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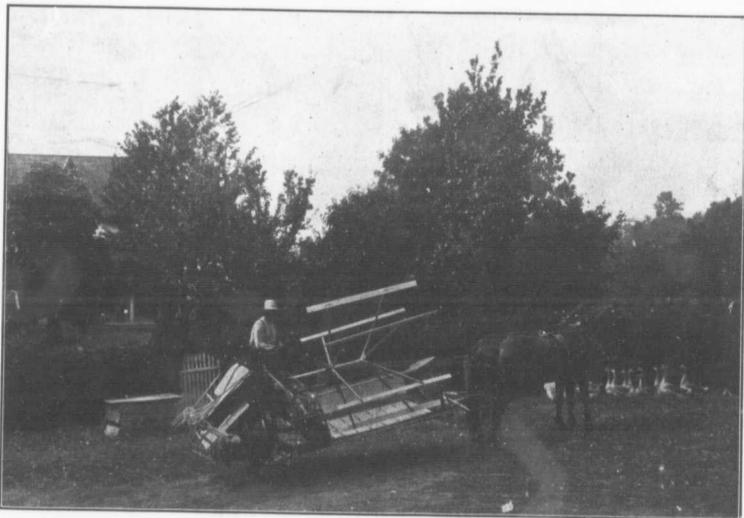
FARM AND DAIRY

RURAL HOME

PETERBORO, ONT.

JUNE 2,

1910.



OF THE VARIOUS FARM MACHINES THE SELF BINDER IS ONE OF THE MOST IMPORTANT
In this issue of Farm and Dairy a number of farmers record their experiences with labor saving machinery. So great has been the improvements in farm machinery that Farm and Dairy deems it well to devote special attention at this time each year to this subject. The Self Binder is one of the most remarkable and most needed farm machines of the day, but there are numerous others that have become almost as essential and that are large profit makers. Farm machinery when purchased judiciously in spite of the heavy cost involved, soon pays for itself.

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CANADIAN COUNTRY LIFE

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WE WANT AGENTS IN A FEW UNREPRESENTED DISTRICTS



The Farm Repair Shop

Charles Malcolm, Colchester Co., N. S. Exposure is the greatest cause of depreciation in farm implements. A great deal of time and money is also lost, usually in the busiest season, from breakages of machinery during work hours. Very often work has to cease completely and the hands remain idle while the machine goes to the shop for repairs, and the expense of such breakage is a serious matter. Farmers as a rule have a practical knowledge of mechanics from their experience with the many machines they use, and the great majority of all repairs on the farm could be made quickly and efficiently at home if the proper tools were on hand with which to do the work.

To equip a tool shop with the necessary material for farm repairs is not as big an investment as one might think, and the time and money saved by such conveniences will amply repay the initial cost, to say nothing of the added satisfaction of having the work run along smoothly and continuously without the usual stops for repairs at distant shops. The life of farm implements is also considerably lengthened when the parts are kept tight and in good working order, as the operation of machines in poor repair sends them to the junk pile.

SELECTING AN EQUIPMENT.

In selecting an equipment of tools, the first essential is to decide on the ones that will be useful for the particular business conducted on the farm. Purchasing an indiscriminate lot of tools is poor policy. Give preference at first to the ones most frequently and urgently needed, and pass over those that will be rarely used. Another important point is to purchase tools of good quality, not necessarily those with a fine finish, but good standard tools bearing the name of the manufacturers. Cheap grades are bought, but they never prove satisfactory, and any hardware dealer can now supply all kinds of workshop appliances of convenient size for the farm at a reasonable price.

Each farmer will be selected to his own list, but it should be remembered that a small, well selected outfit, used to the best advantage and well cared for, will prove more satisfactory than a large miscellaneous assortment improperly kept and used. Among the more important wood-working tools that every farmer should have are an ax, claw hammer, hand saw, rip saw, Jack plane, steel square, brace and bits, chisels, screw driver, augers and spirit level. There are a great many others, but the ones mentioned will be found sufficient for ordinary wood work on the farm. These range in price from 25 cents to \$2.00 each, except the brace and set of bits, which cost about \$3.00.

IRON WORKING TOOLS.

The main outfit in equipping a tool shop comes in the iron working tools, but on the other hand this is the outfit that saves the most money in repair expenses. With such appliances, a tool shop becomes a real workshop; without them, it is little more than a playhouse. Among the larger and higher priced items in this list that are necessary for a reasonably complete equipment may be mentioned a forge, costing about \$5.00; an anvil, \$7.00; vise, \$4.00; drill, \$10.00; taps and dies, \$5.00. The prices given are the average cost of such machines suitable for farm use. A great deal more money may be expended, but the amounts indicated should secure small sized tools of good standard quality. Added to this list will be blacksmith hammer, tongs, files, wrenches, cold chisels and pieces, any one of which should not exceed a dollar in cost.

It is hardly necessary to mention the grindstone and oilstone, as these are fixtures on every farm. A small supply of timber, bar iron, bolts, rivets,

screws and nails should be always in stock, as a repair equipment will be of little use if there is no material handy with which to replace the broken parts. The habit should be formed of saving every little piece of good material that can be used for repair work.

Scales, Their Use to a Farmer

S. A. Northcott, Ontario Co., Ont.

Like many another thing about a farm, a set of weigh scales can be had profitably; but not profitably, however, nor to the satisfaction of the farmer. There are thousands of one things that a farmer often would like to know the weight of. Such information might or might not put direct dollars into his pocket; at a rate, it would give him a great deal of satisfaction.

A farmer has something to sell nearly every day of the year. It is necessary for him to know the weight of many things that he is selling. Grain, potatoes or roots may be measured. But how much easier and better it is to weigh these things! By weighing, the work is done in half the time and both the buyer and seller are satisfied with the amount bought and sold.

THE BEST OF THE BARGAIN.

When stock is for sale, a set of scales will greatly aid the owner to sell to advantage. A buyer comes along and offers a certain price for the beast, or for a number of them, and if the farmer does not know the weight of what he has for sale and has no convenient way of finding out, the other fellow more likely than not will get the best of the bargain.

Even if stock is sold by weight, a farmer should have his scales and weigh the stock at home. He is then in a position to check the weights given by the dealer and thus make sure that he is getting a square deal.

There are many makes of scales on the market. All are not convenient, however, for weighing stock. I noticed in a recent issue of Farm and Dairy an advertisement of the Manson-Campbell scales, a set of which we have used for some time for weighing stock and for general use, and they have given entire satisfaction. Any farmer who has not already a good set of scales will never regret having made the investment of a set.

Fifth Place in Wheat Production

A statement prepared by the Census and Statistics branch of the Department of Agriculture, Ottawa, shows that among wheat producing countries of the world Canada now ranks fifth. In 1908 Canada ranked tenth. The total production of wheat in Canada last year is given as 166,744,000 bushels, compared with 112,434,000 bushels in 1907.

Last year the wheat production by countries was as follows: Russia, 786,472,363 bushels; United States, 713,286,923 bushels; France, 361,050,300 bushels; British India, 253,592,377 bushels; Canada, 166,744,000 bushels; Italy, 155,711,230 bushels; Spain, 144,511,581 bushels; Germany, 138,500 bushels; Argentina, 133,581,000 bushels; Hungary, 125,365,287 bushels; Great Britain and Ireland, 64,525,212 bushels. In 1908 the order of precedence in respect to production was as follows: United States, Russia, France, British India, Hungary, Argentina, Italy, Germany, Canada and Australia.

The Manitoba Elevator Commission was sworn in and opened offices at Winnipeg last week. Communications are invited from anyone having anything in the way of information to offer, and the Commission will proceed at once on an investigation of the shipping conditions and requirements throughout the Province preparatory to formulating a scheme for the establishment of a Government-owned system of grain elevators.

"BT" STEEL STALLS and STANCHIONS



With Cement Floors reduce labor to a minimum, and make bright and sanitary stables. They are practically indestructible, while the out-of-date stables are constantly in need of repairs, and are short lived compared with the latest and most up-to-date stables. You will be surprised at the low cost of them.

Our new catalogue contains a lot of valuable information for you if you are building a new barn or remodeling your old one. It is free, and a post card with your name and address plainly written will bring it. WRITE:

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SOME FORMS OF POWER ON THE FARM*

Anson Groh, Waterloo Co., Ont.

The Economy of Using Various Labor-Saving Devices and Machines in Place of Manual Labor—A Higher Type of Hired Man That is Worthy of His Hire.



Anson Groh

THE most important power for any farm is strong, clear, self-reliant mental power. We once wrote, "Successful agriculture to-day does not depend so much upon muscle and endurance as it does upon capital and *gumption*. Particularly in recent years have the fields of opportunity and the scale of wages made it difficult for us farmers to employ needed help, and while we may mentally speculate on the causes and prob-

able outcome of the changed conditions, the conditions themselves are forcing a cure. A system of mechanical agriculture is being evolved whereby the farmer accomplishes more in one day than he did heretofore in two, and with greater ease."

But this mechanical agriculture, with its increased physical and mechanical power accompaniment, requires to be manipulated and presided over by a higher grade of intellect or a broader experience than was the case with the old order, and this must be rewarded accordingly.

TWO VS. FOUR MEN.

My eight work horses are kept busy most of their time by two teamsters. Those men cost more money each than men can be hired for who are capable only of handling two horses at a time, but the two men are much cheaper at the better wages than four men who are only capable of keeping the same horses busy.

Mechanical agriculture calls for men of power and ability on the farm. Such men are more likely to be self-respecting and safe company to keep on a farm where it is necessary that the men become part of the family, and if the worth of manly and capable men were more appreciated and employed by the year, at fair wages ungrudgingly given, it would not be so difficult to get satisfactory help on our farms. By furnishing such men with the proper power and mechanical equipment, the ultimate cost of production and net profits will be more satisfac-

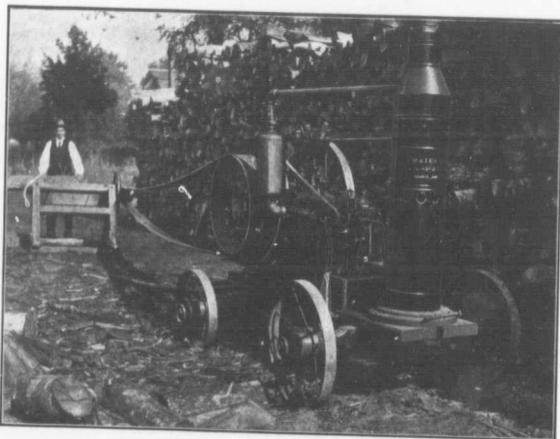
*This article is the second essay written by Mr. Groh, whose farm was a prize winner in the Dairy Farms Competition last year. Practical articles on practical subjects, by practical and highly successful prize winning farmers are now running in a series weekly in Farm and Dairy. Your neighbor would thank you for telling him about these articles, and inducing him to subscribe to Farm and Dairy.

tory than on farms where cheap men and lack of equipment prevail.

PLENTY OF HORSE POWER.

Having the farm supplied with good men, they will be entitled to, and your interests will demand, plenty of horse power of the right sort, to move the implements at an effective rate of motion. True, horses grow old and wear out, but that is not sufficient excuse for having nothing but imbecile equine power on the farm.

On our farms we are widening and increasing the scope of the implements with every new purchase. The plowing is all done with two-furrow plows. The harrowing is now done at the rate of 36 feet to the round. A 16-plate disc has taken the place of the old 12-disc implement. The drill



The Popular Farm and General Purpose Power of the Day

The gasoline engine in various degrees of horse-power is finding distinct favor on many farms where an all-round power is required. The illustration shows one of the medium sized engines at work in Brant Co., Ont.

sows two drills more than its predecessor. The spring tooth cultivator is now required to do work which at one time we did with the single furrow plow.

HUSBANDS THE POWER OF MEN.

At all stages of the labor of the farm, including manure spreading, tillage, seeding, harvesting and housing of crops, we prefer to husband the power of men and transfer the call for physical force on to horses and machinery. Side delivery rakes, hay loaders, slings, racklifters, and such like devices, we believe to be economical.

This question of power on the farm has, however, a different point from which it may be considered. Shall we require the hired man to take his rest on the pump handle, or on the bucksaw?

There are a number of things to do on the average farm that call into consideration the question of the most suitable power.

When first we came upon this farm it was evident how the first settlers had solved the water problem. The buildings were planted to the northwest side of a hill, where there was lots of water below. We could go down and carry up all the water needed for domestic use! The cattle could go down the gully to the water trough not very far away; but, when in winter after a thaw or rain it froze, then we had our troubles over the glassy hill!

SOLVING THE WATER PROBLEM.

This had to be remedied, and our first move was to put a pipe into the hillsides from a spring of water up to the kitchen of the house and from there to the barnyard; a pump at the spring forced the water up the hill, if we manipulated the handle. The next stage of the evolution was a ditch, a small dam, a home-made water wheel—about five feet in diameter—the necessary coupling

and connections of wires to attach the power of that wheel to the pump by means of triangles. Then when the water was turned on to the wheel, we had rejoicing on top of that hill, for the water came full and free, all of itself. And this form of a pumping station should not be despised on any farm in this fair province, although all must be made secure against interference from frost.

Having water on the brain, however, we could not stop there. We had heard of the hydraulic ram as an automatic pump. We studied it and its requirements and next installed a number four hydraulic ram. After over 20 years' experience with this ram, I am convinced that where conditions are right, no better plant for pumping water can be put in than the hydraulic ram. The manufacturer's circulars give full instructions as to requirements, and anyone having a flowing stream of suitable water with several feet of fall and study the problem.

CAPITAL FOR SATISFACTORY SERVICE.

Our next power problem for water pumping had to be worked out a few years ago when we purchased our Bunker farms. Through the greater part of the year the stock on a 200-acre farm had to be watered from one well by hand pumping. This we estimated took over one month of labor of one man each year, and that not very congenial labor either. Thirty dollars a year for pumping water ought to be capital enough for a more satisfactory service.

For pumping water only, wind power may be as economical as any and quite satisfactory if good and abundant storage capacity is provided.

But we planned to build a dairy at the well, where we would have a large supply of fresh water receivable at the stables under control of float valve. We wanted power that might be under control, and with shafting and pulleys could be used for pumping, churning, cream separating, running the emery wheel or any such light work. We decided that a small gasoline engine should do the work. These machines for this purpose are now quite common throughout Waterloo county, and are giving good satisfaction.

Points to Consider in a Dairy Sire*

In selecting the sire, first decide on the breed which you think will be best suited for your conditions. Then stick to this breed. The value of the sire must be based solely on his ability to get high producing heifer calves. There are two courses open to a man who wishes to select the proper sire to grade up his herd. Select a young, untried sire and judge from his form and the records of his dam and grand dam as to his ability to transmit dairy qualities, or select an old sire that has been tried and found to have the ability to transmit milking qualities to his daughters. The desirable sire should have high producers in his ancestry. His dam, and grand dam especially, should be superior individuals, also the dam of his sire.

In studying herd records it is well to pay more attention to year records than to records for short periods of time, such as 7-day and 30-day. Although many dairymen prefer a young bull—of course there is some uncertainty as to his power to transmit dairy qualities—the most skilled breeders are often on the lookout for aged bulls, which have sired daughters of merit. They, of course, are hard to get and are often expensive because their great value is known to their owner, if he is a wise breeder. Many dairymen sell the bull for beef after he has been used two or three years without seeing any of his daughters in milk. Many good bulls no doubt are lost in this way.

There are certain characteristics of form which should be present in the sire. He should have a strong, masculine appearance, strong constitution and vitality and be a good type of the breed he represents. He should have a lean, clean-cut face, with wide muzzle, strong jaw and large bright eyes. His ribs should be long, well sprung and wide apart, giving him an open relaxed conformation. His abdomen should be large and deep with strong navel development, indicating feeding capacity and vitality. His hide should be loose, pliable, of medium thickness, not thick and meaty, nor thin, dry and papery. The rudimentary teats, which are found just in front of the scrotum, should be large, squarely placed and wide apart. This is considered very important by many judges, as a large well balanced and well shaped udder on the cow is largely due to the way the rudimentary teats of the sire are placed. If they are crowded close together, the result will be a narrow pointed udder on the daughter. When we speak of propensity, we refer to the ability which the sire has to transmit his characteristics, or those of his ancestors, to his progeny. It is indicated by the vigorous appearance and a strong, resolute bearing and an abundance of nervous energy.

It is clearly indicated that the farmer's flock, if given a fair chance, plays no small part in producing a profitable income on the farm. That many farm flocks produce little or no income is not the fault of the business, but rather of its management. With the poultry business like any other business, good management brings success. Give the hen a fair chance and she will do the rest.—L. B. Martin, Lincoln Co., Ont.

*This article is part of an information circular sent out by the Blue Valley Creamery Co. to its patrons.

Modern Means of Unloading Hay

E. Terrill, Northumberland Co., Ont.

Unloading devices are now generally used. In our barn we have put up a wooden track 112 feet long; the one in the "L" is 40 feet long. We prefer the wooden tracks on account of them being the least noisy. Each track is fully equipped so that there is no changing of cars, pulleys, ropes, etc., which is a decided advantage when one is in a hurry. We use rope slings, without slabs, taking the full length of the load. Three dratts take off a load and often do it in about three minutes. We use two ropes in the sling for hay and three ropes for sheaves of grain.

I often think how many days I have perspired under the rays of a midday July sun putting in hay the best I could in some low shed or lean-to, and then think, with a feeling of much pleasure,



A Labor Saver of the First Order

Unloading tools cost so little in comparison with the work they can perform, that no one with hay or grain in quantity to unload should think of doing without a full equipment in this line.

on the vast improvements of modern days that have made the up-to-date young farmer of today the envy of his city cousins, who acknowledge that he follows the most free and easy occupation on earth.

Raising an Orphan Foal by Hand

A. S. Alexander, V. S., Madison, Wis.

In case the mare dies or has no milk the foal may be raised on cows' milk, if the attendant conducts the work patiently and intelligently. Choose the milk of a cow that has recently calved, preferably one which gives milk low in butter fat, for mares' milk while rich in sugar, is poor in fat. Sweeten the milk with molasses or sugar and dilute with warm water. Give a little of this prepared milk at short intervals from a scalded nursing bottle and large rubber nipple. Be careful to keep the bottle and nipple scrupulously clean. Add an ounce of lime water to each pint of the prepared milk and allow half a cupful once an hour at first.

As the foal grows, gradually increase the amount of milk fed and lengthen the intervals between meals. In a few days food may be given six times a day and, later, four times daily. The foal will soon learn to drink from a pail, if allowed to suck the attendant's fingers at first.

Until the bowels move freely, give rectal injections night and morning. If the foal scours at any time give two to four tablespoonfuls of a mixture of sweet oil and pure castor oil shaken up in milk and stop feeding milk for two or three meals, allowing sweetened warm water and lime water instead. Let the foal lick oatmeal as soon as it will eat and gradually increase the amount

and add wheat bran. In five or six weeks some sweet, skim milk may be given and the amount gradually increased daily until, in three months or so, it may be given freely three times a day in place of new milk. The foal at this age also will be eating freely of grass, grain and bran.

At all times supply pure cold drinking water. Let the foal run out in a lot of grass paddock for exercise. Acustom it to being handled daily. Feed small quantities of nutritious food often, keeping all food vessels clean, and the foal should thrive and develop well.

Second Hand Machinery—Is it Worth While?

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

Shall we, or shall we not, buy second hand machinery? Many of my brother farmers do not stop to consider this question. They buy the cheap second hand machinery wherever and whenever it is offered, provided they have any possible future need for it. Some of the second hand machinery such as can be picked up at auction sales is little the worse for wear and will often give good satisfaction and prove to have been good value for the money. To buy any of the great bulk of the farm machinery that is sold at auction sales, however, is a losing business; and this statement applies with double force to such intricate and delicate machinery as binders, mowers, tedders, disc delivery rakes and cream separators.

A PREMIUM ON NEW MACHINERY.

The western farmers put a premium on new machinery that is often overlooked by us eastern farmers who are nearer the place of manufacture and hence can more rapidly secure repairs. One westerner of my acquaintance who keeps three seven-foot binders, sells one of them every third year no matter how good it may be and buys a new one to replace it. He says that there is always someone looking for a cheap binder and by keeping his binders housed while not in use, the paint is still fresh on them and they sell for a very good price. He told me that he would not risk going into his crop with an old machine because the delay of one or two days might mean a loss to him sufficient to cover the cost of several new binders.

Another western farmer of my acquaintance who was talking about his mowers said, "There are many mowing machines used long after it would pay to replace them with new ones. Time is money. A man cannot afford to work with any cutting machine that will not go right along without stopping to clear the machine or to put on repairs."

What is true of a western farmer applies, possibly to a lesser degree, to us farmers here in the east. We cannot afford to run an old mower that has to be backed up and given a running start when it comes to heavy grass. We cannot afford to run a binder that misses occasional sheaves or that does not tie perfectly. With a hay tedder that calls for repairs each half day it is run—and there are many such—the time lost and expenses for repairs would pay big interest on new and up-to-date machinery, which is capable of doing the best possible work and for which the manufacturer must be responsible until the machine has proven its efficiency and worth.

There will always be, in all probability, men who will jump at the chance of buying second-hand machinery. There will always remain countless farmers who will use old machines much after they should be consigned to the scrapheap. These men will pay for their folly in good hard cash. The more progressive of us, however, will continue as we have done in the past to recognize the superior value of brand new and up-to-date machinery—the kind that can be relied upon to do its work well and whenever called upon to do that work.

Stupendous Loss From Neglected Implements

Mac. C. Cutting, Associate Editor, "The Farmer," St. Paul, Minn.

One of the most stupendous losses that our farmers are bearing is directly the result of their own negligence and carelessness. The ravages of insects and diseases on their crops and the disastrous effects of drouth, hail and frost, they are not responsible for, and the battle against such ad-



One Good Way of Cultivating Corn

verse conditions must be energetic and continuous if they are to reap the benefits of their farming operations. But there is another great drain on the natural revenues of the farm, ranking high in its effects among the conditions mentioned and far more easily remedied, for which the farmer deserves absolutely no sympathy or support, as the responsibility rests entirely on his own shoulders, and the evil can be averted only by his own voluntary action. This is the loss and depreciation in value of farm machinery due principally to wilful exposure to the action of the elements and in a lesser degree to the lack of repair equipment.

The financial loss to the farmers of America from this cause actually amounts up to the million dollars, and it is strange indeed that such a condition of affairs should be allowed to exist in this enlightened age among a class of the community noted collectively for their thrift, their industry, their hard common sense and their practical appreciation of the worth of dollars. Still more unaccountable does it appear when we consider that the farmer, who has learned the necessity of constant activity and constant attention to details in the production of profitable crops, remains undisturbed at this most obvious wasting of his profits.

THIS NEGLECT IS WIDESPREAD.

The exposure of farm machinery is not confined to a few scattered homesteads, but is evident on thousands of our average farms where the experience of years should have brought understanding, but where the plow still stands in the last furrow, to be worked around in the summer, and the binder remains where the last sheaf was cut, and the plow is plowed around in the spring. Seeders, harrows, mowers and rakes sink quietly out of sight beneath a hiding mantle of snow as though thankful to escape from the shame of their exposed position and the sneering comments of passersby.

