live stock are in good condition and cattle are milking well. A cow owned by Andrew McKee in Queens Co. is causing considerable excitement, as it is expected she will break the world's record for a two-year-old. Her test began Aug. 3rd, and at the present time she has nearly 10,000 lbs. to her credit. The price of horses is going still higher. Lambs have been a fairly good crop. A sheep owned by J. A. Anser gave birth to four lively, well grown lambs. The prospects for fruit were never better and spraying is more general this year than formerly.—G.A.A.

QUEBEC

SHERBROOKE CO., QUE.

LENOXVILLE, May 17.—Weather conditions have been very favorable for seeding this spring, and the work is well advanced. With a good supply of rain we should have another year of good crops. Pastures are good and cows are doing well. If we do not have a banner year in dairying it will not be the cows' fault. The price of butter is down around 26¢ at 26. Pork is 6¢. Potatoes are very scarce and are worth about \$1 a bush.—H.M.P.

ONTARIO

NORTHUMBERLAND CO., ONT.

EDVILLE.—Mr. Wallace Dunnett, one of the power to pump water and grind chop. The chop is ground by a large mill sit, water over the barn. A smaller windmill is placed directly over the well about 10 rods from the barn. Piping is laid five feet deep to both house and barn. When

his orchard, Mr. R. S. Duncan, our district representative, was instrumental in forming this society. Mr. G. H. Martin was elected president, Dr. G. C. Leslie vice-president, and W. J. Oke secretary and manager. Mr. P. J. Carey was present at the organization meeting and gave a helpful address.—N.L.

ONTARIO CO., ONT.

TAUNTON, May 20.—This spring opened up quickly, and the spring crop was put in in a short time. The few occasional showers with the exceptionally warm weather recently have brought along the young plants in good shape, and every thing is looking well. Fall wheat and clover have been badly winter killed. A good many fields have been reseeded to spring grains. There is an excellent show of blossoms on the apple orchards, and if favorable weather continues there should be a good crop of fruit. Spraying has been conducted quite extensively.—S.A.M.

ELGIN CO., ONT.

CALCOTTS MILLS, May 23.—The weather is very warm, and everything is growing with a vim. Labor is scarce, and the farmers are obliged to work early and late, about 15 hours a day, to keep up with the rush of the season. Those who seed silos for the first time last winter are well satisfied. Farms are selling at high prices. The June bugs are as thick as flies, and are doing considerable damage to the fruit and other trees. The price of cattle and hogs is on the downward grade. Horses are soaring higher in price every day. The market cannot be supplied.—J.E.O.

KENT CO., ONT.

WHEATLEY, May 25.—Spring was backward in April, but since has turned very warm. Vegetation is as far advanced as usual at this time of year. Wheat and grass are looking fine, oats and other spring grains are a little backward, corn planting is about as far advanced as usual. Prospects on fruit trees profuse; excellent prospect on fruit.—J.W.K.

MIDDLESEX CO., ONT.

TEMPO, May 23.—Perhaps there is no ordinary farm in Canada that is better underdrained than one in this neighborhood, belonging to Wm. Davis. The farm consists of 176 acres, and has over 25 miles of tile, in size from three inches up to eight inches. Some of the drains are in the ground 12 feet deep. The owner is pleased with the results of underdraining. Last year the farm produced 2,400

Amattite Roofing
Needs No Painting.

AMATTITE roofing is weaned. It doesn't need to be washed over and fussed with and cared for.

It takes care of itself from the start. As soon as it is laid on your roof, you can go away and forget about it.

You don't have to paint Amattite every two years as you do the "rubber" kinds. Amattite has a mineral surface which needs no painting.

The mineral surface is better and more durable than many coats of paint.

Back of the mineral surface is a layer of pitch, the greatest waterproofing compound known. Back of the pitch is a layer of felt (a whole ready roofing in itself), and behind this is another layer of pitch

and another layer of felt. The result is a strong, durable roof which can take care of itself in any climate without painting.

We will be glad to send you free a sample of Amattite Roofing so that you can see for yourself just what it looks like. Address our nearest office.

Everjet Elastic Paint
Low in price. Great in durability. Invaluable for prolonging the life of roofs, porches, fences, iron work, etc.

Crenoid Life Destroyer and Cow Spray
It will keep flies away from the cows. It will keep lice and nits away from the poultry, making everything sanitary and increasing their output.

THE PATERSON MFG. CO. Limited
Montreal Toronto Winnipeg
St. John. N. B. Halifax, N. S.

You Can't Cut Out
A BOG SPAIN, PUFF or THOROUGHPIN, but **ABSORBINE**

will clean them off permanently, and you mark the horse's skin. Does not blister or remove the hair. Will tell you more if you write, \$2.00 per bottle at Dr. J.C. Smith's Dispensary.

Mr. S. Nixon, Kildridge, Ont. writes Jan. 21, 1910: "I have used ABSORBINE with success on a curb."

W.F. THURK, P.B.F., 125 TEMPLE ST., SPRINGFIELD MASS.
LYMANS Ltd., Montreal, Canadian Agents

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YOU only need to look at the contents page of this book to see how complete and comprehensive it is. In all the

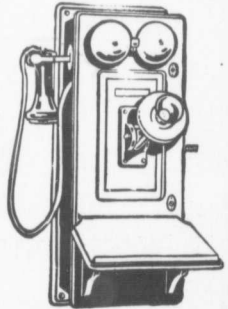
hundred pages between its hard, cloth-bound covers, there is not one single superfluous word—nothing but a carefully indexed mass of necessary information. There is no other book in existence that deals so thoroughly with every vital, essential fact—that so clearly tells the farmer

"How to Build Rural Telephone Lines"

When you get this book, read it over at least twice. You will need to do that to assimilate the information it contains. No matter in what phase of the work you are interested—whether you want to know about telephone company organization, whether you want to know about the actual construction of the line,

whether you want to know what other community-owned telephone companies have done, or whatever it is you do want to know, you will find the facts set forth in detail in this book. This volume has cost a lot of money and careful study to prepare and we really ought to charge for it. As long as the edition lasts, however, we will send it **free**, but only to those who, by asking for it, signify that they are really interested. Are **you** interested?

If so, clip the coupon, fill in your name and address and mail it to us today.



The Northern Electric

AND MANUFACTURING CO. LIMITED

Manufacturer and supplier of all apparatus and equipment used in the construction, operation and maintenance of Telephone, Fire Alarm and Electric Railway Plants. Address our house nearest you.
MONTREAL TORONTO WINNIPEG REGINA CALGARY VANCOUVER

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780

The Northern
Electric and
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Limited

Gentlemen,
Please send me FREE, one copy of your 100 page, bound and illustrated book on "How to Build Rural Telephone Lines."

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