

FARM AND DAIRY

RURAL HOME

Dept. of Agric. Dec. 18
Dairy & Cattle St. Free

PETERBORO, ONT.

JUNE 6

1912.



IT IS NOT WHAT IT COSTS BUT WHAT IT WILL DO THAT COUNTS

The dispatch with which we perform our various farm operations determines largely our financial success. For instance: We lose each year \$20 on every acre of our fields not tile drained. We cannot afford therefore to extend our tiling operations over several years; a ditching machine will cover the whole farm in a few days. The cost and time of cultivating the corn field is cut in two by the use of the two row cultivator. But in no case is expediency of greater value than in the haying season when, between showers, we must harvest a large acreage in a few days when the feed value of the crop is greatest. It is not the first cost of the modern implement that we should consider, but its future value as a labor and time saver.

-Photo taken by an editor of Farm and Dairy on J. C. Bale's farm, York Co., Ont.

DEVOTED TO
BETTER FARMING AND
CANADIAN COUNTRY LIFE

ISSUED
EACH WEEK

Only \$1.00 a Year
PRICE TEN CENTS.

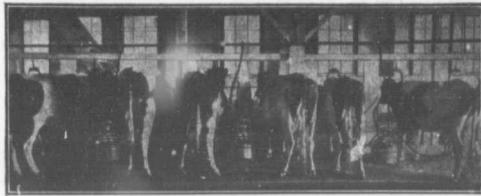
A Boon To Dairymen

You can have relief from "All-the-year-round" drudgery of hand milking.

You can be free from the trouble and expense of careless hired help.

You can increase your income, since you can milk a larger herd with less labor and expense
By using a

B-L-K Mechanical Milker



A Perfect Milker, a Great Labor Saver and Profit maker

Many B-L-K Milkers are now in use on Canadian farms and are giving great satisfaction. The following and many other Canadian Farmers use the Burrell-Lawrence-Kennedy Milker:

F. L. Green, Greenwood
S. Leslie, Norval
R. E. Gunn, Beaverton

T. Eaton & Co., Toronto
J. McFarland, Huntingdon
Peter Stark, White

Call and see one of these B-L-K Milking Machines in actual operation

Costs \$287.90 for Two-Machine Outfit

Ask us to send you a statement of the saving, which can be effected with our Milker in dairies of 25, 50 and 100 cows.

A "Great" Money Saver for Milkmen

A B-L-K Milker user who has been milking a herd of 100 cows continuously since early in 1908, and who is making a high grade of sanitary milk, has furnished us with a detailed statement of the actual cost of machine drawn milk as compared with a hand drawn product in the same dairy.

He is taking great pains in the care of the milk and the way the cows are handled, but he is

Milking 100 Cows in Two Hours

with six machines, operated by two men and a third to carry the milk, and effects an

Actual Saving of \$1,568.00 a year

He makes this saving with a B-L-K equipment which cost him complete \$822.25.

We invite you to write us for full particulars and estimates of cost for outfit suited to your need

D. Derbyshire & Co.

Head Office and Works: BROCKVILLE, ONT.

Branches: PETERBOROUGH, ONT. MONTREAL and QUEBEC, P. Q.

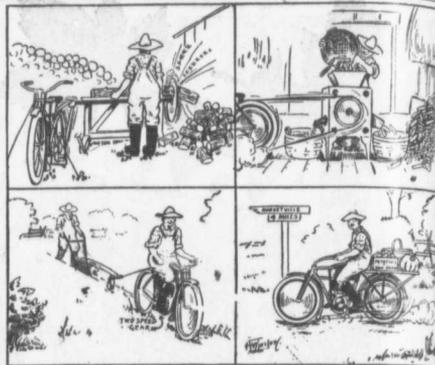
WE WANT AGENTS IN A FEW UNREPRESENTED DISTRICTS

OUR most successful business men and advertising patrons appeal to our people—the Dairy Farmers

Right Through the Summer Season

They recognize that this is the flush season with Dairy Farmers and a time when they have many needs and are buying heavily.