The remedy for this condition is the storehouse or implement shed. The excuse for leaving machinery out of doors is usually that it is too expensive to build a shed; but this is no excuse at all, as the money lost by exposure in a lifetime would build a shed to house all the tools in the neighborhood, and the investment would work a permanent improvement, whereas in the other case the money vanishes into thin air. It would be cheaper, if necessary, to borrow money for this purpose, as the man in such straitened circumstances would inevitably go further into debt with

the waste of his machinery than with the cost of a shed to house it.

It is not necessary to erect an architecturally beautiful building for this purpose, but simply to build some kind of a shed that is sufficiently large to contain all the implements and tools of the farm and tight enough to protect them from the destructive action of inclement weather.

Machines for Cultivating Corn

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

There are many machines that the farmer can get along without, though it is sheer folly to do without them. On any farm where large areas of corn are grown, the two-horse corn cultivator is a machine that comes within this class. For years we cultivated from eight to 10 acres of corn each year by means of an old-fashioned one-horse scuffler. It did good work, but it was hard work on the man and on the horse, and unless the operator had a special interest in the crop, the work proceeded slowly. It became known that fairly good work could be done with an ordinary spring tooth cultivator by adjusting the teeth so as to fit the rows. We made a trial of this implement and it did the work so well that for the most part it occupied the place formerly taken by the scuffler. It had its drawbacks, however, the wheels not being the proper width apart often broke down much corn, and it required much care on the part of the driver else much damage would be done.

Finally, quite by accident, we were induced to

Cannot Afford to Be Without It

Enclosed please find \$2.00, for which give me credit on my subscription. I like Farm and Dairy very much. The various articles published therein seem to have so much of the practical side in them, coming as they do from men who have made a specialty of some particular branch of farm or dairy work on which they write. In fact, I do not see how anyone engaged in any rural pursuit can afford to be without Farm and Dairy in his home, especially since it is published at the exceedingly low price of only \$1 for 52 copies.—N. S. McLaughlin, Huron Co., Ontario

try the machine made for the purpose, and forthwith the other cultivator was laid aside never again to cultivate the growing corn. The two-horse corn cultivator is the greatest machine conceivable for cultivating corn. With its interchangeable narrow and wide points and its protecting shields, cultivation can be given as deep or as shallow, and as thorough, as suits the operator. With its swinging sections controlled by the feet of the driver, a row of corn can be followed and given the best possible cultivation without damage from covering or from the wheels breaking down the corn in the adjoining rows. Words fail one when about to contrast this machine with the old-time scuffler. Suffice it to say that aside from its superior work, the operator is enabled to ride, thereby saving his energy and inducing him to push the work along.

House the Implements.—It is nothing short of folly for so many farmers to invest so much money in farm implements and then leave them exposed to the mercy of the wind and storms. On my own farm, I have 1,700 feet of machine shed floor space. I never allow any implement on wheels to remain in the field over night, as there is a good wide lane to the whole length of the farm and a good wide gate to every field, leaving no excuse for not having farm machinery housed every night and thus saving wear and tear from storms, etc.—E. Terrill, Northumberland Co., Ont.

Decided Preference for New Machines

D. Osborne, Assiniboia East, Sask.

Whenever any of my machinery is getting out of date or is about worn out, I always trade it off, taking whatever I can get for it. I follow this practice especially with a binder. I traded off my last six-foot-out binder last year on a new eight-foot-binder. I now have four eight-foot binders and with them we cut 700 acres of grain in a little less than 10 days' time working nine and one-half hours per day.

The time that it especially pays to have good machines is when we are cutting grain. Then wages are from \$2.50 to \$3.00 a day. Time is money and we realize it when wages are high and the grain is ripe. We can ill afford then to make any stops in order to make repairs.

This year I traded my portable engine for a new traction engine. I ran the old one for seven years, and I do not remember having lost one hour of work with it or spent \$5 on it for repairs. I could not expect such results with that engine for the next seven years. It has paid for itself, however, two or three times over, so now I have purchased a new engine of the same power as the old one, paying \$1,000 on the deal. The advantages of the traction will more than pay for the difference that it took to make this deal; and then we have not as yet taken into consideration that we have a new engine that will in all probability run for seven or eight years without any expense or loss of time.

How to Destroy Wire Worms

Thos. D. McGill, Shelburne Co., N. S.

Forty years ago there were a few wire worms in a corner of one of my fields. They gradually spread and drove us from one acre to another until I was cleaned out of that field so far as a crop was concerned. I could not raise potatoes or grain on that land, as the wire worms would destroy the plants. I seeded this down to grass 30 years ago, never to touch it again, as it was so full of couch grass and wire worms.

At last I made the discovery how to destroy both the wire worms and the couch grass. So two years ago I plowed this piece of land and had potatoes on it last year. Not one potato plant was eaten nor did a spear of couch grass appear.

The way to destroy wire worms is to plow the land as soon as the grass has been cut. The field should then be kept perfectly clean by cultivating and harrowing it once a week. The second year of this practice will kill every wire worm, it makes no difference how thick they are. If the



But Here is a Much Better Way

This lower illustration shows Mr. S. A. Northcott, of Ontario Co., Ont., last summer as he was cultivating close with this way of cultivating corn have little experience with the other method, also depicted on this page.—Photo by an Editor of Farm and Dairy.

land is clear of couch grass, one will not need to harrow so often.

One season is not sufficient time to kill the wire worms, as they can exist on the dead roots of the grass; but the second year fixes them all right.

It is worthy of special mention that after spending over \$2,000 worth of the hardest kind of labor and then to fail, that after the methods I now follow, it costs me only about \$5.00 a year to kill the couch grass and to clean out the wire worms. I can show my fields to-day clear of these pests.

Lessening the Work of Hay Making*

C. E. Moore, Peterboro Co., Ont.

Why do so many farmers dread haying? It is mainly because of the hard work it occasions. That was what used to bother us. After cutting, the hay was tedded, raked and, if fairly dry, set up in coils. After a few days, these coils could sometimes be drawn directly to the barn; sometimes it was necessary to open them to dry. Under



Hay Loaders Figure Largely in the Work of Present Day Hay Making

The modern hay making machinery has made many friends in recent years. The work of hay making is greatly lessened and expediated where the loader and side delivery rake is used.

that method of handling, hay making was laborious and irksome. To-day, through the use of modern hay making machinery, the work of haying has been greatly lessened.

We have used a hay loader during the past four years. No other labor saving machines on our farm has given us so much satisfaction as the hay loader. When properly handled, it will load hay much more quickly and with less labor than when it is pitched by hand.



One of the More Recent Hay Making Tools now Coming to be a Necessity

Where a hay loader is to be used a side delivery rake also is called for, since it is not possible for the loader to work to the best advantage save in conjunction with the side delivery rake. This rake leaves the windrows light and open, so that the hay cures rapidly. It may to a great extent displace the use of the tedder.

One of our clover fields last year on which there was a medium crop, the clover was cut on a beautiful drying day and immediately on finishing with the mower, the tedder was started. About one o'clock we put it in windrows with the side delivery rake and commenced to draw in on finishing the work of raking it. That hay was the best hay we fed last winter.

ECONOMIZING LABOR.

It should be noted that this hay was handled with a minimum amount of work. And this is

*Mr. Moore is one of the leading dairymen in Peterboro County. He, with his father, Mr. J. K. Moore, succeeded in taking a good standing in the Dairy Farms Competition last year.

an important factor in these days. Any device that will economize on labor and keep down expenses such as will this hay making machinery, is an important factor in present day agriculture.

Besides the loader, tedder and mower, one other implement is needed for hay making. It is the side delivery rake. Hay cannot be placed in proper windrows for the loader with the ordinary proper windrows for the loader with the ordinary chinery, but on this point we should consider that the price of the loader and side delivery rake combined only equals that of the manure spreader, which implements so many farmers are now buying.

On our farm, where we practice dairying and keep a considerable number of cows, the afternoons in the fields are necessarily short. The old way of setting up hay was very inconvenient in that the hay was often not all set up at milking time. Now by the use of modern hay making machinery, that thing never occurs, and a large strip of hay can be placed in the barn before five o'clock, which is our milking time.

We always use two teams when hauling in the hay. No matter how many or how few hands we have, the two teams are always used. This year we are putting basket racks on our two 16-foot flat-bottomed racks. These will be placed on trucks and one man can build the loads. Another will manage the hay forks and another will spread it in the mows. A boy or a girl can drive the horse on the fork and another the team in the field. Thus with three men and two boys the two teams can be kept going and a considerable quantity of hay can be stored away in a few hours.

Thus have we solved in a large measure the problem of hay making. Ever since adopting this system, be it rain or shine, we have managed our hay crop as outlined, and we have had better hay than ever before. We have put it away quickly, saved labor to a large extent and removed considerably the old-time dread of the hay harvest.

We always cut in the morning, start the tedder right along after the mower before it is through its work. In the afternoon we place the hay in windrows with the side delivery rake and allow it to remain thus over night. In the morning we ted it again to remove the dew, and if the hay is favorable we commence to draw it in about 11 o'clock. If the weather is not suitable, we do not touch the windrows at all, and being in a green state, they can stand considerable wetting before any damage results.

There are two important points to be remembered when at the hay making. Never cut too much hay at once and do not place it in the mow with any dampness other than its own natural moisture.

Farm Machinery Up-to-date*

A. A. McLennan, Glenagarry Co., Ont.

In this progressive age when time is money and when we are all rising early to get the lion's share of the crisp dollars, it is necessary that we be up and doing when it comes to a matter of adopting labor saving farm machinery. The progressive farmer of to-day requires a full line of implements necessary to plant, care for and harvest the special crops he raises. As farmers we are becoming a race of specialists, and it is abundantly demonstrated that the farmer who gives special attention to some special line of farming is the one that is among the successful men of to-day.

EVOLUTION OF HAY MAKING.

The system of hay making has undergone great change in recent years. Today we find our more progressive farmers using the wide swath rapid cutting mowers; following these with the tedder and the side delivery rake, elevating the hay onto the wagon with a hay loader and unloading it in the barn with the horse fork and its accompanying equipment—all this work being done with a minimum expenditure for labor and being done much more rapidly than was possible when old-time methods were used. Under favorable weather conditions, one is enabled by means of this modern machinery to handle a large hay crop with very little manual labor. The old-time practice of coiling hay has been practically abandoned by many of our farmers and they claim to make better hay to-day than ever before.

While much has been done to facilitate the work of haying, harvesting has by no means been neglected. Fast cutting binders taking a swath of six or seven feet, these binders often being equipped with fore-carriages, make the farmer smile as he sees the sheaves tumble out and being brought into rows all ready for the stooker. In these days of morning and evening chores and an aggravated hired help problem, these labor saving machines are most welcome, and though costly, they soon prove to be indispensable.

OPERATES A COMPLETE LINE.

These things as outlined all apply to my own farm. We farm extensively and have a full line of the best and latest labor saving machines. Probably the first one that might be mentioned, since it is used first in the season, is the plow. On the ordinary farm, a two-furrowed plow is a financial necessity. It saves time and does more and often better work with less seed than any single plow. The 13 or 15-disc drill, speed-feed seeder is used and is speedy and accurate in sowing, and makes a better finish on every field sown than is possible with other styles of drills.

As for haying machinery, we find the long-cutting-bar mower cuts better and runs smoother over the fields and lasts longer than the shorter cutting-bar mowers. It is a great saver of valuable time, and it costs very little extra in the initial outlay. We find the reversible side delivery rake a very useful implement. With it we can go over the hay the next day after cutting in the morning, thereby tedding it, and with the same implement in a few hours gather it up in straight windrows for the hay loader. One man with a hay loader will load a ton of hay in less time than can two men without a loader. The loader also saves the time of coiling. By means of the loader and side delivery rake just as good hay can be made in half the time required by the old-fashioned way.

All this machinery must be housed when not in use else it deteriorates with great rapidity. Any progressive farmer once having invested his money in these up-to-date machines should not fail to make a further investment of a suitable shelter under which to house them. The machinery needs to be kept in first class repair if it would give good satisfaction.

*Mr. McLennan is one of the prize winning farmers in the Dairy Farms Competition of last year.

A REMINISCENCE ABOUT SOME FARM MACHINERY PURCHASES

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

Some Machines That One Can Get Along Without, But Which Afford Most Remunerative Investments—A Comparison, East and West

THE money one locks up in implements totals a very tidy sum. In fact, it almost startles an ordinary mortal to reflect upon this subject, and we go very cautiously, often far too cautiously, in adopting the new machinery that is becoming essential to the profitable working of our farms. I have in mind such implements as the



Clearing an Experimental Farm

The work of clearing the Experimental Farm at Monteth, in New Ontario, is being pushed vigorously. So far the timber has been cut on 102 acres, of which 16 are now under cultivation. When an editor of Farm and Dairy was at the farm recently, with the members of The Canadian Press Association, it was noticed that many of the stumps on the partly cleared land were being burned. The illustration shows one of them. Notice the character of the soil. One can travel for hundreds of miles in this section and see nothing but similar land. For the most part the soil is entirely free from stones.

manure spreader, the two-horse corn cultivator, the bundle carrier, and wide, fast working implements. Our experience with these things may prove of value in helping some Farm and Dairy readers to solve these problems, hence this reminiscence.

I will recall the day we got a manure spreader. We had talked of it for fully two years before, but could not make up our minds to invest \$135 in a machine that would be used only once in a while, and which we could get along without. The question of a manure spreader was a live one on all occasions when the neighbors got together. Some agreed that the manure spreader was a good investment, others thought that it would pay only on large farms.

LARGE RETURNS ON INVESTMENT.

We had upwards of 150 loads of manure a year to spread, and it did not take much figuring to convince us that by saving the disagreeable labor of spreading this manure; of having the manure spread as soon as taken to the field, rather than having it lying around in small piles awaiting a favorable opportunity to be spread; being enabled to apply the manure at any rate from three to 15 loads per acre—the manure spreader would be a good investment and would return dividends of at least 15 per cent and possibly a great deal more. So at last the manure spreader became a part of our farm, and we have never ceased to be the best day that we saw fit to make that purchase.

The machine took right from the start. It was popular with all, right from the hired man to the hired man, who, by the way, took a new interest in living when he had this machine with which to perform the unpopular but very necessary work of spreading the manure.

One of the most ingenious labor saving devices, which now has become quite common and which until a few years ago many were content to do without, is the bundle carrier—that attachment for the Linder, which means more work for the

driver but a great saving for the man who shocks the grain. Its other advantages are evident when it comes to hauling the grain, for the shocks where the carrier has been used are laid in windrows from which a load may be taken without driving over a considerable area otherwise necessary to get a load. In over-ripe grain, too, it is a great advantage, for it saves greatly from shelling, in that the falling of the sheaves is greatly reduced when the carrier is used.

WHY DID WE DO WITHOUT IT?

Considering its many advantages, it is a mystery why we did without this machine for so long a time and why so many even yet will do without it. After one has spent, say \$140 for a binder, the additional \$3 or so required to buy the carrier looks like a tidy sum, and since the carrier is one of those things which can be done without, I suppose that is why it is done without. Be it known, however, that this device on an ordinary 150-acre farm in an ordinary year will return 100 per cent on the investment; on any 100-acre farm in any year it is capable of returning dividends to several times the amount of bank interest.

Other machines in number might be touched upon in this reminiscence. But the three as dealt with are the most outstanding. As yet



Buildings on the Experimental Farm

The buildings on The Experimental Farm at Monteth in New Ontario, are here shown. Monteth is about 400 miles north of Toronto in the clay belt. The farm comprises 540 acres of land similar to that here shown. There are still 538 acres uncleared. This farm promises to be of great value to the settlers in New Ontario. It is a great country that needs to be better advertised.

the hay loader has not become a part of our equipment, though I verily believe it would pay and that we shall soon have it.

While on this strain, there is another matter that should not pass unnoticed. I refer to the introduction of fast working implements. The idea has been abroad since the early days that wide rapid working tools are suitable only for the West. Owing to the small fields, stumps and stones, it is often thought that wide implements and four-horse teams could not be worked to advantage. These conditions, however, should have no place upon the Ontario farm, for they need not be, and it is profitable to overcome them.

WIDE, RAPID WORKING IMPLEMENTS.

The implement of moderate width, and which three horses can comfortably haul, has for a number of years been growing in popularity. The man who can drive a three-horse machine, however, should be able to manage a four-horse team and a correspondingly wider machine. "Too much horsepower," I hear someone say, "and horses are high in price and expensive to keep." Yes, quite true, but on the average 100-acre farm and on all farms of larger size, at least four work horses are available. So why should not these

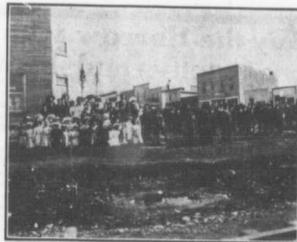
four work together and thereby save the time of one man? The four-horse team and the fast working implements are quite practical for the Ontario farm, as it is becoming to-day, and, in fact, the number of farms is increasing yearly where on four-horse teams and these rapid working implements have become even commonplace.

LAND VALUES AND MACHINERY.

While on the western prairies a few years ago, I was non-plussed to learn that farm land adjacent to the main line of the C. P. R. was selling for from \$40 to \$50 an acre. On expressing surprise that such high values should there exist, I was informed that the land was worth it, for a man could go out on it with his four-horse team, two-furrowed plows and wide implements, put in his grain with a minimum of labor and the harvest returns were such as to amply reimburse him for the investment made. I thought at the time why should these same conditions, as far as machinery and labor were concerned, not apply to the Ontario farm, for the products of which there is a much nearer market and better prices? I came back to Ontario fully convinced of the utility of all reasonable labor saving implements and farm machinery and have since been responsible for the adoption of much of the same on our Brant County farm.

We recognize the fact that these implements cannot be had without capital, and that many who would otherwise bring their establishments up-to-date in this particular lack this necessary capital. Countless others, however, have the capital and are eagerly seeking gilt-edged investments for it. To those I wish especially to direct these remarks. All told, if we farmers of Ontario are to keep in the race, we must adopt all reasonable labor saving machinery and fast working tools, and should we lack the necessary courage or capital to make these investments, we should set out forthwith to secure one or the other or both as needed.

Keeps Farmers Poor.—With care and attention—storing, oiling, painting and repairing—machinery can be maintained in good working condition three years for every one it lasts in less prudent hands. The saving in money is apparent. How far neglect of farm machinery is responsible in keeping some farmers poor would be difficult to estimate. It is a significant fact, however, that almost invariably it is the poor farmer who countenances such neglect; his more

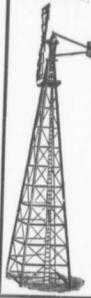


School Children in New Ontario

Some of the school children at Cochrane, in New Ontario at the junction of Temiscamingue and Northern Ontario Railroad with the National Transcontinental Railroad, are here shown. A year and a half ago there was not a child or a school in Cochrane. About eighty children turned out to see the members of The Canadian Press Association at the time of their visit recently. Some of the children are here shown. Notice how well dressed they are. They were as fine and bright a lot of children as could be found in any school in Ontario.

thrifty neighbors fully realize that such practices would work their ruin.—Mac. C. Cutting, Associate Editor, "The Farmer," St. Paul.

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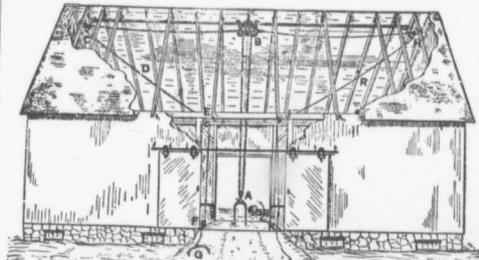
Hay and Grain Unloading Tools

H. Ralph St. Ste, Sales Mgr. Louden

Farmers in general often do not give the matter of hay tools the care and consideration they should. Because they are small machines and cost less money than binders or manure spreaders is no reason why they should not be oiled and kept in the best possible repair. The fact of the matter is, if slings are used and both hay and grain handled by the carrier, they will work as many days in the year as any of the other machines; and if they break down, as much, or nearly as much trouble and delay is caused as if a larger machine went wrong.

It is worth noting that there has been a great development in hay tools in the last few years, not only in carriers, but also in forks and slings, pulleys and tracks. For instance, take the difference between steel track and the old-fashioned wood track. The

extra durability of the steel track is above question, as is the greater ease with which the carrier will operate on the steel track, and then there is also the doing away with the fraying of the wood track, the extra space saved in the peak of the barn, and above all the way in which the carrier can be fitted to the steel track which



Full Arrangement of an Unloading Device in a Centre Drive Barn

is always exact in size, while the wood track, although it is supposed to be 4x4, is apt to vary a great deal as one sawyer is likely to saw a little above measurement, while another may saw a little below.

We should notice also the improvements in the carrier. The new triple draft carrier enables one horse to lift as much as two did with the double draft carrier, and when slings are used and the load taken up on three lifts instead of four, as with a fork, this extra lifting power is of the greatest advantage. The centre tripping pulleys with slats, and the self-locking slings tightened by the beam are a great improvement over the short slings and hand tightened ones. To mention the better way in which the rack is cleaned by slings.

The arrangement of pulleys is a matter of prime importance. In a centre drive barn, as shown in the illustration, the pulley hooks at C and H should be screwed into the collar beam as shown in the small cut. This collar beam should be spiked to the last pair of rafters from each end of the barn. On these hooks the pulleys C and H are hung. The collar beams may be 2x6 or 3x4, or 4x4 chamfered off thin at the ends, so that they can be properly spiked to the rafters. It is a poor plan to screw the hook into one of the rafters because in heavy work it is liable to pull out a single rafter.

The draft rope is shown in this illustration from the cat B, through the pulleys C, E and F to whiffletree G. When it is necessary to deposit the load in the other mow, the pulley C, which should be on a pulley changer, is carried to the other end of the barn



A Collar Beam to Support Pulley

and put on hook H. The draft rope may then go from B through the pulleys H and J, or from pulley H across to E, and so down to the whiffletree. In this way no climbing will be required after the carrier is installed.

In the end hoist barn it is better to bring the rope through a small opening in the side of the barn just below the plate and down to the ground near as can be managed to the end of the barn furthest from the hay door. The draft will then be more direct and less rope will be required.

Cares for His Machinery

Don Osborn, Assiniboia East, Sask.

I always keep my machinery under cover when it is not in use. An implement shed is of undoubted value, and it is costly to do without it, for machinery deteriorates greatly when exposed to the weather. A wagon

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LOUDEN JUNIOR SLING CARRIER

This Carrier runs on our Double Beaded Steel Track, but can also be fitted for a 4 x 4 wood track. It is the most reliable Carrier made and always holds the bundle. It is a triple draft. Write for Catalogue and Prices to:

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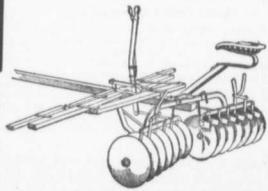
Buy the Harrow with the greatest capacity and lightest draft

The "Bissell"

Thousands of Canadian Farmers have tested the "Bissell" Disk Harrow in the same field with other makes and found that the "Bissell" has the greatest capacity and lightest draft. Because of the special shape of "Bissell" Plates they cut into the ground easier. The "Bissell" does clean work where others only scrape it or set it on edge. The "Bissell" makes a ragged job of it. Steel scrapers meeting the edges of the plates "Chisel" fashion, and "movable" clod trimmers keep the machine free from dirt or trash. The "Bissell" stays right down to its work. It won't bind, buckle or hump up in the centre, no matter how stiff or hard the soil may be. It is built to withstand the heaviest usage. A simple method of balancing the driver's weight removes neck weight. It is the harrow you should know more about. So write Dept. E, for catalogue or see your local dealer.

See roller ad. on page 19 of this paper.

T. E. BISSELL
Company, Limited
ELORA, ONT.



O.A.C. June Excursions, 1910

Monday, June 6—C. Wellington; S.

Huron; W. & N. Bruce & N. Grey.

Tuesday, June 7—N. Wentworth; E. Huron; Welland (T. H. B.).

Thursday, June 9—E. & W. Peterboro & E. Durham; Pr. Edward & E. Hastings.

Friday, June 10—Haldimand; N. & S. Perth; W. Huron.

Saturday, June 11—Lincoln; Wel-

land.

Monday, June 13—N. Ontario.

Tuesday, June 14—W. Middlesex; W. Kent; E. & W. Lambton.

Wednesday, June 15—E. Elgin; W. York; N. York.

Thursday, June 16—E. & W. Victoria; S. Norfolk.

Friday, June 17—S. Grey & E. Wellington; W. Simcoe.

Saturday, June 18—Halton (C. P. R.).

Monday, June 20—N. Oxford; W. Wellington; E. Simcoe.

Tuesday, June 21—Dufferin & E. Wellington; E. Middlesex; N. Middlesex.

Wednesday, June 22—S. Oxford; N. & S. Brant; S. Ontario & W. Durham.

Thursday, June 23—N. & S. Waterloo; Pelee; Parry Sound.

Friday, June 24—E. York.

Saturday, June 25—S. & C. Bruce & Union; C. Grey; Halton (G.T.R.).

It is rumored that Prof. H. S. Arkell is resigning his position as Professor of Animal Husbandry at Macdonald College, St. Anne De Bellevue.

I have taken Farm and Dairy for four years and like it for its dairy and agricultural reading. I enclose \$1 for my renewal.—J. F. Shaw, Norfolk Co., Ontario.

Re-Seeding Pasture—Alfalfa

Will you kindly advise me in regard to the following: I have a flat springs corner in my field that the grass is getting nearly bound out, and I want to plow it up and seed it down again. What is the best way to treat it, also what kind of grass would you stock with, the soil is mostly black (or mucky)?

Do you think alfalfa could be grown down in this province? Several around here have tried it, and they do not seem to get it started. I should like to try a small piece next spring. Will you kindly tell me how to prepare the land, whether broken up or old plowed.—E. B. Stansfield Co. Que.

Your best plan would be to let the field run through this summer till about August, then plow with a rather shallow furrow, roll two or three times,

a year-old, I would prefer the latter, since you are a year ahead to determine his value. Yearlings and two-year-olds are only an experiment at best as successful dairy sires, and if you prefer to be certain of success you must use the aged and tried sires, which, alas, is too seldom done for the best interest of dairy breeds; although not that good results cannot be obtained from young sires.

The best cow I ever raised was the first calf from a yearling sire, and it out of a two-year-old heifer. Both sires and dam were strong, vigorous animals, and so was their calf, or she could never have produced as she did.

And yet so-called authorities and college professors tell us that calves from two-year-old heifers are not worth raising. From close observation I can give stacks of positive proof that offspring of vigorous heifers and young cows are much preferable to the offspring of these same animals when past their prime.—H. Bollert, Pres. H.-F. Breeders' Assoc., Oxford Co., Ont.

Suitable Farm Power

M. E. Maybee, Hastings Co., Ont.

All things considered, where electricity is not available, the gasoline engine gives the best satisfaction as a farm power. We have a 5 H. P. gasoline engine. From our experience I am convinced that a 5 H. P. engine is about the right size where it is to be used as a power of general utility to answer all purposes. One can use a larger engine to advantage when grinding grain or when filling the silo with a blower. On the other hand, however, for running the smaller machinery, the larger power resolves itself into a waste of fuel and power.

Those of us engaged in dairying do possibly require some special power more than do farmers engaged in other lines of farming. The purposes to which the dairyman can put power are many and varied. He may grind his own grain; not that he can do it so very much cheaper at home, but it is a matter of convenience. Several different mixtures of grain may be required, one for horses, one for milk cows, one for fattening cattle or pigs, calves, hens, etc., and these mixtures to be compounded into various quantities, in which case the chopping can be handled more satisfactorily at home if taken to the nearby, or more generally distant, grist mill.

A suitable power comes in most advantageous for filling the silo and most up-to-date dairymen have silos. Now-a-days in view of the scarcity of help that prevails, we farmers need

from this line shaft. Other machines, such as the corn sheller, grinder, lathe, and it may be the churn and butter worker, might also be driven from this shaft.

Our engine is a portable one and, as may be seen in the illustration herewith, we can move it about readily and saw wood or furnish power for other purposes as desired.

The Full Percentage of Cream

Getting the full percentage of cream from milk depends as much upon the oil used to lubricate the separator as upon the separator itself. Gummy oil will cut the fine bearings of your machine, spoil its balance and waste good cream in the skim-milk pail.



STANDARD Hand Separator Oil

never gums, never rusts, never corrodes. It feeds freely into the closest bearings and insures the perfect lubrication that is essential to the free spinning of the bowl and the complete separation of cream from milk. It lessens the driving effort and lengthens the life of your separator.

One gallon cans. All dealers. Or write to

The Imperial Oil Company, Limited
Ontario Agents: The Queen City Oil Co., Ltd.

Cutting a Heavy Swath of Alfalfa

The illustration shows a mower at work in a field of alfalfa on the prize winning farm owned and managed by Mr. F. Bird-sall, of Peterboro Co., Ont.

disc harrow two or three times, performing these operations alternately, and harrow at intervals until about the middle of October, when you might re-plow or, better still, rib up as if preparing for roots. Apply manure on this ribbed land during fall, winter or spring, at the rate of about 15 tons an acre, then the next spring, as early as possible, break down, mix the manure with the surface soil and sow to mangels. This will give you the best returns from your land and put it in best shape for again seeding down.

The next year you might seed down to timothy and red top, sowing about eight lbs. timothy and 10 lbs. red top an acre, as well as about three lbs. alsike and five lbs. red clover. This will seem a heavy seeding, but you will find it an exceedingly profitable one.

As to alfalfa on the land in question, may say that it would be quite unsuitable. Alfalfa must have a deeply drained soil. Alfalfa will, however, do fairly well in many parts of Quebec, provided the proper soil conditions maintain.

The best plan is to sow after a crop of roots, potatoes or corn. To give the crop the best chance possible you should not use a cover crop but sow it alone about the end of June.—J. H. G.

Are Young Dairy Sires Desirable

Is it in the interests of the best dairying to use a Holstein bull that is not yet two years old? I would be very glad of the opinions of a high class practical man on this point, as in this neighborhood farmers seem to think that one year and a half is a sufficient age.—E. E. M., York Co., Ont.

My observation and experience, during nearly 30 years close study has long since led me to the conclusion that, individuality is a much more important factor, than age. I would prefer a 15-months-old bull, if he possessed strong individuality and vigorous constitution to a weaking even if he were three or four years old. Of course, judgment must be exercised in not overtaxing the young sire.

I am now, in my own herd, using two sires, six and ten years old, but am not prepared to say that their calves now are any stronger than those which they sired as year-olds.

The value of a dairy sire can only be judged by the performance of his heifers when they come to produce milk, and he will then necessarily be four-years-old. Since, in my experience, a two-year-old is no better than



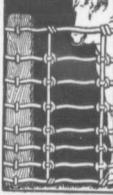
A General Utility Farm Power

The 5 H. P. gasoline engine illustrated is at work on the farm owned by Mr. E. Maybee, Hastings Co., Ont., who gives in the adjoining article his opinion of gasoline engines.

to be as independent of help as possible. When we have our own outfit we can run it with less help and at such times as help is available, or when we feel disposed to go ahead with the work. Our 5 H. P. engine is used to fill the silo, and it does the work very satisfactorily. We use 36 feet of carriers on our cutting box.

A line shaft in the barn enables us to run numerous machines from the power obtained from our engine. Our ensilage cutter in the winter is used for cutting dry feed. Our pulper, fanning mill, corundum stone, cream separator and circular saw are all run

The fence that's strong all through



Every wire in our heavy farm fence is No. 9 hard steel, with uniform strength and lasting qualities in each strand. A fence with any small soft wire in it is short lived. A chain is no stronger than the weakest link. Then PERLESS Fence made from English wire is rust-proof—that withstands more than double the endurance of other makes.

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THE PERLESS does not cost anything to keep—there are no repair bills—it is not affected by changes of temperature. The horizontal wires being crimped makes ample provision for all contraction and expansion. PERLESS Fence, when well stretched, is always tight—no shock affects it. We are manufacturers of high grade fences, poultry, ornamental fencing and gates. Write for Free Book, a sample of PERLESS Fence and a simple method of testing any make of fence.

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County _____ Province _____

Metel Shingles & Roofing Co. Montreal, Ont.

POULTRY YARD

Co-operative Fresh Egg Circles

A movement looking towards the co-operative handling and selling of eggs is well under way amongst the farmers in the vicinity of Peterboro. A number of representative farmers of the district were called together by Farm and Dairy to discuss the project, information concerning which was set forth on page 3 in Farm and Dairy last week.

Among those present at this preliminary meeting were Messrs. Sam.

This Special Issue

We anticipate that there will be a considerable demand from non-subscribers for copies of this Special Magazine Issue with its illustrated section. Extra copies, therefore, have been printed. They may be obtained for 10 cents each by addressing Farm and Dairy, Peterboro, Ont.

Our regular subscribers receive this issue and will receive another illustrated section and magazine issues without extra charge.

The next illustrated section of Farm and Dairy will be published within about a month. Advertisers will do well to apply for space at an early date.

Devell, T. Hunter, S. Matchett, C. D. Young, J. H. Garbutt, J. A. McGregor, Wilbur Bennett and C. E. Moore of Peterboro; Henry Stubbs of Bridgenorth; J. Jory, Lakofski, Mr. H. C. Duff, district representative of the Department of Agriculture, Norwood; Wm. H. Elford, Peterboro; J. I. Brown of Montreal, and members of the editorial staff of Farm and Dairy.

After discussing the project for several hours, those in attendance unanimously decided that the scheme was one of large possibilities and one admirably adapted to the needs of Peterboro County farmers. The deliberations crystallized in the form of a resolution approving of the principle as set forth and resolving that the project was such as to be heartily supported.

Elm Grove Poultry Farm

Guaranteed Fertile Eggs for sale from the following breeds: Rose Comb Brown Leghorns, Silver Gray Ducklings, Light Brahma Barred Rocks, Mammoth Bronze Turkeys, Embury Geese, Houdon Ducks.

J. N. RUTHERFORD, Box 62, Caledon E., Ont. Member of the Telephone Club of Canada Telephone 7 on 8

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TWO CENTS A WORD CASH WITH ORDER
FOR SALE - Shot gun, never used. High est grade manufactured, 25 per cent off list price. For particulars, apply to Box 11, Farm and Dairy, Peterboro, Ont.

WANTED-Cheese makers the coming season to sell subscriptions to Farm and Dairy, Peterboro, Ont. Good cash commission for each subscription taken. Write Circulation Manager, Farm and Dairy, Peterboro, Ont., for sample copies for your patrons. Samples sent free on application.

BULBS OR PLANTS - Import Bulbs and Perennials direct from Holland, at quarter price. Get import list at once. - Morgan's Supply House, London, Ont.

EGGS from pure bred Buff Orpingtons, one dollar per fifteen. Imperial Pink Ducks, ten cents each - Miss M. Gerrie, Ingersoll, Ont.

EGGS GIVEN AWAY in return for new subscriptions. A setting of two of any standard variety of fowl, given away for every new subscription to Farm and Dairy. Send to Circulation Manager, Farm and Dairy, Peterboro.

ported and worthy of being discussed further at several local points where the matter could be laid before the farmers and local producers. It was decided to hold meetings at Central Smith, Pine Grove, N. Monaghan, Stewart's and at Zion.

At the time of writing, the first meeting only, that at Central Smith, had been held. It was very successful, and much encouragement was thereby given to the movement. The other meetings as announced will be reported fully in the columns next week. Those present at the Central Smith meeting, after the project had been laid before them and freely discussed, decided that it was in their best interests to organize. To that end most of the farmers present signified their intention of supporting the scheme and elected a provisional board of directors to complete the work of organization.

The Care of Ducklings

Duck eggs require 28 days for incubation; Muscovy eggs being the only exception to this rule, they require from 30 to 32 days in some cases. The ducklings should be fed when 48 hours old a dry mash of corn-meal, bran and ground toasted bread or crackers. A little sand added to this ration takes the place of the later oyster shells. Feed it sparingly dampened on boards laid flat in the runs or near the old hen that broods the bunch.

Little ducklings are always hungry and must be fed for the first week every three hours. Be sure that no food remains after feeding, as it will sour and cause lack of appetite, often followed by watery stools. A good way is to have two feeding boards for every flock, and to clean the one just used with a stiff brush and to dry it in the sun, while the other is in use.

The drinking water may be given in small shallow can tops or dishes, which are first partially filled with pebbles, preventing the little fellows getting into it if they are not careful. They will be able to get enough water from between the pebbles.

Ducks love green food, and if their yard is large of such, waste greens from field and garden should be thrown into it. Nothing suits a duck better than to waddle along the banks of a stream in search of food of the animal as well as vegetable kingdom. Give them their liberty and they will certainly select the best share of their daily ration and return to the old homestead at night with a crop full of choice morsels. In such a case I would feed them nothing but whole corn at night, as this stays longer with them. - R. L.

Co-operation in Denmark

If evidence were required for the contention that poultry keeping would be of increased value to English farmers by a system of co-operation, the facts which Denmark supplies should be the last word needed, for the wonderful success which has attended experiments in that country is as great as any English farmer could wish for.

The conditions in Denmark for poultry farming are not so good as those in England, and in addition to this the size of Denmark is only half that of our own country. Yet Denmark exports annually more than a million pounds' worth of eggs to this country.

The export trade from Denmark is so good and the prices obtained are so high that the Danes themselves use Russian eggs for their own consumption. So far back as 1905 104 million eggs were imported into Denmark from Russia, and the laws of Denmark make it quite impossible for these eggs to be re-exported.

Until the year 1864 the poultry trade in Denmark was as neglected as it is in England today. At that time the only hen known in Denmark was the Danish land hen, which was only a moderate layer, and whose eggs were very small.

The conflict with Prussia made the Danes turn their attention to some means of economic development. They determined to increase the resources of the country by the production of, among other things, eggs. In 1875 the Leghorn breed of fowl was introduced, and is now the national bird.

The following table shows how the Danish export trade in eggs has increased:

Date.	Value.
1867	£1,800
1877	51,388
1886	262,514
1900	561,444
1909	1,038,329

The success of the egg trade in Denmark is due principally to co-operation among small farmers and peasants. Everyone in Denmark keeps a few hens, but they combine to market their produce at the cheapest possible rates.

The National Poultry Organization are trying to establish the same meth-

ods of co-operation among English poultry farmers. The adoption of co-operation among English farmers and others and the cultivation of poultry would restore to England the whole of this Danish trade in a very short time. - The Dairy.

Hens Lay Soft Shelled Eggs

What is the cause of hens laying soft shelled eggs, the hens being fed whole corn, wheat and buck-wheat, with free access to sand and old plaster? - W. S. Oxford Co., Ont.

The cause of your hens laying the soft shelled egg is due probably in a large degree to their food ration. We would advise you to leave out the corn and buckwheat and give your fowls a free run. Evidently they are too fat, caused from the heavy feeding suitable for cold weather, but not for the summer months. Small rations of wheat and oats would be more suitable than the former mixture. - J. I. B.

CROP PROTECTION

The Gun for the Farmer

You can protect the acres of corn and oats or whatever you grow, from the crows and other pests that are such a nuisance to the farmer. Weasels, Gophers, Hawks, Blue Jays, Rabbits, Woodchucks, etc.

Here's a Repeating Rifle that you can shoot 15 times without re-loading.

List Price, \$8.00



Two models: The first takes fifteen .22 Short cartridges - 22 Short, 22 Long, and 22 Long Rifle, but the greatest accuracy is obtained in this model by using .22 Long Rifle cartridges.

The Stevens Visible Loading Repeating Rifle is guaranteed to be most accurate .22 Repeater made.

It is rifled with the care and precision that has made the name Stevens famous all the world over. It shoots straight and it hits hard. There is no Repeater at the price that has the work and finish which is put into the Number 70.

List Price, \$6.00



The Stevens Favorite No. 17 is the best known single shot .22 calibre Rifle in the world. There are more Stevens Favorites made than any other single shot. This is the gun that has made the Stevens reputation.

If you are looking for a good Shotgun at a moderate price, write us, and we will send full details and price list. We make shotguns (Single and double barrel hammer and hammerless) that you can buy at prices listing from \$7 up to \$50. Our No. 520 Hammerless 6-shot Repeating Shotgun is a marvel at the figure. (List price, \$27.00.)

Besides shooting with the very best pattern and penetration, the Stevens No. 520 has a feature which no other repeating shotgun has - **IT IS THE ONLY REPEATING SHOTGUN MADE THAT CAN BE OPERATED AS EASY AS THE HUMAN HAND CAN MOVE WITHOUT DANGER OF BAKING.** This is because the empty shell and the loaded shell travel by separate routes - they cannot meet.

DO YOU WANT TO BE A BETTER SHOT

It's the fine points that make the big difference between the expert and the ordinary shooter. Experts don't give away these points they spent long years to get. But it's to our advantage that present and future users of Stevens rifles and shotguns become expert shots. We employ some of the world's crack shots. They know all

the little kinks - the fine points that get them big scores. Do you want these short cuts to expert shooting? Then write us what interests you - rifle shooting, the trap, or field shooting. Our answer goes the day your letter comes, gives you practical suggestions on how to improve your style and accuracy.

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Little Scout, No. 14	\$2.25	Favorite No. 17 (The Only Boy's Rifle, Stevens-Maynard Jr., No. 15	\$3.00
Crack Shot No. 16	4.00	used by Men)	\$8.00
(For Young Shooters, made for real work.)	4.00	Visible Loader No. 70	\$8.00
		Ideal Rifle No. 71 (Man's heavy Single Shot Rifle.)	\$10.00

FARM AND DAIRY

AND RURAL HOME

Published by The Rural Publishing Company, Limited.



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

2. **SUBSCRIPTION PRICE, \$1.00 a year, strictly in advance.** Great Britain, \$1.25 a year. For all countries except Canada and Great Britain, add 50c for postage. A year's subscription fee for a club of two new subscribers.

3. **REMITTANCES** should be made by Post Office or Money Order, or Registered Letter. On all checks add 25 cents for exchange fee required at the bank.

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6. **WE INVITE FARMERS** 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 \$300. The actual circulation of each issue, including copies of the paper sent subscribers who are but slight-ly in arrears, and sample copies, varies from 5,000 to 10,500 copies. No subscriptions are accepted at less than the full subscription rates. Thus our mailing lists do not contain any dead circulation.

Several detailed statements of the circulation of the paper, showing its distribution by countries 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 advertiser's reliability. We try to admit to our readers only the most reliable advertisements. Should any subscriber have cause to be dissatisfied with the treatment he receives from any of our advertisers, we 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 the circumstances warrant, we will expose them through the columns of the paper. Thus we will not only protect our readers, but our reputation as advertisers as well. All that is necessary to entitle you to the benefits of this Protective Policy, is to include in all your year ad in Farm and Dairy. Complaints should be sent us as soon as possible after reason for dissatisfaction has been found.

FARM AND DAIRY

PETERBORO, ONT.

ECONOMY IN FARM MACHINERY

The farm labor problem, which in many instances in recent years reached an acute stage, has worked its own solution. Fewer men are now employed than formerly on the average farm, and such men as are capable of handling several horses attached to fast working implements and machinery are the kind wanted. Men of such capabilities cost more to hire than do the average sort, but they are worthy of their hire, as Mr. Anson Groh ably points out in the article on page three of this issue.

That we as farmers generally are coming to a fuller realization of this idea is evidenced in the great and growing amount of machinery that we now believe to be necessary on any well equipped farm. Those of us today who are making the greatest headway and who are the strongest believers in the farm as affording an all-round life work are the men who adopt all reasonable labor saving machinery and devices which have been placed upon the market.

A man advanced the opinion recently to an editor of Farm and Dairy that farmers have been getting alto-

gether too much machinery. With the exception of only a few individuals, he was wrong. No better investment can be made than that of the recently invented labor saving machines which are now becoming common and the great value of which is attested by the very fact that 80 many of them are being bought by our conservative, hard-thinking farmers.

The aim to-day should be to transfer all the labor possible from the man or men to horses and to the various forms of labor saving devices and machinery. To do this is true economy. For this reason it often pays to look carefully through the catalogues of the manufacturers of farm machinery. They nearly all contain helpful suggestions. Why not write for the catalogues of some of the firms advertising in this issue of Farm and Dairy. They are furnished free and may prove of value to you.

CONDITIONS OF THE EGG TRADE

Seventeen per cent. of the eggs gathered by the largest produce firm in Canada are consigned to the dump. This represents a great waste. The loss, owing to transportation charges, labor, commissions of various middlemen and other similar causes, is much greater than the current market value of this quantity of eggs. Who bears this loss? It is not, as a rule, the produce firm.

The principles upon which our egg trade is conducted are radically wrong. The loss that results is caused by the neglect of many trifles which when summed up make a large aggregate. The producer is not the only one at fault. One illustration will serve to fix the responsibility for part of the trouble and loss elsewhere. A leading produce merchant in the city of Peterboro last week was making a specialty of fresh laid eggs. He put them in his window immediately behind the plate glass. Shortly after noon the sun was shining directly on these eggs. The temperature they were in must have ranged about 100 degrees for most of the afternoon. Under such conditions it would not be long before those eggs would be ruined. The merchant did not realize that the germs in the eggs were being started well on the way to incubation and that every moment they remained in the window they were rapidly deteriorating in quality.

How much fancy butter could that merchant have sold at the current market price had he put it in the window beside those eggs? The corners of the prints would soon have rounded off, and the quality be lost. No merchant would think of exhibiting eggs have shells, although their quality is as rapidly destroyed, they are frequently exposed in this way.

There is much to learn about the egg business by dealers and merchants as well as by the producers. A general campaign of education has long been due. In order to market eggs at the best possible price, the farmers in several districts near Peterboro are organizing into co-operative fresh egg circles.

Mention of this is made in the poultry department of this issue. The market for their produce is assured. The movement is worthy of hearty support. Farmers elsewhere will do well to follow the example being set by the farmers of Peterboro county.

NEGLECT THAT TENDS TOWARDS POVERTY

How long does some of our more expensive and most important farm machinery last? How long does a binder last? How much service can we get from a manure spreader, a side delivery rake, a hay loader? These are questions we all ought to ask. The answer would invariably be, "Not as long as they should." In many cases the failure of this machinery to last anywhere near the time it should helps to keep its owners poor.

How long does a binder last? From one to three months will take in its average life of usefulness! Ten days is time enough to cut the grain on the average farm each year. In six years this would amount to two months; in 12 years, four months; and there are few binders, speaking generally, that are not consigned to the scrap heap long ere that time.

This remarkably short life of the binder—the same is true of some other machines—is due almost wholly to neglect. Failure to house the machinery when not in use, failure to oil it well and often, failure to keep it in the best repair, these three work its ruin. Oil is the cheapest commodity that will help to preserve machinery we can buy; repairs are very expensive when done without, and a suitable implement shed in these days of much expensive machinery affords one of the best investments that can be made.

INTERESTING COMPARISONS

The results of experimental work based upon the value of the cow, milk, butter fat, calf and manure, and also upon the cost of feed, labor, depreciation on cow, interest, taxes, housing, etc., indicate that under ordinary farm conditions and with the product sold on the common market, a cow must produce approximately 4,000 lbs. of milk and 100 lbs. of fat to pay for the feed and labor. In other words, this is the dead line. Cows producing less than this are kept at a loss. For every 1,000 lbs. of milk produced above 4,000 lbs., the cow returns a profit of \$10.

These figures, which are advanced by Wilbur J. Fraser, Chief in Dairy Husbandry at the Agricultural Experimental Station, Urbana, Ill., afford a ready means whereby we can figure out the approximate profit from the milk of any cow under ordinary conditions. Valuing the milk at \$1.00 a 100 lbs. a cow that produces 10,000 lbs. of milk, returns a profit of \$60, or six times as much as the cow producing 5,000 lbs. of milk. A cow producing 5,000 lbs. of milk brings in a profit of \$10, while the cow producing 8,000 lbs. of milk returns \$40, or four times as much; or in other words, 10 cows producing 8,000 lbs. of milk would return as much profit as 40 cows producing 5,000 lbs. of milk,

and the former involves only one-quarter the labor.

It has been said, "The very strength of the dairy business is its weakness." Because it is so generally remunerative people have come to believe that money can be made at it no matter how conducted. It would seem that for the most part many are quite content to rest in this belief rather than take the necessary steps which are so simple and cost so little to find out just what profit each cow makes. In view of the plain facts that have been brought out in recent years relative to the possibilities of dairy herd improvement, there is small wonder that the cow testing movement is making headway; the great wonder is that it does not progress more rapidly.

CO-OPERATIVE OWNERSHIP OF FARM MACHINERY

Labor saving machinery helps us as farmers to reduce the cost of production of farm products. The inventive genius of man has provided machines to such an extent that now there is scarcely any operation ranging from hoeing to the more complete work of turning the sod or driving the threshing machine but what can be done with modern machinery. This machinery is expensive. So much of it is required nowadays that an outfit complete represents a tidy sum, often much more than can be afforded or what one would willingly expend. Many of these machines, although expensive, result ultimately in the trust of economy. Their utility cannot be gained. Often it is only a question of time when some particular machine, or set of machines, will be installed; were these put to use at an earlier date they would result in good returns on the investment. In order to affect this earlier purchase it frequently is advisable to co-operate with neighbors in the purchase of machines and in this way make possible the profitable use of a full line of farm machinery.

The co-operative principle applied in this particular has its disadvantages, to be sure, and unless one's neighbors are of the right sort, he might well hesitate before purchasing farm machinery on a co-operative plan. Possibly the greatest difficulty lies in the fact that what is everybody's property is nobody's property, and the machines are given indifferent care, often abuse. This difficulty may be overcome in a small circle of three or four neighbors by each one being responsible for a given machine, it to be his property and his especial charge no matter on whose farm it is working.

In the case of such machinery as that specially designed for particular crops, such as potatoes and hay, silo-filling and threshing machines, or even the manure spreader or binder, co-operative ownership is possible, and such will often prove the most profitable. Some of these machines would pay, owing to small acreage, only when owned on the co-operative plan. In such cases it would be well worth while for farmers to give the question consideration.

ILLUSTRATED SECTION

Issued
Each Week

FARM AND DAIRY & RURAL HOME

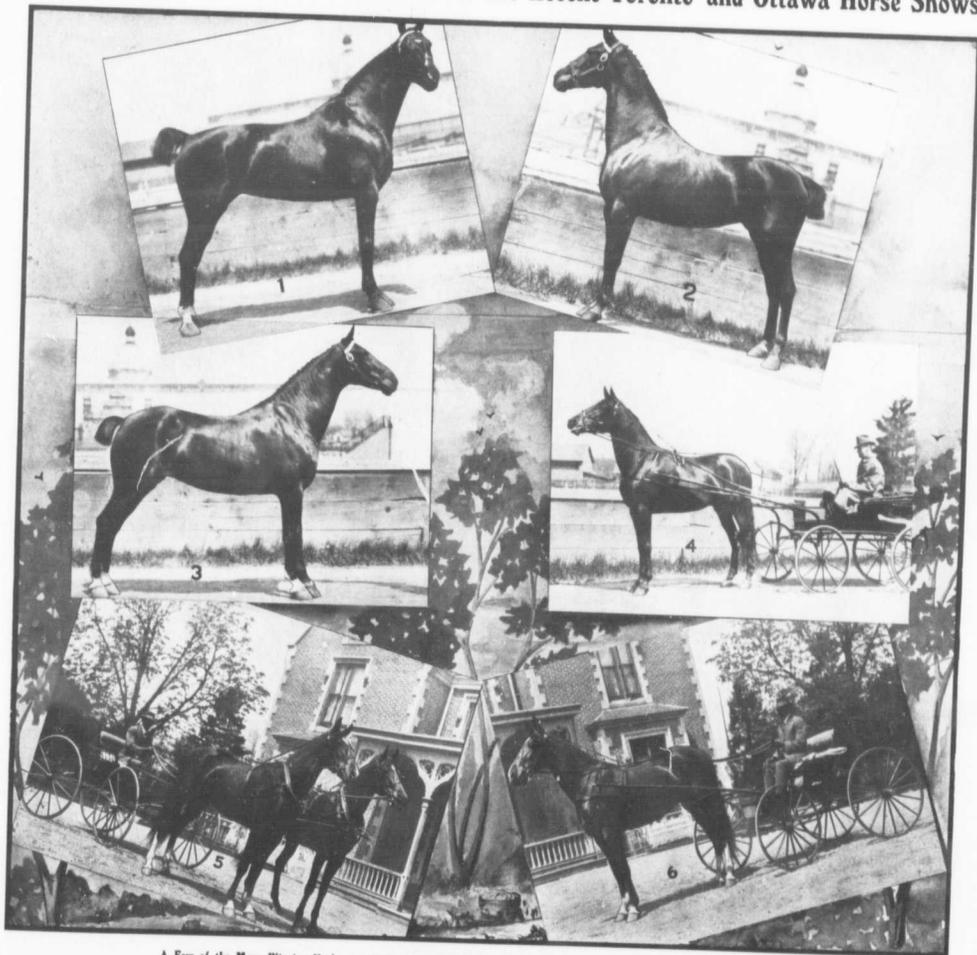
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Vol. XXIX.

FOR WEEK ENDING JUNE 2, 1910.

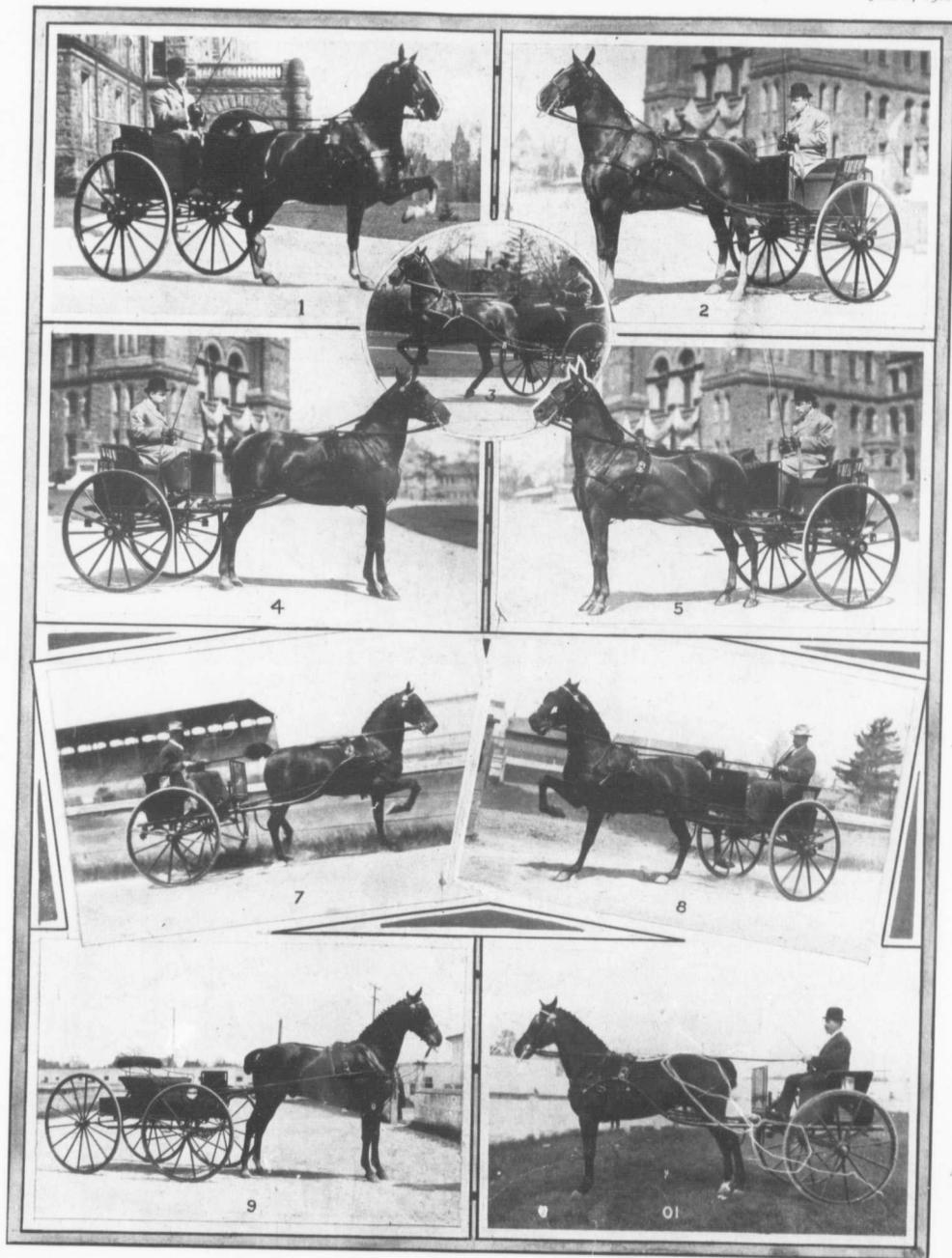
No. 22

Prize Winning and Champion Horses at the Recent Toronto and Ottawa Horse Shows



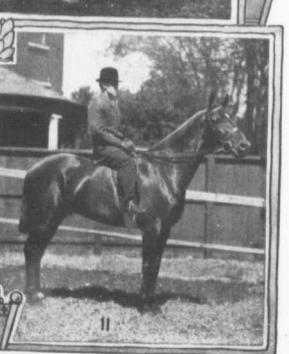
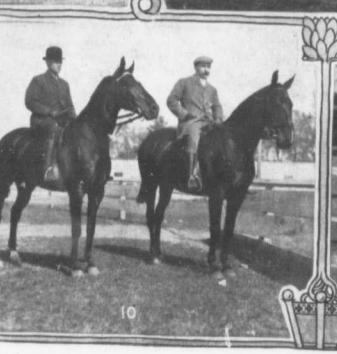
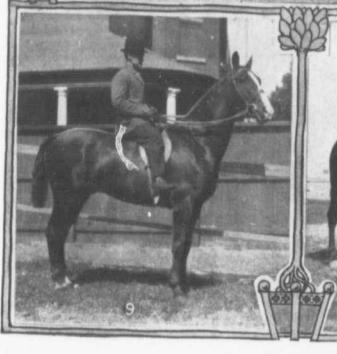
A Few of the Many Winning Hackneys and Roadsters of Cruickston Stock Farm, Galt, Ont., Property of Miss K. L. Wilks.

No. 1.—Black Princess, black mare. No. 2.—All Ablaze, chestnut mare. This pair of mares, 16 hands high, are splendidly matched and have grand style and action. They have won over 50 prizes driven, single, double and tandem. No. 3.—Coldegring Everline, imported hackney bay mare, 15 $\frac{3}{4}$ hands. Winner of second prize in high stepping class at the Ottawa Horse Show. No. 4.—Okom Belle. No. 6.—Moko Bird, in order given, won first and second in single roadster class at the Ottawa Horse Show. Okom Belle also won the championship at the Toronto Horse Show, in the same class. They were first and second at the New York Horse Show in 1909. No. 5.—Moko Bird and Okom Belle as a pair, winners of the first prize at the Ottawa Horse Show.—All photographs taken specially for Farm and Dairy.



Winning Hackneys of the Ennisclare Farms, Oakville, and of the Derby Stock Farm, Simcoe, Ont.

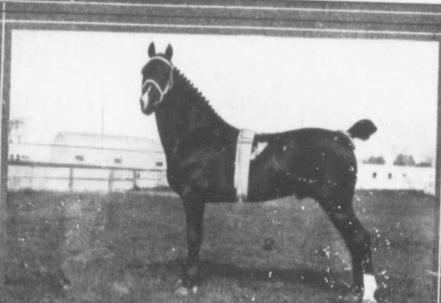
Nos. 1 and 2—Lord Myrick, chestnut gelding, 15.3%. Notice his practically faultless action. Nos. 3 and 4—Lady Warwick, chestnut mare, 15.2%. No. 5—Lady Grosvenor, chestnut mare, 15.1%. These three animals shown by the Ennisclare Stock Farm, Oakville, Ont., and owned by H. C. Cox, Esq., of Toronto, with one or two other animals from the farm not here shown. Nos. 7 and 8—King Chocolate, bay stallion, 15%. Note his exceptionally fine action. The champion Hackney stallion on the line at the Ottawa Horse Show and champion harness stallion at both the Toronto and Ottawa Shows. No. 9—Day Dream, bay gelding, 15%. The champion Hackney stallion on the line at the Ottawa Horse Show and champion saddle horse at Ottawa. No. 10—Candy King, bay gelding, 15.3%. Winner of first prize in the 15.2 harness class at the Toronto Show. All three animals were shown by the Derby Stock Farm, Simcoe, Ont., are owned by Mr. A. E. Yeager, who is driving.—All photographs taken specially for Farm and Dairy.



The Imported and Canadian Bred Hunters of Hon. Clifford Sifton, M.P., of Ottawa

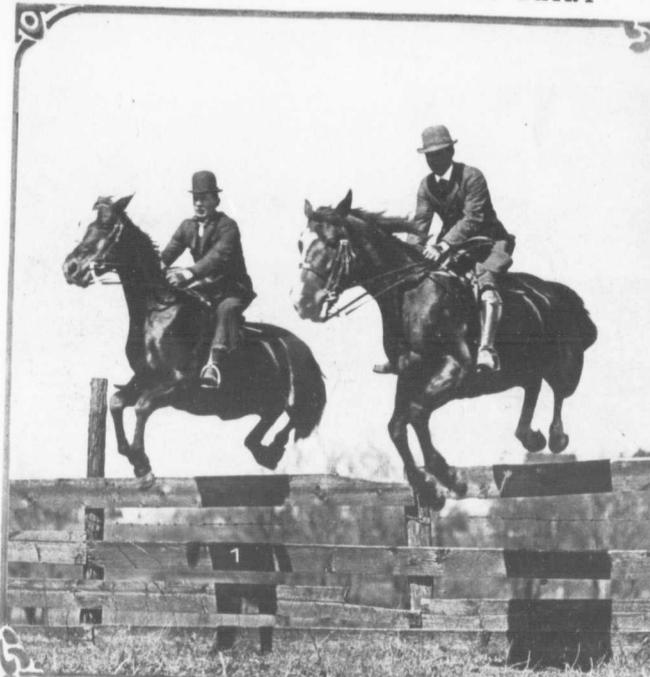
The interest Hon. Clifford Sifton is taking in hunting horses is likely to mean much to the interests of this class of horse in Canada. Nos. 1 and 2.—Hon. Mr. Sifton on Brown Bess, heavyweight hunter. Second in the Military Jumping Competitions, Toronto Horse Show. Nos. 3 and 4.—Master Victor Sifton, on Dick, winner of Gill Cup in green steeple-chase at Ottawa Hunt Club races. No. 5.—Clifford Sifton, Jr., on Wellington. Nos. 6 and 11.—Hon. Mr. Sifton's hunting groom on Glenwood, lightweight hunter, winner of many ribbons. No. 7.—Hon. Mr. Sifton on Adonis, English heavyweight hunter. No. 8.—Sportsman, an Irish heavyweight hunter. No. 9.—Hon. Mr. Sifton on Brown Bess and Glenwood.—All photographs taken specially for Farm and Dairy.

June 2, 1910.



Some Exceptionally Fine Animals that Did Well at the Toronto and Ottawa Horse Shows

No. 1.—Tislington Playmate (Imp.), Pony Stallion, a likely winner at the Ottawa Horse Show, had it not been called off. No. 2.—Paramount (Imp.) Hackney Stallion, dark bay, winner of second prize, Ottawa Horse Show. This animal has exceptionally fine action. Both animals are owned by Senator W. C. Edwards, Rockland, Ont., and were trained by W. Jones, who is shown in the illustration. No. 3.—Grace, chestnut mare, 15 1/2 hands, a winner of several prizes, and shown for the Governor-General's prize, at Ottawa Horse Show. (See Gossip.) Owned by John Sherriffe, Rockland, Ont. No. 4.—Yapham Fashion, the great English champion colt, winner of 54 firsts in England and first in high steppers class, Ottawa Horse Show, and probable winner of the championship had it not been called off. Owned by Senator E. Both, Bowmanville, Ont. No. 5.—Torrington Frisket (536), a prize winner in England and in the ladies' drivers class, Toronto Horse Show. Owned by J. H. Kennedy, Toronto, Ont. No. 6.—Earl King, Earl, brown gelding, 16 hands, winners of first and second prizes in very strong competition at both the Toronto and Ottawa Horse Shows, in class for single harness horses attached to delivery wagon. Both animals owned by Dominion Express Co., Toronto.—Photographs taken specially for Farm and Dairy.



The Big Demand Now Is For A SANITARY Cream Separator



The vast importance of sanitary methods in separating cream from milk is now recognized by the most up-to-date dairymen in the Dominion. The proof of this fact is evidenced by the great number of unsanitary separators that have been replaced this season with EMPIRE Separators, which are known as the world's most sanitary separators.

The six smooth cones of the Frictionless Empire haven't a notch or a crevice in them. They are as easy to clean as an equal number of glass tumblers. They can always be kept sweet and clean. That is why the cream separated by the FRICTIONLESS Empire is FIRST quality—the kind that makes the most delicious butter.

You believe in sanitary methods, therefore send to-day for our BIG DAIRY BOOK which fully explains the superior sanitary (and other) features of the Frictionless Empire (cone method) and Empire Disc Separators.

EMPIRE Line Of Cream Separators

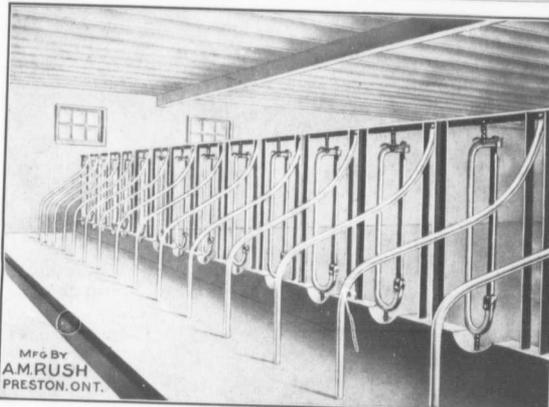
run easily, skim to a trace, require little oil, have fewer wearing parts, and give lasting, satisfactory service.

**The Empire Cream Separator
Company of Canada, Limited**

Winnipeg, Man. TORONTO, ONT. Sussex, N. B.

Some of the Jumpers that Won Honors at Both Shows and Two Well-Known Officials

No. 1.—Two of the prize-winning jumpers owned by Hon. Adam Beck, London, Ont., shown at both shows. No. 2.—Miss Davies, on the Wasp, a noted high jumper that has jumped as high as seven feet, shown at both shows. The classes for jumpers were the most largely filled of any. As high as 30 animals competed in some of the jumping contests, which always aroused great interest on the part of the spectators. Most of the ladies who took part managed their horses with remarkable skill. No. 3.—George W. Beardmore, President Toronto Horse Show. No. 4.—Capt. R. J. Birdwhistle, Secretary, Ottawa Horse Show.



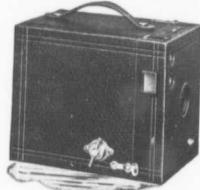
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AMRUSH
PRESTON, ONT.

THE MONEY YOU MAKE

Depends on how you handle your cows. Cow comfort, safety, convenience and big profits go hand in hand with users of Rush's Sanitary Iron Stalls and U Bar Steel Stanchions. My 1910 Stanchion has all the new features that a stanchion requires. Iron frames made up of angle iron and piping ready to be bolted together, takes only a few hours to set up. The cost of these stalls is within reach of every cow owner. Diagrams and plans free. A post card with your name and address will bring it, together with my special price direct from factory to station. Write:

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Box 127
PRESTON, - ONT.



Large Pictures, Small Cost.

In this servicable little Camera we have simplified picture taking to the last degree. It loads in daylight with Kodak Non-Curling Film Cartridges for four, six or twelve exposures, has a fine meniscus achromatic lens, automatic shutter for snap-shots or time exposures, with set of three stops, has two finders and two tripod sockets. Takes pictures 2 1/2 x 4 1/2 inches, and is well made and finished in every detail. Anybody can take good pictures with this camera without previous experience. The price is \$4.00. Ask the dealer to show you the

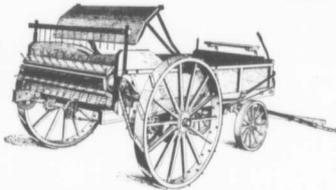
No. 3 BROWNIE

"The King of the Brownies," free at the dealers or by mail.
CANADIAN KODAK CO.
LIMITED
TORONTO, CAN.

AN INVESTMENT - NOT AN EXPENSE

A **MASSEY-HARRIS SPREADER** on your farm will enable you to apply the manure when it will do the most good, even if help is scarce, for it is a great labor and time saver.

It spreads the manure over more acres, because



it is so thoroughly pulverized that all of it is available as a plant food and need not be applied so thickly as would be necessary with hand spreading. It makes possible the top dressing of field crops, which is usually the most effective method—the first rain carrying the fertilizing elements down into the soil.

On meadows and pasture lands it makes it possible to apply the manure so as to be of the greatest possible benefit—renewing the fertility without losing the use of the land for a time.

IT WILL SOON PAY FOR ITSELF OUT OF THE INCREASED CROPS.

MASSEY - HARRIS CO., Ltd.

TORONTO, MONTREAL, MONCTON, WINNIPEG, REGINA, SASKATOON, CALGARY.

THE GENUINE TOLTON

Patented '85, '87 and '90.



HARVESTING PEAS

PEA HARVESTER

With New Patent Side-delivery Self-buncher at Work.

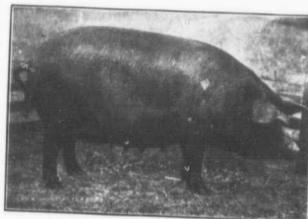
Harvesting from 10 to 12 acres per day in the most economical and complete manner. Harvesters to suit all kinds of mowers. A wrench is all that is required to attach it to any mower. Every machine warranted. Our motto: "Not how cheap, but how good." Give your orders to any of our local agents, or send them direct to

TOLTON BROS., LIMITED, GUELPH, ONTARIO.

Well Drilling

I drill a 4 1/2 inch hole; work done summer or winter; pumps and fixtures always on hand. I guarantee water. Fifteen years experience. Right gauge line and steam drilling machines, your while if needed by notes. Worth Time given to write for terms and prices this year, to

ARTHUR CAMPBELL
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Tamworth Swine
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PRIZE WINNERS
AT MANY FAIRS

A. C. HALLMAN - BRESLAU, ONT.

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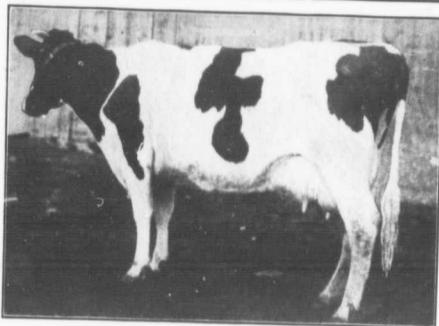
are everything that plaster, wood and wall paper are not.

Metallic Ceilings are fire-proof, absolutely. Metallic Ceilings don't crack or crumble—don't get damp or moldy—don't need repairs.

Metallic Ceilings are far-and-away the most economical building material you can put in a house. You don't believe it? We can prove it. Write us for the facts.

The Metallic Roofing Co.

MANUFACTURERS Limited
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RHODA'S QUEEN No. 4831

The first cow to complete a record in Record of Performance Test.
NEIL SANGSTER, Ormstown, Que.
 BREEDER OF CHOICE HOLSTEINS.

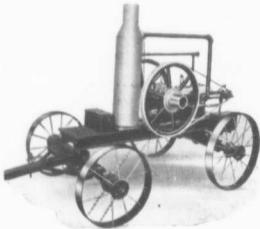
The "IDEAL" GASOLINE ENGINE

Is in every respect exactly what its name indicates. It is a perfect engine for

FARMERS

and there is not a job on the farm where power is required, which it will not adapt itself to perfectly. This unique engine is made (Stationary or Mounted) from 1 1/2 to 50 horse power; is guaranteed in every detail to be constructed of the very best quality material and by skilled conscientious workmen.

We are also makers of Gasoline Plowing Engines from 20 to 35 h.p.



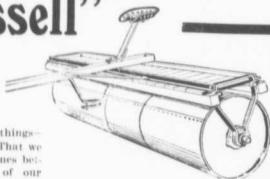
Write for Catalogue if interested

Goold Shapley & Muir Co., Ltd.
 250 Princess St., Winnipeg Brantford, Ont.

Pack Your Soil with

The "Bissell"

Making land rollers is a "side line" with some manufacturers. But with us it is our life work. For nearly a score of years we have concentrated all our efforts on the manufacture of just two things—land rollers and disc harrows. That we know how to make these machines better than others the records of our machines in field competitions is abundant proof. When you purchase the "Bissell" Land Roller, you secure a roller that will pack your soil better—a roller that is unbeatable for crushing stiff, lumpy soil. The three short steel drums are easy to turn. It rides easy. The position of seat prevents jars and jolts. Because of the large roller bearings and because the axle revolves with



drums, friction is reduced to the vanishing point. The "Bissell" is the lightest draft, as well as the easiest riding and smoothest soil packer on the market. For further particulars, ask Dept. R. for catalogue, or see your local dealer.

See Harrow ad. on page 8 of this paper.

T. E. BISSELL COMPANY, Limited
 ELORA, ONTARIO

SOUR MILK

Weather is at Hand

Loss in the Dairy is certain, where a MELOTTE CREAM SEPARATOR is not used.

It saves work.

Increases the Product and Value Profit by protecting yourself, and Buy a Melotte, thus avoiding a Loss at this and all seasons of the year.



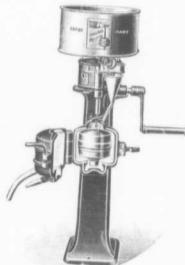
Capacity 280 - 720 lbs. per hour

The Melotte Cream Separator Works equally well in any climate.

The Melotte is acknowledged to be the highest classed machine by experienced users in Canada and all over the world.

The Melotte has proved itself to be the most efficient Cream Separator made. TRY ONE at your own farm.

WRITE DEPT. A,



Capacity 400 - 1300 lbs. per hour

R. A. Lister & Co., Limited
 STEWART ST. TORONTO

ALL HORSE-COLLAR TROUBLES Now Prevented or Quickly Cured



Every horse owner who will now consider the practical in valuable time and horseflesh by using a set of Humane Horse Collars to prevent all collar troubles, will certainly buy a set. Or get a set to cure your sore horses while they work. The success of the Humane Horse Collars for the past three years proves this. Investigate.

HUMANE HORSE COLLARS

It is a fact that only one set of Humane Horse Collars on a farm will CURE UP and KEEP CURED of collar trouble all your horses. DON'T use "sweat pads"—it's cruel—especially in hot weather—injures your horses, and besides, the sweat pads COST YOU MORE THAN MOST COLLARS before you get through. You DON'T NEED them with these collars.

Every set comes complete with short tugs and ready to use—less trouble to put on and take off—and FIT ANY HORSE PERFECTLY ALL THE TIME by simple adjustment. Built to last for years by expert workmen, and durable materials.

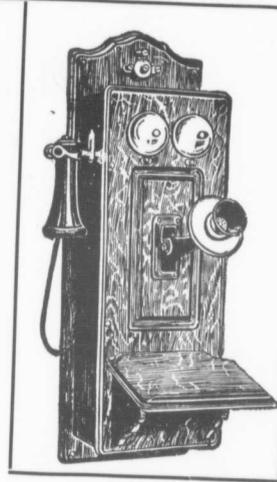
DON'T THINK OF BUYING HARNESS UNTIL YOU WRITE OR FULLY INVESTIGATE THE HUMANE HORSE COLLARS.—GET OUR BOOK FIRST.
Whipple Horse-Collar Co., Ltd. HAMILTON, ONTARIO.

Independent Telephones

Have made a record for quality. Why? Because all that was up-to-date and the best experience and ability was utilized to full advantage when we undertook to make telephones for the Canadian Independent Telephone Companies and Associations. We started with up-to-date ideals, established a high standard of quality, and have maintained that standard.

THE RESULT

The result is that we have now hundreds of companies, associations and municipalities using our telephones, and we are daily securing as new customers, those who had been using other makes of telephones. They are changing, not on account of our price, for we maintain our price because it is essential to quality. They are changing because they have either made a trial of our telephones on their own lines or have heard the good opinions of others who were using our telephones. It is quality that is winning the business for us.



THE QUESTION

The question for you to decide is whether you are getting the best value in the telephone you are purchasing. You may get a telephone that will cost a dollar or two less but has not got the standing quality. It very soon becomes a source of constant expense and trouble to keep it in repair. The question should be decided when you are purchasing whether you are getting first-class quality in your telephone. It will pay you to make sure of this. This being the fact, we would ask you to write us if you are putting new telephones on your lines or if you are starting in the business and likely to purchase. We shall be only too glad to discuss the matter with you and submit prices.

CONSTRUCTION MATERIAL

If you are extending your lines or if you are organizing a company and starting into the business, it will pay you to let us quote you on construction material. We carry a large stock constantly on hand, and make a specialty of prompt shipments. We send out nothing but first-class materials.

FREE OF CHARGE

We shall be pleased to send you a copy of our **No. 2 Bulletin** if you are about to build a line. It gives you full instructions in regard to construction work. We also will be pleased to send you a copy of our latest book, entitled, "**Canada and the Telephone**," which contain thirty-two illustrations of the value of the telephone in the rural home. These will be sent free of charge at request.

PROMPT SHIPMENTS AND GUARANTEED SATISFACTION ARE MAKING OUR SUCCESS.

CANADIAN INDEPENDENT TELEPHONE CO.

18-20 DUNCAN STREET, TORONTO

LIMITED

Treatment of the Foal at Birth

A. S. Alexander, V. S., Madison, Wis.
Attend to the navel cord (umbilicus) as soon as the nose of the foal has been cleared of afterbirth. If possible then avoid tying the navel cord. It is best for it to break off naturally. If it fails to break and the mare is lying down, make her get up and the cord may then break.

If found necessary to tie the cord use a clean, disinfected string. A dirty string may cause infection. Soak the string in a five per cent. solution of lysol or carbolic acid, or a 1:500 solution of corrosive sublimate (Lichloride of mercury). Tie the cord



A Town in New Ontario

One of the streets in Cochrane in New Ontario, is here shown. Cochrane has sprung into existence as though by magic. A year and a half ago there was hardly a building in it. To-day it has several streets, a school, a bank and a six-room hotel is under course of construction. Notice the level nature of the soil. The whole country round about is similar in character.

one inch or a little more from the belly; then sever the cord with a clean knife. An emulsator or eraser (castrating instrument) may be used to sever the cord in place of tying it and then cutting through below the knot.

THE DISINFECTANT.

Saturate the stump of the navel cord immediately, whether tied or not, with the following disinfectant: Powdered corrosive sublimate, two drams; boiling water, one pint. When it has cooled, color the solution with two drams of tincture of iron, label the bottle "Poison" and keep it out of the way of children. Repeat the application twice a day until the cord shrivels up, drops off and no raw spot remains. To keep the solution from blistering the foal's belly smear carbolized vaseline or unsalted lard around the navel before making the first application.

A good way to use the solution is to put some of it in a shallow, wide-necked bottle, then hold the bottle against the foal's belly with the navel stump immersed so that it will be completely covered by the fluid. If the navel cord has been tied remove the string as soon as possible, squeeze out the blood clot and instantly soak the navel stump with the corrosive sublimate solution. Use the solution twice a day until the navel is perfectly healed. Remove sloughing portions of the cord each morning, so far as possible, to allow the solution to wet all raw parts of the cord.

GIVE ATTENTION TO THE BOWELS.

A strong foal will be on its feet and trying to nurse in less than an hour from birth. Such a foal needs no help, but a weak one will have to be helped up to suck until strong enough to do so without help. Wash the udder of the mare with a lukewarm two per cent. solution of coal tar disinfectant and then rinse off with warm water before the foal is allowed to suck for the first time. The external organs (genitals), tail and hind parts of the mare should be washed with a similar solution once a day for the first week or so after the birth of the foal. Keeping the udder free from infective matter in this way tends to

prevent the foal from scouring, for that condition of the bowels often is due to germ infection of the intestinal tract by way of the mouth. Disinfection of the navel cord also tends to prevent scouring. At birth the intestine of the foal contains a sticky mass of fecal matter (meconium). This should come away promptly and usually this is accomplished by the first milk (colostrum) which possesses purgative properties. To assist nature, either insert a small tallow dip candle (made for this purpose) in the foal's rectum, or, within an hour from birth, give an injection of either warm water, warm slippery elm bark tea, flaxseed tea, sweet oil, or a mixture of equal parts of cream, molasses and warm water, and repeat in 12 hours if required.

Harm may be done by injecting a large quantity of strong, soapy warm water with an ordinary "horse syringe." A fountain syringe is to be preferred and a small, hard rubber nozzle, or a small, clean rubber hose and funnel. Smear vasoline or lard on the nozzle and in rectum before giving the injection. If the bowels do not move within 24 hours from birth and the foal seems sick, shake up two to four tablespoonsful of pure castor oil and sweet oil, according to size of foal, and give as one dose. Then continue the injections at intervals of six hours.

Jersey Breeders' Outing

The summer session of the Canadian Jersey Cattle Club will be held at "Hawthorne Lodge," the home of Messrs. B. H. Bull & Son, Brampton, Ont., on Wednesday, June 8. Every Jersey breeder or fancier and dairy farmer generally could not do better than remember this date and pay a visit to the home of the famous Brampton Jersey herd. The Brampton Farms comprise over 600 acres immediately adjoining the corporation of Brampton, and the Brampton Jersey herd is the largest herd of pure bred cattle ever owned in Canada.

The hospitality of Messrs. B. H. Bull & Son is well known to all stock men. We can leasepeak for every farmer or dairyman who attends the meeting a hearty welcome.

Messrs. B. H. Bull & Son's new importation will have reached home and



A Bridge in New Ontario

The bridge across the Mattagami River, on the Transcontinental Railroad, in New Ontario, is here shown. The river is about 600 feet wide and is quite deep. It flows into James Bay. All the country round is well watered. There is room for hundreds of thousands of settlers in this section and the best of land for all. Land may be secured adjoining the railway.

will be on view, as will also their stock prior to being shipped to the Calgary exhibition.

Scours in Calves.—Never give milk to a calf in a dirty pail. Dirty pails, milk are the principal cause of scours in calves. A good remedy for scours is to quit giving skim milk, but give a pint of new milk, in which is stirred a small handful of powdered charcoal. Continue this treatment until the calf recovers.—H. Johnson, Middlesex Co., Ont.



STINGY!

The Farmer who gets every piece of labor-saving machinery possible for field work and lets his wife grudge along with cans and crocks in the Dairy, is mighty mean. A

DE LAVAL Cream Separator

Makes the Wife's Life Worth Living

FREE CATALOGUE

THE DE LAVAL SEPARATOR CO.

175-177 William St.

MONTREAL

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VANCOUVER

SUMMER PREMIUM TALK

THIS USEFUL FOOD CHOPPER GIVEN AWAY

CHOPS EVERY VARIETY OF FOOD

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| Meats | Vegetables | | GRATES |
| Fruits | Nuts | | Horseradish |
| | PULVERIZES | | Cocoanuts |
| Crackers | Stale Bread | | Chocolate |
| Spices | Etc. | | Etc. |

Save Yourself Work This Summer

Send us Three New Subscribers to Farm and Dairy, at \$1.00 each, and we will send you Free, this excellent Food Cutter, complete.

DESCRIPTION.—It has only two parts, the case and the roll, and can be taken apart for cleaning.

Four knives are supplied with each machine: to cut coarse, to cut fine, to pulverize, and to make nut butter. Substitution of one for another can be made without taking the cutter apart. Any particle of food which can be cut with a chopping knife, can be minced with this machine more quickly, quietly and thoroughly. Working against the steel disk the knives sharpen themselves. The cutters are nickel-plated; all other parts of the machine heavily tinned. Constant use keeps the cutters sharp.

Circulation Manager

FARM AND DAIRY
PETERBORO, ONT.

Creamery Department

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

The Only Just Way

Editor, Farm and Dairy.—There is a law in several of our States, including, in fact, nearly all the leading dairy States, requiring that samples of cream for testing be weighed rather than measured for testing, and it certainly is a just law in every way.

Where cream is tested by measuring with a milk pipette, not only is there a loss from the cream having a lower specific gravity than the milk, but a considerable quantity adheres to the inside of the pipette, and further, there is a considerable amount of air mixed in by pouring the cream, in preparing the sample, which tends to reduce the amount going into the test bottle.

We take the view in this State that every man is entitled to have samples of cream that are taken for test from that which he supplies to the factories tested in an accurate manner: the only way to do this is to weigh out the sample. There is no difficulty at all for any person of average intelligence to do this weighing.

A considerable amount of cream used in Missouri is purchased through agents in small towns, and most of these agents are local storekeepers, and some handle but a small amount of cream, but at the same time they are able to use the scales without any trouble. It takes a little more time than when the pipette is used, but the average creamery operator is as competent to weigh the sample as he is to carry out the remainder of the test.

The scales used are much more delicate than those which ordinary workmen are accustomed to, but there is no difficulty experienced in our factories on this account, and the scales do not have to be renewed any oftener than scales used for other purposes.

The farmers in this State would not be satisfied with a test made by pipette and I think they are entirely justified in taking this position. We are behind them in making such a demand.—C. H. Eckles, Professor Dairy Husbandry, University of Missouri.

Progress in Creamery Work

Mock Robertson, Creamery Instructor, St. Mary's, Ont.

Conditions this year are much in advance of those that prevailed at the same time last year as regards creameries in that district or group of creameries under my charge. While we have had a great deal of backward weather, still the spring opened out earlier and growth is much ahead of the season of 1909. The temperature within the last few days has risen. The ground has abundance of moisture and growth has been very rapid.

To illustrate in a practical way the advance in the amount of butter being made in excess of the same time last year, I might give one or two examples. One creamery, which does not operate in the winter opened for business one week earlier this season than it did last. The first week it operated it manufactured 300 pounds butter more than it did the first week last year. Another creamery, which made only 7,000 pounds of butter altogether for the month of May, 1909, has already made more than that amount this May and the month, at the time of writing, is barely half over.

Regarding the prices which are being realized for the finished product, well, I have yet to meet the salesman who did not look the picture of health and happiness. Never have prices ruled so high for this season of the

year. The last week has brought them down, however, to summer values and no doubt it is better for the trade in general. The tension on the nerves of the consumer has relaxed and again he breathes more easily.

While the creamery men in my district are by no means perfect, owing to the fact that, like the instructors, they are recruited from the animal species known as human beings, still I feel quite justified in claiming for them that they are on the whole a very progressive lot of men. Once convinced that a certain method is right they lose no time in adopting it. Three years ago 19 creameries in this district were using the oil test for cream testing. Today the Babcock test greases every creamery excepting four. Formerly those men would argue the good points of the oil test, but today they simply try to find some plausible excuse as to why they are still using the old out-of-date oil test. We hope soon to say good-bye to the remaining four.

THEY ADOPT THE SCALES.

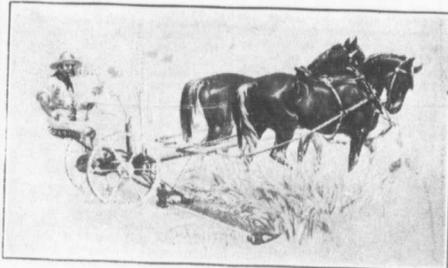
Again the scales in connection with the Babcock test, for weighing instead of measuring the test samples is comparatively recent advance in creamery practice. It takes some time to introduce new methods, yet I am glad to be able to tell you that 16 out of the 30 creameries in this group have purchased scales, almost 50 per cent., which is very satisfactory indeed. Of the remainder some are like the old Scotchman who said "he was open to conviction but had yet to meet the man who could convince him."

Altogether our creameries are progressing very favorably. While the season's make of butter is as yet in the hands of the weather man, we hope and look forward to an abundant harvest in the cream and butter field.

Up-to-date Agriculture.—I am sending my renewed for Farm and Dairy. It is a valuable agricultural paper, and I can endorse what many others have said of it in respect to its value to the agriculturist. Farm and Dairy is, without doubt, one of the best and most up-to-date agricultural papers in circulation. I would not be without Farm and Dairy for twice the price of it.—W. C. Silkey, York Co., Ontario.

After the experience of the last few seasons an effort will be made by farmers here to a large extent to provide green feed for the cattle after the pastures are done. At least two silos are to be built this summer, perhaps

THE HELP THE FARMER LONGS FOR



Is Supplied by a Peter Hamilton Mower BECAUSE

It will cut ALL the grass whatever its condition or the condition of the surface of the ground. It is exceptionally light in draft. It can be stopped and started in the heaviest clay. The pull is direct from the draft. The till lever has lots of range of movement. The bearings are all equipped with Roller Bearings or Removable Bushings. The FOOT LIFT is convenient, easily operated, and is balanced by a lift spring. THE GEARS are in perfect mesh and have lots of power.

THE CUTTER BAR

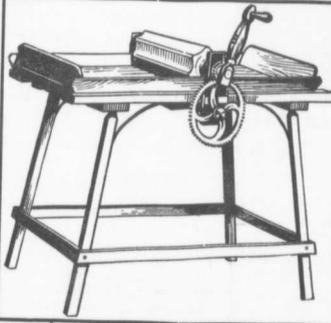
is flexible. Will cut close at any angle. Is made of heavy steel substitutes which when worn can be replaced, thus giving the new wearing surface for the knife bar. The Pitman is long and has a direct easy stroke and is well protected by the drag bar from stones, etc. Before buying a mower be sure and see the agent and find out what a good proposition can be offered by

THE PETER HAMILTON CO., LIMITED PETERBOROUGH, ONT.

FOR SALE

For \$30.00 I can sell you the best automatic lift drop head sewing Machine. For particulars apply to W. B. ROBERTS, Sparta, Ont.

more. Those who already have them are well satisfied, as by ensiling the corn crop it provides a large amount of cheap, succulent feed. Leslie Tennant, Brant Co., Ont.



THE NATIONAL BUTTER WORKER

THE NATIONAL MFG. CO., Ltd. - Head Office, OTTAWA
FACTORIES—Ottawa and Brackville
BRANCHES—Regina, Sask., Edmonton, Alta., Muncato, N.B.

Write to us for full particulars; we will gladly give information and send our Booklet Free on request

THE Butter Worker made for Practical Butter Makers—that's the National! The National Butter Worker, built entirely of hard wood, is unquestionably the most practical butter worker sold in Canada to-day, and is in use in the leading dairies of the Dominion. Every dairyman and farmer who makes butter owes it to himself to know more about the superiority of this practical device—it's a matter of dollars and cents on the profit side of his books, to own a National.

Twent
corn,
rectly
year
logue.
RUT
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CANAD

Cheese Department

Makers are invited to send contributions to this department, to ask questions on matters relating to cheesemaking and to suggest subjects for discussion. Address letters to The Cheese Maker's Department.

A Prosperous Farmers' Factory

J. F. Ketcheson, President Zion Cheese Factory.

The photos reproduced herewith are of the Zion Cheese Factory situated on Lot 12, in the 8th Concession of Thurlow, Hastings Co., Ont. Last season our make of cheese sold for \$37,000. Our factory is owned by stockholders. It is well equipped with steel vats, steel presses, agitators, and with all up-to-date machinery.

The piggery as illustrated is in connection with our factory. It has a capacity of 500 hogs. It is divided into two pens, each one being 40 ft. by 80 ft., and is fitted with cement floors, troughs and gutters. The roof is self-supporting, no scantling running from the floor to the roof.

Last season we sold \$14,000 worth of hogs, 1,200 hogs having passed through the pen. This year our business was, \$14,000 for hogs in eight months, \$37,000 for the cheese manufactured in eight months, a total of \$51,000. This sum was divided amongst 62 patrons after expenses were subtracted. Our patrons all live within a radius of three by one and one-half miles of the factory.

Pay Each Patron His Due.

Alex. Thompson, Peterboro Co., Ont.

Where milk is paid for at a cheese factory on the basis of the pooling system, a man who sends skim milk, or milk low in butter fat, gets as much for that milk as does his neighbor who sends milk much richer in butter fat, and which therefore is worth much more. There is surely

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nothing fair about such business, and it has always been a surprise to me that more of the cheese factories of Peterboro County and of Eastern Ontario do not pay by test, or I should put it, that any factory would countenance the pooling system at all.

Let us figure this matter out on the basis of the figures from the Eastern Dairy School quoted in the editorial in Farm and Dairy, April 7. We find that 325 pounds of milk testing three per cent. yielded 37 pounds of cheese. An equal quantity of milk testing 3.8 per cent. fat yielded 35.5 pounds of cheese—a difference of 8.5 pounds from the richer milk. This valued

Since then if a patron chooses to send his skim milk to the factory, he gets skim milk prices for such milk and no more. He is not permitted to share in any part of the proceeds which rightfully belong to other patrons who send rich milk.

Of course we have a few kickers who would rather that we pay for milk by the pooling system. We have a good competent man with us, however, who has his diplomas, etc., and who knows his business and we get along very well indeed. The majority think that the fat-plus-two is the right way to pay for the milk and this majority always carries the day when it comes



Piggeries Run in Connection with the Zion Cheese Factory

These two pens have a capacity of 500 hogs. Last year 1200 hogs passed through them, which brought in a gross return of \$14,000.

at 11 cents a pound comes to over 90 cents more than the cheese realized from the three per cent. milk. Figuring this difference upon the basis of 100 pounds of milk, we find that milk testing 3.8 per cent. of butter fat is worth for cheese making approximately 19 cents a cwt. more than milk testing three per cent.

SHARE IN OTHER'S PROCEEDS.

It goes without argument that the man whose cows produce the richer milk should receive this extra 29 cents that it is worth per cwt. more than the milk from his neighbor's cows which test three per cent. It is a patron's own fault if he is content to allow his neighbor to share in that part of the factory proceeds which rightfully belongs to him.

I was surprised to learn from Farm and Dairy that there are so many cheese factories in Eastern Ontario still paying by the pooling system. It would seem that patrons have not given this matter the attention that, in their own interests, it deserves.



A Prosperous Farmers' Cheese Factory

The illustration shows the Zion cheese factory in Hastings Co., Ont., which last year did a business of \$51,000.

They have perhaps, left it for the makers to decide, and as paying by test makes more work for them, we cannot expect them to be very enthusiastic over abolishing the pooling system. The matter of how the proceeds of the factory shall be divided is one that almost wholly is the patrons' concern. If the matter is to be put right and if paying by test is to be universal in Ontario, each patron must speak up and assert his rights demanding that pay by test be adopted at his factory.

PAID BY TEST FOR OVER TEN YEARS.

At our factory, of which I am president and salesman, we have been rid of the pooling system for years. Some 10 or 12 years ago by a popular vote, we decided to divide the proceeds of the factory by the fat-plus-two method.

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Farmers' wives know that only Sharples Dairy Tubular Cream Separators are free from the disks and other contraptions used in all common machines. The woman who must wash the separator will not approve the purchase of any common machine even though the agent may misleadingly claim it is simple or easy to clean. Such agents care nothing about causing women needless care and trouble. Women have good reason to send such agents flying. Why not? Washing 40 to 60 disks is no pleasure and women are wise to avoid it.

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have no disks, yet produce twice the skimming force, skim twice as clean, skim faster and wear longer than common separators. The World's Best. The manufacture of Tubular is one of Canada's leading industries. Sales

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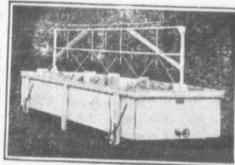
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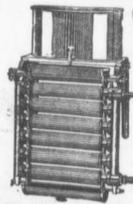
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THE great thing in the world is not so much where we stand, as in what direction we are moving.

—Holmes.

The Turning Point

By Philip Verrill Mighels.

(Concluded from last week.)

HE stepped on the cage, with Bixby at his side, and was lowered away, ten hundred feet deep, in the velvet blackness of the hole. Three days the gambler had been working in the mine, and the camp kept his secret from his mother. For three days Blawd had vainly sought a way to even up the score he felt must be squared between himself and Watson. The sooner it was settled the better.

To-night, when he finally overheard the tale of Mrs. Watson's presence in the camp, he was inwardly burning with pleasure. The midnight shift would soon go on, a score of men. The miners were assembled at the shaft when Watson came in with his pail. His face seemed even more white than before. He was tired, tremendously tired. His hands were blistered and bruised. His body was lame from over-labor.

Blawd had been waiting. Bixby had not yet appeared. As Watson limped quietly into the group, nodding in silence to acquaintances, the shift boss advanced a yard to meet him, glancing him over with scorn.

"So, you slick-fingered gent," he said, "you thought you'd hide with honest men, did you? Wanted to look like a decent citizen awhile? Thought you could make your mother believe you was earning your money on the square and no more thievin', hey?—and come here to work up the game? Oh, you certainly did have your plans all laid out slick."

Watson faced him without a sign of the anger and pain of his being.

"Haven't I done the best I could?" he said. "I know I'm not much of a miner."

"Much of a miner!" mocked the big boss sneeringly. "Much of a cheat is more your size—cheatin' at cards and cheatin' at work and cheatin' your mother like a sneak! And once you had me throwed outside your roost of robbers, busted flat—and to-morrow you bet you'll git your pay when I go and tell your mother what you are and how you've been earnin' your livin'."

A hard, bright gleam had come in Watson's eyes. He looked at Blawd unflinchingly.

"Don't try it, my friend, or you'll never boss a shift again," he said quietly. "What games you've got to play with me you'll play without dragging in my mother."

Blawd was not the stripes of man to accept a psychological struggle. He laughed as he thrust his big face forward, insultingly close to that of Watson.

"Maybe your mother's no better than you—" he started when Watson cut him short.

He struck a quick, hard blow with his fist, and Blawd went sprawling on the floor.

Instantly up, unhurt and eager, the fellow leaped back with crushing weight and force, laid hold of his man

with remarkable agility, landed a blow that staggered Watson's senses, then hurled him in violence upon the floor just as Bixby came in upon the scene of brutality.

"What's this? What's going on?" the superintendent demanded. "Haven't I told you, Blawd, I'd give you the bounce if I ever caught you fighting here again?"

Watson arose, weak and dizzy. He could never have been a match for the boss, and exhaustion had sapped him of strength.

"It wasn't all Blawd," he admitted fairly. "I opened the ball myself."

Bixby shrugged his shoulders and went on his way.

The cages were presently shot from the depths with the men who were leaving the works. Crowded together and holding on above, the midnight shift, with Blawd and Watson included, went down in the earth to their lalors.

Watson was working in a large, untimbered chamber, pushing a car. Beyond him Blawd, with a crew of skillful men, was bracing a bulkhead where a mass of earth, for three days soaked by unprecedented rains, was bulging softly inward on the drift. The danger here had been heightened by the fact that the rain had percolated through from many of the other shafts and drifts, saturating tons on tons of gravel.

Hour after hour passed with Blawd

fighting back the gigantic pressure of the hill. He was not merely stubborn in his labors, he was also an excellent miner.

Back and forth, meanwhile, Watson was plodding with his car. He was fetching heavy timbers, trundling out debris, taxing his muscles for more than their worth, but doggedly remaining at his task.

It was some time early in the morning that the Titan of earth broke his bonds. With a sudden crunching and crumpling of the heavy beams with which the great bulkhead was being reinforced, the masses of water-soaked earth and rock moved inward like a tidal wave of mush, carrying all before it.

Sounds of rending and the minivells made fearful alarm in the chambers. Timbers as thick as a wall were shivered and splintered. The bridge-like structure that Blawd had built came down like a trestle of straws. The lights of three of the candles went out—and Blawd was caught beneath the wreckage.

Bawling in fear that the roof of all the drift would be in on them, came after cave, the miners ran wildly to make their escape and left their boss, Blawd and unconscious.

Watson was coming with his car. He met the men fleeing for their lives in the darkness that was feebly illuminated by the candles on their caps, the and animals that Blawd had been gasped out their tale and their wailing in a breath and fled on to get to the shaft.

"Come back here! Come back!" yelled Watson to the leaders. "If Blawd's in the cave we must get him!" He caught at one of the miners going by and clutched him by the shirt.

"Never mind! Blawd! What do you care for him?" said the miner, wrenching loose. "It's all coming down! Git out!"

No thought of Blawd, as Blawd, was acting in Watson. A man was in there, underneath that mass and a bare chance remained for his rescue. That was the appeal to Watson.

Leaving the car and once more shouting to the men, Watson ran onward in the drift. He was soon confronted with the wreckage. Half revealed only by the candle at his forehead, the scene was appalling to behold. It looked as if some of the stuff would drop in there any moment, blotting the tunnel from existence.

On two or three timbers the mighty weight was hung, and these were fairly groaning with the burden. They were bent till two were visibly cracking underneath, the white gleam of newly breaking pine growing longer every moment.

Beneath a dumping of earth and gravel Blawd, stretched prone upon his face. A red stain had trickled from his hair.

Watson laid hold and began to tug him out. The strength he exerted was almost superhuman. He dragged the great bulk of inert humanity almost free, then discovered that one of Blawd's feet was crosswise of a hole beneath a timber.

Downward the great beams were sagging with the mountainous weight laid upon them. Frantically hauling, then kneeling on the rocks and reaching far under to turn the boss's foot, Watson was winning in his struggle.

He dragged the big form free at last and stepping in over the helpless form, deftly boosted him up from the rear. Over at last he rolled the timber, bulk, and himself fell headlong in the effort. Out went his candle.

A wooden sort of shriek, as if the snirt of the forest itself, whence the timbers had come, rent the silence of the place as the beams were split, trembling under tension, and in upon Watson dropped a ton of stuff and buried him, all but his shoulders.

Out of his sore, exhausted body went his breath. For a second a feeling as

Midzpah

The Lord watch between me and thee,
when we are absent one from another.

Gen. 31:49

Go thou thy way, and I go mine—
Apart, yet not afar;
Only a thin veil hangs between
The pathways where we are,
And "God keep watch 'tween thee and me,"—
This is my prayer.
He looks thy way, He looketh mine,
And keeps us near.

I know not where thy road may lie,
Nor which way mine will be;
If thine will lead through parching sands,
And mine beside the sea.
Yet God keeps watch 'tween thee and me,
So never fear;
He holds thy hand, He claspeth mine,
And keeps us near.

SHOULD wealth and fame perchance be thine,
And my lot lowly be;
Or you be sad and sorrowful,
And glory be for me;
Yet God keeps watch 'tween thee and me,
Both are his care
One arm round thee and one round me,
Will keep us near.

I sigh, sometimes, to see thy face,
But since this may not be,
I'll leave thee to the care of Him
Who cares for thee and me.
"I'll keep thee both beneath my wings,"—
This comforts, dear,
One wing o'er thee and one o'er me,
So we are near.

AND though our paths be separate,
And thy way be not mine,
Yet coming to the mercy seat,
My soul shall meet with thine;
And "God keep watch 'tween thee and me,"
I'll whisper there
He blesseth thee, He blesseth me,
And we are near.

—Julia H. Baker

of one in his bed, sleepy, and with heavy clothes upon him, came like a Lalm across his consciousness, and then he knew no more.

It was Bixby, stern-faced and angered at the woman-fear had driven running from a comrade, who came to the drift with a crew of picked men and set them to work at the wreckage. He was fully as well aware as they of the menace of rock, roof and walls. He knew they might all of them perish in a wink of time, and that nothing could very long delay the utter demolition of the tunnel.

Nevertheless, he forced them there and for half an hour they labored frenziedly to save the two half-buried men, lying helplessly unconscious.

Blawd they were presently enabled to drag away with comparative ease. Watson had moved him from the jaws of adamant beneath which, otherwise, he must certainly have been crushed.

But Watson himself was wedged, as in a grave, between the rocks and timbers. In deadly fear that all would be entombed at that moment, the men strove madly and at length cleared the way and lifted up their burden and escaped.

Ten minutes later the roof and walls came in with a dull reverberation.

There were two hundred men, all rough, crude sons of gentle mothers, who stood with their hats in hand, one day, as the stage was made ready to depart. Aboard were two passengers only—Watson and the little white-haired woman, whose arrival in the rain had marked out a turning point, steep and hard to follow, in the midst of the blackness and the mud.

Soberly, one by one, the men came forward to bid the two good-bye. Watson's hand they nearly wrung from his wrist; his mother's they touched with gentleness and awe.

Blawd was the last to come forward. His face was twitching. "Frank," he said, "if ever you need a friend—"

He could say no more. He turned and ran away.

Selecting Meats

By Emma Paddock Tolford

(Concluded from last week)

One of the points brought out by the American Beef Producers' Association, whose outlined aim is to make the available supply of beef go as far as possible in supplying the demand, and speedily increase the supply to a point where the growing demand of the country can be met on the price basis that will encourage the maximum consumption, is that through ignorance 80% of the beef consumers are demanding cuts from the loins of the carcass which constitute only about 25% of the supply. As a result of this unequal demand, cuts from the loin and ribs command from two to eight times the price for other portions of the carcass, although the cheaper cuts are quite as nutritious and fully as appetizing if properly prepared. In European countries, where the scarcity of meat has long ago taught the lesson of conservation of food supplies, the demand is equalized over the whole carcass with the result that even with high prices prevailing for cattle the people are able to pay prices demerited.

In buying meat it must also be borne in mind that the price of a certain cut is not always a criterion of the food value furnished, nor even superiority of flavor. Take, for instance, the tenderloin which is the most expensive of all beef cuts. While there is no doubt about its tenderness, its flavor is really nil and must be enhanced in cookery by the juices from round steak or mushrooms, as well as various high spicings. In selecting beef the following points are to be considered:

1. Insist on seeing the carcass from which the meat is to be cut. If it carries the stamp, "Inspected and

Passed," it is a guarantee from the government that the meat is healthy. 2. Choose fat beef. The fatter the beef the more tender. A prime piece covering of fat, but the lean meat will be marbled with small specks of yellowish white fat. 3. Beef and mutton that have been hung some time and kept perfectly



A Unique Family Pet

The photo reproduced is that of a pet fawn caught by Mr. J. W. Hales, near Long Lake, Peterboro Co., Ont.

—Photo by Mary A. Hales

sweet will be much more tender. Lamb and veal, being immature, spoil quickly and should be quite fresh. 4. Meat of any kind should have little odor. It should be firm and dry rather than moist.

5. Select your meat according to the use for which you intend it and the plumpness of your pocket-book. A general rule is that the market value of meat increases backward from the head, but decreases downward toward the legs. Those muscles which get but little exercise will be tender, while the neck and legs, which are in constant motion, are tough but juicy. For roasts or broiled steak or chops the prime ribs and the loin will be best, while the neck and legs are better for broths. Tender muscles should be cooked quickly, but the rougher portions require long, slow cooking to soften the fibre.

Lamb and Mutton.—Mutton should be a bright, fresh color, with hard white fat and the meat firm. Lamb is more delicate in color and can be used from two to three months old up to a year. Between a year and two years it is positively worthless and is not good again until three years old. In mutton the fore-quarter is divided into the neck and legs, and an excellent roast, and the breast and neck, both of which are letter for steaking or for broth. In the hind quarter the leg and loin are both used for roasting.

A rolled loin chop is usually known as an English chop. A rolled rib chop scraped is a French chop and a rolled rib without the scraping is called a German chop. Rib chops are the smallest and most expensive, considering the relative amounts of meat and bone.

Cuts of veal are similar to those of beef while calves' sweet-breads, liver and brains are held in special esteem.

Conveniences in One Farm Home

One of the winners in the dairy farms competition (second prize winner in district No. 1) is fortunate in having several up-to-date household conveniences in her home. Among them will be noted several that perhaps other housewives, readers of

Farm and Dairy, also are blessed with. We would be glad to hear more about the home conveniences in the farm homes. Mrs. J. A. Anderson of Stormont Co., Ont., writes us regarding hers, as follows:

My bread mixer is the Universal Bread Mixer, manufactured by Launder, Frary & Clark, New Britain, Conn. It is advertised on it that it will mix bread in three minutes, which seems a short time, but it will do so if directions are followed. The washing machine I have is the New Century. My butter mixer is a rectangular one and made in St. Mary's, Ont. It is very satisfactory. In fact, I don't know how we could make butter without one. The kitchen cabinet is manufactured in Cornwall. Our kitchen range is the Universal Favorite, manufactured by Findlay Bros., Carleton Place. We consider it unsurpassed in beauty and usefulness. The hot air furnace is the Hecla, manufactured by Clare Bros., Preston, Ont.

It is claimed that onion cut up finely, thickly sprinkled with sugar and allowed to remain over night, the syrup drained off next morning and given in small doses frequently to the patient is excellent for whooping cough, relieving when nothing else would. The recipe, at any rate, has the virtue of containing nothing harmful.

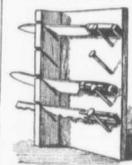
Are you watching our Summer Premium? Talks opposite editorial page. Some of them are sure to interest you.

Pictures of Royalty

Readers of Farm and Dairy will much appreciate the privilege of securing a fine lithograph picture 12x18 inches of the late King Edward VII., for the small sum of 25 cents, or a picture of both the King and Queen Alexandra, in return for one new subscription to Farm and Dairy. Pictures of the new King, King George V., and Queen Mary, will also be sent for one new subscription at \$1. State clearly which pictures are desired.

A Rack for Large Knives

A handy device for holding butcher knives is made as follows: Saw slant-



ing notches about half way through an inch strip two and one-half inches wide and nine inches long. Nail this securely to the left edge of a smooth inch board nine inches long and seven or eight inches wide. Slip the blades of the knives in the notches, and drive nails in the right side of the board, on which to rest the handles. A board, nine inches long will hold four knives, and they hold edge better than when kept in a drawer. The rack should be fastened to the wall somewhere near the kitchen table.

"My kitchen work is a real pleasure with my new Range. It bakes and cooks so nicely that I can do my morning's work in half the time it took with my old stove, and whether I am using coal or wood it gives perfect satisfaction."

Universal Favorite

The Universal Favorite Range is built right and will stay right. It is guaranteed to cook and bake perfectly with either coal or wood.

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It is desirable to mention the name of this publication when writing to advertisers

OUR HOME CLUB

TO THE CITY

We hear so much about our young people rushing into the city. Well, it is any wonder that our young men and girls do not stay on the farm if all there is in store for them is as "Country Philosopher" has pictured in Tragedies No. 1 and No. 3 of April 21, Farm and Dairy, in the Home Club. Doubtless those girls worked hard, leaving their school and studies early in life to help their much loved and delicate mother, stinting themselves of clothes and all luxuries that they might have the more comforts in the home for their mother and maybe help lift the mortgage that was hanging so heavily over the farm. Is it any wonder that they resent the step that their father took in placing a stranger in their dear mother's place to partake of the comforts that they had worked so hard to obtain?

Could that woman not see what was in store for her? Did she fully study the situation and take everything into consideration before her marriage as she should have done? Should the blame all rest on the young people? We think not.

In case of No. 3, we can only say, "Poor boy!" What other places did he have to take his bride? He had always worked at home, his earnings were all in the farm. The old people

would not give up their home and move out, and they expected him to not afford to build another house. Besides they did not want another house built just there near the farm buildings as the old home was, so it was folk or remain unmarried. Again I say, is it any wonder that our young people rush into professions and go off to the city? Will someone tell us a remedy for it all?—Aunt Sue."

"THE FARMER'S WIFE"

The girl who won the prize for saying "the greatest woman that ever lived was the wife of the farmer of moderate means," certainly had not gone through life with her eyes shut. How often the busy mother toils from early morn till all the rest are gone to sleep, then steals gently round to see that all are tucked in snug, and then sits down and thinks her life of very little importance as she looks and thinks of some friend or neighbor who is a "swell" in society. It is true life at times must get sort of monotonous for these busy mothers, but who is going to leave the best footprints on the sands of time? Once in a while we find women nowadays who could or would bear the burden as our mothers have done and always feel there was a better day coming. The reason we don't find more of these dear women who as "Sister" says, can cook a delectable meal and entertain her guests while they eat it, is because we are always trying more or less to cut ourselves loose, as it were, from

the homelike ways. I think "Sister" must have lived on a farm, for her summer holidays sometimes and got a glimpse of what the wife of the farmer of moderate means has to contend with.—Aunt Jane."

MONEY IN CHICKS

"Daughter" wants to know how to make some money for herself. My plan is just this. If you are taking your place in the home as mother's helper I do think father should give his girl a good allowance each month. It is not fair to her if he does not. It teaches her the value of money, and all she wants it will be a lesson in practical economy for her. Apart from this, if she wants some independent



An Ambitious Young Farmer
Youngest son of A. D. Foster, Bloomfield, and his pony.

work, something she can develop and make a success of, try hens or bees or small fruit. Begin on a small scale. Wonderful things can be accomplished with our good old hens if our women were allowed to carry out our ideas. Just as I am writing, a friend phones to me, "We have 50 chicks from our fairer tingle. Fifty chickens in the middle of March. That means 'broilers' for the same. Oh! but I did not tell you it is a happy boy at the other end of this venture, but his sister could do it too, I am sure.—Aunt Faithie."

HUM DRUM LIFE

It was with much interest that I read the letter from our new member, "The Country Philosopher," regarding the conditions on the farm homes that day, that make life so burdensome for the farm women. In some cases I thoroughly agree with him. Bearing out this statement, I recently saw a letter from the medical superintendent of one of our eastern Ontario insane hospitals, which contained the following words: "It is the humdrum of the farm life, with its daily routine and absence of the opposite sex, except for a hurried meal, the whole day, and frequently on into the night. Also when husband and other men of the house do return they are physically so exhausted that they are only fit to return to bed rather than spend a social hour with their wives and daughters." What do other members of the Club think about the "Philosopher's" views on this question? I would like to hear from "Mother," "Cousin Eva" and "Aunt Faithie."—"The Daughter."

TOO MUCH ALONE.

It is a great pleasure to read the thoughts of the other members of The Home Club. "The Country Philosopher" is dealing with a vast proof in his letter in the April 21st issue. Even where circumstances are different from those mentioned, the farmer's wife is too much alone. Nothing is so nerve-racking as solitude, especially the solitude of the prairies in Western Canada. I would like to hear from the other members of the Club as to what they think.—"Uncle Dick."

Music Folios, your choice of a large selection, free, in return for a new subscription.

Results of Our Competition

More evidence of the good resulting from the recent Dairy Farms' competition conducted by Farm and Dairy are found in the letter received from one of the competitors, Mrs. Geo. Forester of York Co. Mrs. Forester writes:

Farm and Dairy is always a welcome visitor in our house, especially the Dairy Farms' competition last year. Our house is a very ancient one, having stood the best of our Canadian winters for nearly 90 years. We still succeed in making it convenient and enjoy nearly all the conveniences of a modern home. We have had lately installed a first-class stove range made by the Moffat Stove Co. of Weston, Ont., which I always feel is indispensable in a farm home. We also enjoy a piano. Nothing appeals stronger to the youngsters in the home than music.

Our soft water is in the kitchen sink is very convenient. We are having a marble sink and waste pipe put in which I hope will save me many steps. We have enlarged our croquet lawn to meet the requirement of the English croquet game, which is away ahead of the old game.

THE HELP PROBLEM.

With all the conveniences and improvements in house and surroundings, I still find lots of work. Domestic help on the farm is almost impossible to get. A great number of our girls are choosing work in cities at small wages and consider it menial and lowering in dignity to work on a farm. This, I think, is a great mistake. There girls should still be a pleasant place for the farmer's wife. I cannot agree with writer of "Tragedy of Farmer's Wife." I can still find time to help with milking and enjoy the outing. There is no carrying to do, as a milk conveyance carries milk from stable to cooling vat.

The day is not past yet when the farmer's wife or daughter can help with the milk pail or other light outside work. It helps to create an interest in all the ins and outs of farm life and in so doing tends to unite and strengthen the family.

I agree that the farmer's son, professional or business man, shows good sense in choosing a wife. Nine times out of ten, it is the girl who masters the homely details of the farm home, in preference to the girl who chooses to work in factory, shop or back kitchen.

Renew your subscription now

FOUNTAIN PEN FREE

A 14 kt. Gold Fountain Pen will be given to any person who secures only one new subscription for Farm and Dairy. These pens are guaranteed to give satisfaction. Try and win one. Send for sample copies.



Bicycle Ball-bearings and rigid stand make the "LEADER" very running—and there is nothing to interfere with the ball bearings beneath bar to drain off the butter-milk.

"Leader Churn"

can be used either by foot or hand—without stirring. Made of strong white oak—sweet and clear—will chip like glass and crockery—and will last for years.

If your dealer does not handle them write for information to
CUMMER-DOWNSWELL LIMITED, - Hamilton, Ont.

PAQUET GUARANTEED CLOTHES

A REVOLUTION IN METHODS OF MAKING AND SELLING MEN'S CLOTHES

PAQUET GUARANTEED CLOTHES represent the latest advances in Clothes Making. They are not "Ready Made," nor sort of the old-fashioned Ready Made Clothes, made up. All Ready Made clothes are made up and finished to fit AVERAGE types, not REAL men. When you buy the old-fashioned Ready Made Clothes you may be quite sure that they will not fit you, because no two men are exactly alike, and once a suit of garment is finished it cannot be altered properly without being all ruined apart and recut.

PAQUET GUARANTEED CLOTHES have the advantage of Custom Made Clothes because they can be made for HALF the price of Custom Made Clothes of equal quality and style. They are sold direct to YOU at Wholesale Prices, and are guaranteed to be the best value in Canada at \$20.00.

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 unequalled in this or any country. The pockets are made according to get out of shape. The real value of this suit is \$12.50. Our Special Price is \$10.00. PREPAID TO... any part of Canada. Sizes 38 to 44... Larger sizes 75 cents per size extra.

\$10.

Write for FREE Style Book

Illustrating New York's latest models, and containing samples of the very newest materials 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

The Upward Look

What Works Have We?

But wilt thou know, O vain man, that faith without works is dead.—James 2:20.

Our text this week is a warning. It is also, a light to guide our way. By it we find that it is not sufficient to believe in God, as unless we also strive to follow Him and do as He would have us do our faith is dead. It profiteth us nothing. A man in a burning building might believe that the ladder stretched out for his rescue would answer the purpose, but unless he put his belief to the test and used the ladder he would not be saved. So it is with each of us. We may believe that God has the power that we need to enable us to overcome our lack of faith, our pride, our quick temper, our foolish fears. We may even believe that God loves us and that He will give us this power if we but ask Him. All this, however, is not enough. We must ask him for this power.

Many professing Christians seem to think that once they have expressed their belief in Christ and joined the church that is all that is necessary to carry them into Heaven. Our text tells us that that is not sufficient. There is a still more terrible warning. It is found in Revelation 3, 15, 16: "I know thy works, that thou art neither cold nor hot; I would thou wert cold or hot. So then because thou art lukewarm, and neither cold nor hot, I will spue thee out of my mouth." Christ expressed the same warning as is contained in our text, when he said that like a tree our lives will be judged by the fruit they bear. And that it may know what kind of fruit we are to bear we are told that the fruit of the spirit is love, joy, peace, long-suffering, gentleness, goodness, faith, meekness, temperance.

Unless we are growing—gradually it may be, but steadily—more loving and more considerate of others, unless we are throwing off the fears that hold us back, unless we are becoming happier and full of an abiding peace, we are missing the mark. Our works are not proving sufficient. By looking back over the way we have come each of us can judge for ourselves whether or not our lives are bearing fruit. In our Christian life every year, every month, every week, should show a closer and closer approach to God and

At Last The Perfect Washer



Our "Champion" is easily the champion of all washing machines.

All cogs and machinery covered. Lever and High Speed Balance Wheel operating together simply cut the work of washing to the lowest possible point.

Don't think of buying a washing machine until you have seen the "Champion". If your dealer can't show it, write us for leaflet. 76 DAVID MAXWELL & SONS, ST. CATHARINE, ONT.

a better understanding of His Infinite will.—I. H. N.

Our Labor Saving Contest

The housewives of olden times must indeed have had a serious and hard problem many times to do all they had to do, with the crude tools and appliances at their disposal. These days our housekeepers are blessed with many labor saving contrivances, of almost every description. Some are good; some not so good. Some we our readers have already sanctioned in these columns many times. Others we have yet to hear from.

We desire to institute a "labor saving contest" among the readers of Farm and Dairy. We would like our women readers to write our Household Editor regarding what they consider the most helpful and best labor saving devices of to-day, for the home. Some of the devices we expect will be the washing machine, food chopper, freless cooker, cleaning powders, steam cookers and many others. We want you to write us fully and plainly, what you consider the most valuable aid in your home, or what you would like to have and why. Don't forget to tell us why. If the articles you desire are not advertised in Farm and Dairy, write us about them and we will try and place you in touch with the firms who handle these goods.

A similar contest was started some time ago by a woman's magazine in the United States, and caused much interest and enthusiasm among its readers. The number of letters received in reply to this contest was most encouraging. There seemed, however, to be some mystification as to the nature of a household aid. Some women described a whole house, others a favorite room which was a good work-room, still others described very trivial objects which were in the nature of luxuries and which undoubtedly pleasing to some people, would be decidedly in the way of others. But there were a number of women who answered well, so large a number that the awarding of prizes became an exceedingly difficult matter.

For curiosity, a list of the favorite aids was compiled in the order of popularity. This is the list:

1. Fireless Cookers,
2. Food Choppers,
3. Steam Cookers,
4. Double Roasters,
5. Electric Irons,
6. Hand-Vacuum Cleaners,
7. Dustless Dusters,
8. Mop Wringers,
9. Clothes Washers,
10. Cleansing Powders.

THREE PRIZES AND LETTERS. A first prize of \$2, second prize of \$1.50 and a third prize of a renewal subscription or a new subscription to Farm and Dairy, sent to one of your friends, will be given for the three best letters on the above subject. If you can send a photograph or ink drawing of your pet device, so much the better. It will count all the more in the awarding of the prizes.

Address all communications to Labor Saving Contest, Household Editor, Farm and Dairy, Peterboro, Ont.

A Use for Tweezers

Why not keep a pair of tweezers in the work basket? You have no idea how useful they are to pull out stubborn ends of basting cotton, particularly when the machine stitching has run over the bastings. Such accidents are very frequent no matter how careful the seamstress may be, and the tweezers will really prove of great assistance.

Pattern Department

We must caution readers in ordering patterns that they take more care in sending us the necessary information, that their orders may be filled

with accuracy and promptness. Be sure and give name and address, number of pattern desired, or size of pattern ordered. This last information is the chief one that bothers most people ordering, who do not give all necessary details in their order. We have size desired, as should the pattern not be correct, it takes much time to return it, as well as expense and annoyance. Hereafter, all patterns ordered, that do not mention size, we shall take it on ourselves to order a medium size.

For Scalloped Edges

Before buttonholing the edge of centerpieces, towels or collars, when the scallop is not too small, in place of running the edge try sewing it on the machine. It will be stronger and less likely to fray. For padding cut off a length of darning cotton and hold it so that you buttonhole over it. Take few or many threads of the cotton according to width of the buttonhole edge and the thickness of padding desired. If the edge is not too rounding instead of cutting the linen close to the buttonholing, cut it one-third of an inch, then turn under the linen and catch it to the buttonholing. No matter how many times the piece is laundered it can never fray. Where you can not do this work, a chain stitch along the free edge of the scallop, cut close to the chain stitching buttonhole over it and you have an edge which can never fray.

Prize Garden Contest

Much interest is being taken in our prize garden contest, which we told the boys and girls about in the May 5th issue. Be sure and photograph the garden when it is first planted, and then again when it is in full growth. These photographs will add considerably to the interest taken in the competition. Read the conditions of the contest in the issue for May 5. We want to hear from as many young gardeners as possible.

Making Patches Invisible

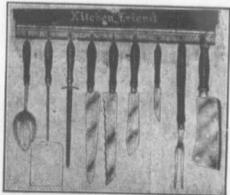
When making any kind of wash-dresses, those for children especially, it is a good plan to baste a piece of the material on the inside of the dress and let it be washed with it. Then when the patch has to be put on it will be the very same color as the dress.

Wash and rinse clothes as usual, then rinse in skim milk. This simple substitute is better than starch, because it will not stick to the irons nor rot the clothes.

Renew your subscription now.

Woman's Kitchen Friend

This kitchen rack should be in every woman's home. You cannot afford to do your work another day without it. All the articles shown are household con-



veniences. Handles are black, and well finished. All regulation size and length. You can have this FREE, for a club of two new subscribers to Farm and Dairy, at 25 cents each. Get the boys and girls to work securing two of your neighbors to subscribe. It will surprise you how easily this can be done. Address Circulation Manager, Farm and Dairy, Peterboro, Ont.

The Sewing Room

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

TUNIC SKIRT WITH FIVE GORED UPPER PORTION 667.



Short over skirts, or tunics, cut to points at the sides are among the prettiest to have appeared. This skirt shows one cut on the best possible lines and is especially well adapted to bordered materials and to flouncings, although it can be made from plain material with equal success.

Material required for medium size is 7 yds. 24 or 27, 4 yds. 44 or 3 1/2 yds. 52 in. flouncing or bordered material 24 or 27 in. wide.

The pattern is cut for a 22, 24, 26, 28 and 30 in. waist and will be mailed for 10 cts.

Blouse or shirt waist 665A



The shirt waist that closes at the left of the front is a pronounced favorite of the season.

Material required for medium size is 3 1/2 yds. 21 or 24, 2 1/2 yds. 32, 2 1/2 yds. 44 in. wide.

The pattern is cut for a 32, 34, 36, 38 and 40 in. bust and will be mailed for 10 cts.

ONE-PIECE WORK APRON 663B



One piece garments are a fancy of the present season, and aprons are much liked made in this style. This model is simplicity itself. There is only one button and buttonhole required to keep it in place and it can consequently be slipped on and off in the traditional "jiffy".

Material required for medium size is 3 1/2 yds. 24 or 27, 2 1/2 yds. 32 or 36 in. wide.

The pattern is cut in three sizes, small, medium, large, and will be mailed for 10 cts.

BATHING SUIT 665S



The bathing suit always follows the general trend of fashion. Here is a model that is graceful and becoming yet perfectly simple. The blouse and skirt are cut in one, held at the waist line by the belt.

The costume consists of the tunic and the bloomers. The bloomers are graded by means of dart to be perfectly smooth over the hips.

Material required for medium size is 8 1/2 yds. 24 or 27, 6 1/2 yds. 32 or 5 yds. 44 in. wide.

The pattern is cut for a 32, 34, 36, 38 and 42 in. bust, and will be mailed for 10 cts.

to 45,000 boxes, as compared with 37,000 boxes for the corresponding week last year. This represents an increase of all most 25 per cent in the make, and as the receipts for the past week have shown a similar increase, it is likely to be maintained under the present satisfactory conditions. This is a very satisfactory condition of affairs, so far as the industry is concerned, and with a good demand at full prices will mean handsome returns to the farmers of the Dominion of Canada.

The demand this week has been fairly active, and although the shipments for the week have been comparatively small, still the demand has been sufficient to maintain prices, and in the country markets there has been no decline this week, the prices paid ranging from 10¢ at the beginning of the week and closing firm with 10¢, the ruling price. Receipts next week will show a big increase over this week's quantity, unless we have a corresponding increase in the demand we may see easier markets. All depends on the demand from Great Britain.

The price of butter has been well maintained this week in spite of the heavy receipts, which are fully 50 per cent greater than they were at this time last year. This is largely due to the increased local trade, and the big demand for butter for shipment to the West, where almost all the country prices have ranged from 23¢ to 25¢ a lb., but lower prices are looked for, as the increased receipts are tending to bear the market down.

CHEESE MARKETS

Woodstock, May 25—400 boxes of white and 750 boxes of colored offered; 10½¢ bid; no sales.
 Madoc, May 25—705 boxes boarded; 10 13½¢ bid; no sales.
 Winchester, May 25—914 boxes registered; of which 90 were colored and the balance white; 10½¢ was offered; none sold on the board.

Alexandria, May 25—762 boxes offered; all white; all sold at 10½¢.
 Belleville, May 25—2645 white offered; sales 1288 at 10½¢, and 975 at 10 13½¢.
 Perth, May 25—1230 boxes colored and 930 white offered; 990 colored and 810 white sold at 10½¢.
 Kingston, May 25—1282 white and 306 colored cheese registered. Sales were about 500 boxes at 10½¢.

Victoriaville, Ont., May 27—2000 cars of cheese sold at 10½¢.
 Napawan, May 27—Cheese boarded 2300, 400 at 10½¢, 425 sold at 10 13½¢.
 Perth, May 27—1230 boxes colored and 930 white and 300 colored. All sold at 10½¢.

Orawa, May 27—781 boxes boarded; 408 white, 373 colored; none sold at 10½¢.
 Brantford, May 27—Offered, 1065; sold, 715, namely, 496 at 10 5¼¢; 220 at 10½¢.
 Ironquoy, May 27—542 colored and 145 white cheese offered; all sold at 10½¢; colored at 10½¢, and white at 10½¢.

Corwall, May 27—Offered, 966 white; all sold at 10½¢, and 574 colored; all sold at 10 3¼¢.
 Pictou, May 27—22 factories boarded 265; cheese; all colored; 10 13½¢ bid; 2015 sold.

London, Ont., May 28—13 factories offered 1555 boxes of cheese; 445 boxes of white; balance colored. No sales. Bidding 10½¢ to 10½¢.

Waterford, Ont., May 28—1055 boxes offered; 715 boxes sold; 490 at 10 5¼¢ and 220 at 10½¢.
 Watertown, N. Y., May 28—8600 boxes sold at 14½¢ to 14½¢ for large and 14½¢ to 15¢ for white.
 St. Hyacinthe, Que., May 28—500 boxes of cheese at 10½¢.

Canton, N. Y., May 28—1700 boxes of cheese at 14½¢.

GOSSIP

The Whipple Horse Collar Co., of Hamilton, Ont., are advertising a specially constructed horse collar which has had a large sale in the United States, and seems to be a solution to the difficulty which arises from sores on necks and shoulders of working horses. It will be worth while to Farm and Dairy readers to investigate the merits of this humane horse collar by securing the little book, "Horse Collar Sense," from the above mentioned company.

PROFITABLE DAIRYING

One of the neatest and most instructive pamphlets that has been ever prepared, to examine has come to hand from the Massey-Harris Company. The pamphlet is entitled "Profitable Dairying." It is printed on high quality paper, profusely illustrated with types of dairy breeds and many dairy scenes. Much information of a valuable nature relative to dairying

is contained within the pages of this pamphlet. Farm and Dairy readers will do well to write the Massey-Harris Co., Limited, Toronto, for a copy of "Profitable Dairying."

Shoe Blisters, Capped Hoof, Bursitis are hard to cure, yet

ABSORBINE

will remove them and leave no blemish on the hoof. Cures any sore or swelling. Bursitis cured. Book 2 sent free. ABSORBINE, JR., 1200 Broad St., Newark, N. J. For Blisters, Capped Hoofs, Swellings, Guinea Yaws, Yaws, Varicosis, Itch, Ringworms, W. F. Young, P.O., 121 Temple St., Springfield, Mass. TRADE MARK. Beware of cheap imitations.

Dr. Bell's Veterinary Medical Wonders cure inflammation of joints, bowels and kidneys. The only remedy. Agents wanted in every county. Write for a free trial bottle. Offer only good for 30 days. Limited to 500 bottles.
DR. BELL, V.S., Kingston, Ont.

MISCELLANEOUS

TAMWORTH AND BERSHIRE SWINE—Borns and sows for sale. J. W. Todd, Ontario, Ont. Maple Leaf Stock Farm, Eft

NITHSIDE FARM—Herd of large English Berkshire, South-down Sheep and Silver Grey Dorking fowl. Orders now taken for January pigs, ready to wean, at 8 weeks old, single or in pairs not related. A few young sows about 5 months old, ready for service. Also Silver Grey Dorking eggs, \$2.00 per setting of three. None but first class registered stock sent out. Satisfaction guaranteed.
E. E. MARTIN, Canning P.O., Paris Station, Oxford Co., Ont.

CHESTER PIGS—An offering for sale Ohio improved Chester white pigs, all ages; 100 under 6 weeks old. The largest kind is what I import.
J. H. M. PARKER
 Whitlowdale Stock Farm, Lennoxville, Que.
 Importer O-4-1-10

TAMWORTHS AND SHORT HORNS FOR SALE—Young and matured sows sired by Imp Bear, dams by Colwell's choice Canada Champion, born in 1903-5 and '05. Also choice pigs of both sexes. The choice yearling Shorthorn bulls, choice family. Excellent milking strain. Three choice heifers, 2 years old, in calf to choice bull Price right.
A. A. COLWILL, Box 9, Newcastle, Ont.

AYRSHIRES
BULL CALVES
 Bull Calves only from E. U. P. cows and others now on test. Age from one week to 12 months. Prices right. Long distance phone.
JAS. BEGG, Box 88, St. Thomas, Ont

TWO AYRSHIRE BULLS FOR SALE
 12 MONTHS OLD
 Of Choice Hereford, sired by AUCHINCRAIG GOOD GIFT (Imp.)—2739—The dams are cows with good milk and fat records. Of good size and ready for service. Price low. Also imported pedigree, 850 each. Also a few Bull Calves by same Sire. Write.
J. W. STEPHEN, Huntingdon, Que.

"La Bole de la Roche" Stock Farm
 Here are kept the choicest strains of AYRSHIRES, imported and home bred. YORKSHIRES of the best-bred type. WHITE ORPINGTON, WHITE WANDOTTES and BARRED ROCK Poultry.
HOB. L. J. FORBES, J. A. McCREA, Proprietor, Manager
 R-52-10 Ste. Anne de Bellevue, Que.

FOR SALE—AYRSHIRE BULLS
 From one month to two years old; all bred from large, good-milking stock. Also Yorkshire Pigs. Apply to
DANIEL WATT or to HON. W. OWENS, Manager, Proprietor,
 6-19-10 Riverside Farm, Montebello, Que.

SPRINGHILL AYRSHIRES
 Imported and home bred stock of all ages for sale. Stock shown with great care at all leading fairs.
ROBT. HUNTER & SONS
 Long distance phone. Maxwell, Ont. 87-3-10

HOLSTEINS

FOR SALE—Cornelia's Poosh, five times laid bull, six before, and London Fair; also five of his sons, all from record of merit cows. Also females of all ages.

THOS. HARTLEY Downsview, Ont
LYNDEN HOLSTEINS

FOR SALE—One bull calf, 5 months old; dam, Spotted Lady No. 819, 13,122 lbs. milk, 99 1/4 lbs. butter, in 11 months. Also two year old heifer, a grand daughter of Calamity Jane.

SAMUEL LEMON
 Lynden, Ont.

FOR SALE
 An extra good yearling Holstein bull for sale from a 30 lb. sire and a 17 lb. dam. An also in a position to offer cows in calf to Francy Hie's Admiral Ormsby, Dam, Francy III. Butted in 7 days, 23 1/2. All stock guaranteed to be just as represented.
J. A. CASKEY, Box 144, Madoc, Ont.

LYNDALE HOLSTEINS

We are now offering for sale a 13 month old son of "Cousin" Col Preston's Patent out of a 20 lb. dam; also a son of Sara Brown's King of Kings, out of a 18 lb. cow. Both choice individuals, 100 lbs. in service.
BROWN BROS., LYN., Ont.

EDGEMONT HOLSTEINS

For sale, one yearling bull, fit for service; also bull calves from Record of Performance Cows.

G. H. MCKENZIE,
 Thornhill, Ont.

RIVERVIEW HERD

FOR SALE, 2 Bull Calves, sired by Sir Anggie Peets Regis, son of King Regis, world's greatest year old sire, dam Angie Lily Pictorjae Pall, champion Jr. 4 year old—23½ lbs. butter 7 days. Dam of calves a 20 lb. 2 year old, and 23 lb. year old. Price reasonable considering breeding.
P. J. SALLEY
 Lachine Rapids, Que.
 E-104-10

LAKEVIEW HOLSTEINS

Count Hengerveld Payne De Kol heads the herd. His sister, Fanny Hengerveld Count De Kol, is the sire of the world's champion milk cow, De Kol Cramelle, 119 lbs. milk in one day, and 1047 lbs. in 100 days. His dam, Grace Fayne 2nd, has 23.30 lbs. butter in 7 days, and in the dam of Grace Fayne 2nd's Homestead, the world's champion butter cow, over 35 lbs. butter in 7 days. Bull calves for sale.
E. F. OBLER, Bronte, Ont.

AYRSHIRES

BURNSIDE AYRSHIRES
 Fresh importation just landed of 12 of the choicest young bulls I have ever landed from the best herds in Scotland, such as Osborne's, Auchenbraun's, Netherhall, Bargenoch, Barr of Hobland and Mitchell of Lochfergus, all fit for service. Also 14 female cows, 3 year olds, 2 year olds, and 20 choice 1 year old heifers. Correspondence solicited.
R. B. REES,
 Burnside Stock Farm, Howick, Que.

SUNNYSIDE AYRSHIRES.

Imported and home bred, are of the choicest breeding, good type and have been selected for production. THREE young bulls dropped this fall, sired by "Nether Hall Good-time"—2644—(Imp.) as well as a few females and young herd for sale. Write or come and see.
J. W. LOGAN, Howick Station, Que.
 (Phone in house.) 6-5-19-10

STONEHOUSE STOCK FARM

Is the home of most of the coveted honors at the leading eastern Exhibitions, including first prize bull and young herd. **FOR SALE** a few Choice Young Cows, also Bull Calves.

HECTOR GORDON,
 HOWICK, QUE.
 O-9-8-10

RAVENSDALE STOCK FARM

Ayrshires, Gydalses and Yorkshires
 If in need of good breeding stock of any type which are always reasonable,
W. F. KAY,
 Philippsburg, Que.
 6-5-19-10

HOLSTEINS

BULLS! BULLS! BULLS!

A less than half their value for the next 30 days. Write

GORDON H. MANHARD
 MANHARD, Ont., Leeds Co.

HOMESTEAD HOLSTEIN HERD

Headed by the great young sire, Dutchland Colantha Sir Abbecker's Dam, Tidy Pauline De Kol, butter 7 days, 23.44. Sire's dam, Colantha 4th's Johanna, butter 7 days, 35.25. Average of dam and sire's dam, 31.83 lbs.
 Bull calves offered, one to seven months old, from dams up to 23½ lbs. butter in 7 days.

EDMUND LAIDLAW & SONS
 Box 264 Aylmer West, Ont.

SUNNYDALE

OFFERS A GREAT BULL. Dutchland Sir Hengerveld Maplecrest No. 558. He is a son of the champion bull of the Holstein breed. The pictures of the two bulls appear in Farm and Dairy, June 10th, 1909. Write for particulars. One tests 37, the other 4 per cent. Also one good Bull Calf.

A. D. FOSTER, Bloomfield, Ont.
 E-5-10-10 Mallowell Station, C.O.R.

GLENSPRINGS HOLSTEINS

Three Fine Young Bull Calves, from A. R. O. and R. O. P. cows for sale. Also COUNT GIBBEN 4431, born April 24, 1904. Sire, Sir Henry Parthonia. Dam, Shady Brook Gebben.
 Butter in 7 days, 26.11.
 Sire, De Kol 2nd, 32 A & O daughters.
 Butter Roy 3rd, 32 A & O daughters.
 De Kol 2nd, 32 A & O daughters.
E. B. MALLORY, Frankford, Ont

SUMMER HILL HERD

REGISTERED HOLSTEIN CATTLE
 This year our herd has made two World's Records and two Canadian Records.
 Jennie Bonerges Ormsby 9216, calved as a two year old, she 16,399 lbs. milk, containing 632 pounds butter in 365 days. (Official World's Record).
 She also made 14.39 lbs. butter in 7 days, ten months after calving, which is World's Record for that period.
 Francy 3rd 6220, made 23.16 lbs. butter in 7 days. Champion Canadian bred cow. (She will do much better).
 Francy Calamity De Kol 10414, made 16.47 lbs. butter in 7 days, which is Canadian record for heifers calving before two years old.

These three females are all of the same breeding of the Francy family. We have more to hear from.
 We own the sire and dam of Jennie Bonerges Ormsby, World's Champion, and 5 half sisters. We own dam and grand dam of Francy Calamity De Kol, 10414, Canadian champion under two years old.
 Sixty head on hand, including a few choice heifers and a young herd. Write at 4171, sire of World's Champion. This is the place to secure foundation stock.

Phone 207. Trains met at Hamilton if advised.
D. C. FLATT & SON, Millgrove, Ont
 R. R. No. 2. E.T.P.

HOLSTEINS
WINNERS IN THE RING
 Gold Medal Herd at Ottawa Fair
 and
WINNERS AT THE PAUL
 See Our A.R.O. Records
 Just the kind we want. They combine
CONFORMATION
 and **PRODUCTION**
 Bull and Heifer Calves for Sale from
 Our Winners

"LES CHENAUX FARMS"

Vaudreuil, Que.
 Dr. Harwood, Prop. D. Boden, Mtr.

OUR FARMERS' CLUB

Contributions invited.

QUEBEC

COMPTON CO., QUE.

COMPTON CENTRE. — Farmers are getting on well with their work. Grain is growing fast but grass is not coming on so well. The road work has got well started and it looks as though we were going to have some good roads this summer. Potatoes are cheap, and there is little sale for them. Young pigs are scarce, and are selling at from \$4 to \$5 each. — H. G. C.

ONTARIO

HASTINGS CO., ONT.

SIDNEY CROSSING. — Pasture is in good condition. Some pieces of wheat were hurt by water. The great bulk of the seeding is done; however, a few farmers have some grain to put in yet. Blossoms are very abundant. Cherries, apples, pears and strawberries and nearly every fruit are at least 90 per cent. in blossom, and promise abundance of fruit. Timothy hay sells for \$15 a ton, clover hay, \$15; oats, 45c a bush.; barley, 55c to 60c; butter, 70c to 75c a bush.; eggs, 19c to 20c; butter, 25c to 28c; potatoes, 40c to 50c a bag; hogs, 5c a lb. — J. K.

NORTHUMBERLAND CO., ONT.

WICKLOW. — Some farmers are sowing fields that they started more than a month ago, but had to leave them on account of the rains. It seems as though the late frosts have not hurt the apples, although the leaves were much blackened. Judging from the number of blossoms there is a good prospect for fruit. Stock generally has wintered unusually good. Horses and cows are commanding high prices. Bees generally have wintered very good, but the cold, wet weather of late has been much against them. — E. B. H.

DURHAM CO., ONT.

FLEETWOOD. — Owing to the warm weather lately the crops are looking splendid. In driving through the country several beautiful fields of fall wheat and rye are to be seen, and what pieces of alfalfa are visible look strong and robust, and should give an abundance of fodder. All live stock going on the grass are looking fine and should turn into good beef. Owing to the early spring the grass has got a good start and ought to last out quite a while. — A. L.

VICTORIA CO., ONT.

LINDSAY. — Our local Bee Keepers' Association held their annual meeting on the 24th of May, as usual in the basement of the Lindsay Public Library. Among those present were bee keepers and those interested from the nearby towns of Canington, Beaverton, Fenelon Falls and the vicinity of Lindsay. The speakers were Mr. Morley Pettit, Provincial Apiarist, from the Ontario Agricultural College, Guelph, and Mr. Jesse L. Byer. The officers elected were: President, James Storrier, Lindsay; Vice-President, B. Ferguson Whiteside; Secretary-Treasurer, Abraham Noble, Crosswell. — R. F. W.

BURY'S GREEN. — Farmers are still busy preparing for large root crop. Considerable corn will no doubt be planted for early fodder.

Some have given up the silo business and only one more remains in this locality, the owner of which is fast taking the lead in dairying, also in the growing of alfalfa. Grain crops are making good headway since the recent showers. Hay is growing rapidly, and will likely be a

good crop. Stock is selling high and fat animals are scarce. Horse buyers have been busy and have succeeded in thinning out many of the good breeding mares, which many farmers may yet regret to have parted with. Hogs are still high and every weeder there are more or less shipped from Fenelon Falls. Potatoes are being fed to stock as there is no demand. — G. B.

HALIBURTON CO., ONT.

RIMMOUNT. — The cold dry weather with some frost has checked the growth of both grain and grass. Clover in the low land has been hurt with frost. Corn and forward planting is being rapidly pushed ahead. All the fruit is about at full blossom, which means a full crop. Early potatoes are out of the ground and need warm weather to make them grow fast.

WENTWORTH CO., ONT.

KIRKWALL. — Weather is backward and there has been very little growth. Nearly all cattle, excepting cows are out to pasture although it is somewhat short as yet. Farmers are preparing their corn and root ground and some have their manure sown. There is going to be quite a large acreage of corn sown for the silo this year. Young stock of all kinds are scarce and high in price. Young pigs of all ages are selling for from \$7 to \$10 a pair and fat hogs are now \$9.25 a cwt., and expected to go higher. Wheat is \$1.00 a bushel, oats, 40 cents a bushel, hay about \$25 a ton, and shorts, about \$25 a ton. — C. E. W.

MIDDLESEX CO., ONT.

On the second day of May we had a very heavy rain, which did considerable damage to the wintered bridges and farms. Many of these were away entailing much labor to repair them again. G. M. James delivered to a shipper a fine bunch of heavy cows, getting \$6.75 a cwt. for them. King George the fifth, and others of the nobility of the old land, will pay pretty high for their roast beef when they sample a cutting from one of these big fellows. Much complaint is heard among the dairymen this year at the scarcity of female calves, but this is a common occurrence.

"To prevent milk fever, do not milk a newly freshened cow the first day," is what an old dairyman told me recently. Hundreds and hundreds of spruce trees have been planted out this year in this vicinity, which in a few years will afford a wonderful protection. — J. E. O.

LITTLEWOOD. — Mr. P. Love of this place had this to say about their farm operation:

"Our fall wheat is looking splendid and most of the farmers are looking for another bumper crop. The grub and the locusts are destroying some of the oats and barley. One man, who is thinking of buying a horse from us, is waiting to see what is destroying some of these underground workers before he'll invest in a new horse. We have a car load of heavy cattle preparing for the overseas market. The highest price paid so far this year for this kind of stock that I have heard about is \$6.25 a cwt. We expect to ship ours in July, as we prefer to finish them on grass. We found a splendid market for the horses we shipped to the north-west in July, as the demand was good for all classes. We get letters from there enquiring about when we'll go west with another shipment." — J. D.

ESSEX CO., ONT.

ARNER. — Increased rains are making corn planting tedious. A small quantity has been planted but the bulk of the crop is yet to go in. Clover is doing well and promises to be an abundant crop. Wheat has made rapid advances in the last few weeks, but most pieces are spotted owing to so much ice in the spring. Oats are doing well especially where sown once. Tobacco plants are small for the time of year, owing to so much cold weather. Hogs are selling at \$10 a cwt. Rural telephones are being installed by most of the farmers in the neighborhood. — A. L. A.

MANITOBA

MARQUETTE CO., MAN.

KELLOE. — On the 18th and 19th of May we had a very heavy set of snow, but it was all gone by the 21st of the 20th, when a heavy rain fell in, which has lasted almost ever since. The snow does not appear to have harmed the crops in the least, and the rain was very much needed. The gardens did not seem to be progressing as rapidly as they should until this last rain. The outlook for all kinds of stock still kept high. But grain prices are not so good as in the early spring. — L. J. N.

LIVE HOGS

We are buyers each week of Live Hogs at market prices. For delivery at our Packing House in Peterborough, we will pay equal to Toronto market prices. If you cannot deliver to our Packing House, kindly write us and we will instruct our buyer at your nearest railroad station, to call on you.

THIS WEEK'S PRICES FOR HOGS DELIVERED AT FACTORY

\$9.50 a Cwt.

FOR HOGS, WEIGHING 160 TO 220 LBS.

THE GEO. MATTHEWS CO., LIMITED
PETERBOROUGH, - HULL, - BRANTFORD

SASKATCHEWAN

HUMBOLDT DIST., SASK.

VONDA. — Dry weather still continues. Wheat had a good start but has been out by frost although it does not seem to have hurt it. Seeding is mostly all finished. Old settlers say there will be a good crop. Wheat is worth at the elevator, 70c; oats, 22c; barley, 25c; butter, 30c; eggs, 17c; pork, lard and retail at 10c; bran, 80c. Hundreds of thousands of bushels of wheat are brought to the elevators every day now. — A. F.

GOSSIP

Grace, the handsome chestnut mare owned by Mr. J. Sherriff, of Rockland, Ont., and illustrated in the illustrated section of this issue of Farm and Dairy

is a particularly promising animal, that Mr. Sherriff is willing to sell at the reasonable figure of \$300. This mare should make a good showing if exhibited at the Fall fair. She was shown for the Governor-General's prize at the recent Ottawa Horse Show, and was a winner of several prizes at the Canada Central Exhibition at Ottawa last fall. She is a good saddle horse, golden chestnut in color, four years old, and stands 15 hands high. Her dam was a standard bred mare and her sire was the noted stallion, Centaur.

The columns of "Farm and Dairy" are becoming more interesting every year. I have read "Farm and Dairy" for two years, and am well pleased with it. — J. G. A. McEwen, Wellington Co., Ont.

Amatite ROOFING

A Frank Statement

HOW many manufacturers of ready roofing will tell you frankly how their goods are made?

Mighty few.

They will talk about "secret formulas," "special waterproofing compounds," etc.—all nonsense.

They don't tell you what the goods are made of because they don't dare.

From the start we have never hesitated to tell the buying public just what Amatite is made of and just what it will do.

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Amatite is made of two layers of Coal Tar Pitch—*the greater waterproof material known.*

Alternating with these two layers of pitch are two layers of coal-tar-saturated wool felt to give it tensile strength.

On top of these four layers is a real mineral surface—five layers of protection.

The mineral surface is permanent, fireproof, and absolutely requires no painting.

It Needs No Painting

Roofings that require painting are a worry and an expense. Every year or two you have to climb up and give them a coating with some special compound sold by the manufacturers, or you are pretty sure to have a leaky roof.

Amatite is Making Good

We are constantly receiving letters from customers telling us how satisfied they are with Amatite—how much better it is than the old-fashioned roofing.

Year after year, in all weather, Amatite will give perfect service without any painting or attention of any kind.

Surely this is the kind of service that wins and keeps customers.

Free Sample

Before you go to your dealer and buy a roofing, we should be very glad to send you a sample so that you can see for yourself just what we are talking about—what a solid, substantial, reliable roofing we are offering to the public.

Something Back of It

Remember, in this connection, that Amatite is made by the largest manufacturers of roofing materials in the world, and that when you buy this roofing there is something behind it. We stand back of every roll. We know we are offering the best and the most economical ready roofing on the market.

For the sample and booklet address our nearest office.

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Be sure and work the horse

The soothing heat of this ointment works a speedy cure of Galls, Cuts, Sores and Wounds. Standard horse remedy of the world. Works where other ointments fail. Buy it and be ready for emergencies. Sold by druggists generally. Trial sample sent for 2c postage. Get Retail and Wholesale addresses

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Amatite on Lumber Sheds of B. F. Harris & Sons, Brantford, N. Y.

AYRSHIRE NEWS

Farm and Dairy is the official organ of The Canadian Ayrshire Breeders' Association, all of whose members are readers of the paper. Members of the Association are invited to send items of interest to Ayrshire breeders for publication in this column

Editor, Farm and Dairy—The clipping sent under the caption, "More Ayrshires for Canada," was misleading, as I learn it referred to an importation sent to the United States. The following, taken from the "Scottish Farmer," of the issue of April 30th, refers to the Hunter importation:

W. F. STEPHEN,
Sec.-Treas. Canadian Ayrshire Breeders' Association.

LARGE SHIPMENT OF AYRSHIRES FOR CANADA

Another large and important shipment of Ayrshire cattle has taken place. Mr. A. W. Montgomery, Lesnessock, Ochiltree, Ayrshire, consigned by the S. S. Athena, from Glasgow, 23 choicely bred animals, to the order of Messrs. Hunter & Sons, of Maxwellville, Ont. These animals have all been selected from herds of repute in various

parts of the country, and much attention has been paid to the milking qualities of the stock from which they have sprung.

From the herd of Mr. Winter, Drumcrae, was secured a grand, big, dark-colored cow, five years old, with deep milking qualities. She is due to calve in August. The Netherhall stock produced three choicely bred females. One was a three year old, due to exceptional promise, and should do credit to the old country when she reaches the other side of the Atlantic. Then there are two big-sized two year olds, which should make typical milk cows, and they also come to the calving in October. Another two year old—a July calf—sired by Borrow-moss Swell, was got from the herd of Mr. R. McKinlay, Billhouse. A number of yearling bulls, possessing the best characteristics of the Ayrshire breed, and of colors most prized in Canada, are sent from the Lesnessock herd. Two of these are sired by Lesnessock Gay Scott, one by Lesnessock Killarney, and one by Lesnessock Sprightly Earl, a Drumcrae-bred bull. Another yearling of large size and very like a corner, bred by Mr. Wallace at Auchinbrair, having for sire Lesnessock Crusader, was also included in the consignment. One large cow, with a beautifully shaped udder and grand big teats—a real commercial sort—was another of the Lesnessock lot. She was bred at Shevalton Mains. Five prime two year olds, due

to calve in the back end of the season, are from Mr. Montgomerie's own herd. Two of them are bred by Mr. Lindsay, Torra, Castleton, and of the famous Glencairn strain; and one at Hacklawhill, and sired by Royal Cunningham. A very promising two year old, up to a big size, and due to calve in July, was taken from the Glenshamrock stock; while a grandly made yearling bull sent the select herd of Mr. E. Reid, Toward.

The famous milk record herd of Mr. T. Clement, Netherton, contributes two finely bred yearling bulls. One of them is from a Castlemains-bred dam, and the dam of the other youngster is a Culoagrie cow. These cattle are sure to do credit to, and a pretty stamp of a heifer, due to calve in October, from the stock of Mr. James Garven, Dalnusternock. A very sweet, thick-set, little heifer, showing a grand udder and teats, was selected from the herd of Mr. James McNeill, Barleith. She should calve in June. From the Harelaw stock there was got a six months old calf of exceptional promise, and a nice, trim and stylish heifer was got from Garclaugh.

Mr. Montgomerie deserves the greatest credit for getting together such a magnificent lot of animals. Stock like this will

do much to uphold the honor of the old country in the matter of producing the finest high class dairy cattle, and their success in the Dominion will, no doubt, induce Lesnessock's patrons to "come again."

CONDITIONS IN THE EAST

When in attendance at the Maritime Winter Fair at Amherst last December, a conference was held with the Maritime Ayrshire breeders. I encouraged them to enter in the Record of Performance Test. They feel the time has come when they should have representation on the Directorate of this Association. They also considered the money spent on the Official Organ could be spent to better advantage. They also requested that the Annual be opened to receive advertisements from Ayrshire breeders, and that more of the Booklets should be published.

We have received 134 new members during the year. We have now the largest membership in our history. Four hundred and fifty-six members' fees were paid in 1909, as follows: Twenty-four paid the time of making out this report there were 55 unpaid fees for 1908 and 68 for their indebtedness to the Association.—Extract from Secretary Stephen's report.

DIAMOND BRAND MANILLA BINDER TWINE

WE GUARANTEE OUR BINDER TWINE TO BE FREE FROM SNARLS, THIN OR UNEVEN SPOTS; AND TO PLEASE YOU IN EVERY WAY, OTHERWISE WE WILL REFUND YOUR MONEY



NOTE OUR LOW PRICES FOR DELIVERY TO YOUR NEAREST RAILROAD STATION

8⁰⁰ FOR 100 LBS.

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Farm Implements in Our Spring and Summer Catalogue

THE T. EATON CO. LIMITED
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This 5-Ton Scale Is Easy To Buy

You need not club with your neighbors to equip your farm with the scale you need—the CHATHAM Pitless Scale. You can afford to buy it yourself. It will save you more than its cost in one season. Up to five tons it will weigh accurately all you buy or sell. You can erect it ready to use in a morning.

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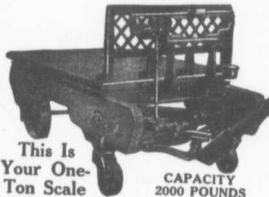
Your CHATHAM Pitless Scale will be YOUR Scale that you can take with you when you move. You can always get for it what you paid for it. And you need no skilled help to set up the CHATHAM—it comes to you complete, with plain directions. Built wholly of heavy steel. Nothing to rust, decay or go wrong. Government guarantees its absolute accuracy. Tested before it leaves the factory. Warranted fully.

This Is The Complete Scale

Bear in mind that you have no hard work to do in setting up a CHATHAM. It is all solid steel, stands on its own feet above ground,—no pit to dig, no fussy preparation needed before you use it. Comes to you so you can be weighing on it in a few hours after you get it. No skilled mechanic necessary at all.

Special Compound Beam — No Extra Cost

This season we include our new Compound Beam with each CHATHAM Pitless Scale without adding a cent to the price of it. You can find no bigger bargain; yet the price is 'way down low. In sections where we have agents we offer special long-time credit terms to those who would rather try the Scale before they pay for it. Write us and ask for full details.



This Is Your One-Ton Scale

CAPACITY 2000 POUNDS

Handy to move about as a wheelbarrow, yet accurately weighs up to a full 2,000 pounds. Swivelled pole and front wheels let you turn it short through doorways and around corners. Strong and staunch, too, like all scales we build.

You'll Never Wear It Out

Main frame is one solid and very heavy casting. Levers are special heavy and strong, so they won't spring under excessive strains. Bearings align themselves, because pivot rests on bearing loop—tilt the scale and it will still weigh right. And the price is very small!

WRITE US AND ASK FOR DETAILS

MANSON CAMPBELL CO. LTD.
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SAVES MONEY— TIME— WORK— AND REALLY COSTS NOTHING

You can easily afford this handsome, practical kitchen necessity. For our special offer (please send for details of it) lets you pay for it out of what it actually saves in lessened grocery bills. You should ask us about it at once.



Whole Table-Top one heavy sheet of

BRIGHT ALUMINUM

You cannot begin to know the CHATHAM by this picture, for the picture cannot show even one of its most pleasing and valuable features—the SOLID SHEET OF BRIGHTLY-POLISHED HEAVY ALUMINUM that forms the covering of the table-top and extension leaves. THE ALUMINUM is extra-heavy weight, pure metal—LOOKS LIKE SILVER—LASTS LIKE STEEL—cannot rust—won't gather dust or dirt—easily cleaned—simply perfect! And this is the ONLY kitchen cabinet you can buy with an aluminum top—which ADDS FULLY FIVE DOLLARS TO ITS VALUE. Yet you pay NOTHING EXTRA for it!

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You must see the Chatham Kitchen Cabinet to appreciate how handy, compact, sensible it is. Exterior of specially-selected black ash, hard as rock and beautifully polished. Panels of golden chestnut. Bake-board, drawers and flour-bin of snow-white basswood. With the CHATHAM everything you use in cooking is at your fingertips—holds 75 pounds!) is right under your hand in easy reach. Sugar canisters (free with every Chatham Cabinet) stand in the shelf-rack. Big, dust-tight drawers hold spoons, egg-beater, funnels, strainers, etc. ample closets for kettles, pans and the like.

Everything in its place—And you can tidy up as you go along when you have a place provided for all the things you now walk back and forth for, between pantry and table. The CHATHAM spares you all those countless steps. Cupboards for jams and tinned foods; three roomy drawers (besides the two large ones) for small packages. High top makes a fine shelf for dishes—enclosed on three sides, and a rod at the back as a plate rack. Fine French plate mirror in center door—fix your hair in a second if any one comes. The CHATHAM is mounted on bull bearing castors. You can readily move it when you are sweeping up. Yet it is most solidly built—nothing shaky or wobbly about it. Whole thing is dust-tight, mouse proof—a permanent, durable, satisfying kitchen help.

Easily moved—go along when you have a place provided for all the things you now walk back and forth for, between pantry and table. The CHATHAM spares you all those countless steps. Cupboards for jams and tinned foods; three roomy drawers (besides the two large ones) for small packages. High top makes a fine shelf for dishes—enclosed on three sides, and a rod at the back as a plate rack. Fine French plate mirror in center door—fix your hair in a second if any one comes. The CHATHAM is mounted on bull bearing castors. You can readily move it when you are sweeping up. Yet it is most solidly built—nothing shaky or wobbly about it. Whole thing is dust-tight, mouse proof—a permanent, durable, satisfying kitchen help.

YOU SHOULD NOW INVESTIGATE

Yet, with all these conveniences—features found in nothing else—the cost of a CHATHAM is probably less than you imagine. You should write us for the address of our agent nearest you. He can name you a price that will surprise—and he will gladly show you the Cabinet and point out its merits. Allow us to send you illustrated, explanatory



And I know we build it so well it can safely be GUARANTEED to you.
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