It will profit you to take a tip from these successful advertisers and have your line announced to our people—the Dairy Farmers—every week in Farm and Dairy right through this great buying time of summer.



UP-TO-DATE FARMING

—Courtesy, "Motor Culture"

Satisfied Farmer Auto Owner

S. A. Thompson, Northumberland Co., Ont.

I consider the auto of more use to us farmers than to any other class of men; even though we have to keep horses as well. With the auto I can do a day's work and then go to town eight or ten miles away. Formerly, even though I kept a good driver, I would lose half of a day at least going to town. And time is money for the farmer.

The auto owning farmer can also take his family on a holiday trip 20, 30, or 40 miles away, stay the day, and be at home to do his chores; something every farmer should be around to attend to. If he had to drive a horse on such a pleasure trip, especially on a hot day, it is likely we would stay at home. And who needs a holiday any more than we farmers?

Two or three weeks ago I enquired on the "phone 20 minutes to seven o'clock and found out that I had some fruit trees just arrived at the station six miles away. I went for them and was home again at eight o'clock, saving at least half a day, and had my trees in a better condition than had I brought them on a wagon.

I have visited more friends and seen more of the country around us since I have had my car (September, 1909) than I did in the last 10 years.

To Calculate Power Needed

Six horsepower will drive a grain separator and thresh 2,500 bushels of oats in 10 hours.

Three horse power furnishes all power needed to make 5,000 pounds of milk into cheese in one day.

Six horse power will run a feed mill grinding 20 bushels of corn an hour.

Five horse power grinds 25 to 40 bushels of feed, or 10 to 12 bushels of ear corn an hour.

Seven horse power drives an 18-inch separator, hurr mill and corn cob crusher and corn sheller, grinding from 12 to 15 bushels of good fine meal.

Six horse power runs a heavy apple grater, grinding and pressing 200 to 250 bushels of apples an hour.

Five horse power will drive a 30-inch circular saw, sawing from 50 to 75 cords of stove wood from hard oak in 10 hours.

Six horse power saws all the wood four men can pile in cords.

Twelve horse power will drive a 50-inch circular saw, sawing 4,000

feet of oak or 5,000 feet of poplar a day.

Ten horse power will run a 16-hp cutter and blower, and elevate the ensilage into a silo 30 feet high at the rate of seven tons an hour.

One horse power will pump water from a well of ordinary depth in sufficient quantity to supply an ordinary farm-house and all the buildings with water for all the ordinary uses.

Couldn't Run a Wheel Barrow

By Peter McArthur

There are now so many implements in use for various kinds of farm work that a farmer needs to be something of a mechanic. Only in that way can he get the best results. Some farmers can take twice as much work as others out of their binders and plows and drills, simply because they know how to run them properly. Others are so dense that they can use a good machine to pieces in a year. These are the sort of men who justify the scorn of the Irish contractor, whose wife was approached by one of his shovels men.

"I'd like to give up shovelling," said the applicant. "Can't you give me a job with a wheelbarrow?"

"What?" asked the boss, earnestly. "You want to run a wheelbarrow, do you? Now, what the devil do you know about machinery?" There are many men trying to run their binders and similar implements that are really not qualified to run a wheelbarrow.

To Prevent Tools From Rusting

Any steel tool will rust if exposed to damp air, yet I found that tools subjected to the following treatment every three months will not rust, actually thrown on the ground or exposed to hard rain.

Take two parts each of graphite and tallow and one part gum sulphor; melt together, and if not soft enough to form a stiff paste, add more tallow or lard. Remove all rust from the steel surface, wipe dry, and apply the paste. Let it remain on for hours, then rub dry. Unless the rust is needed, even longer than one day will be still better for the tool to be covered with the preparation.

The above preparation has the effect of a coating of oil though every wetting has apparently been removed in months.—H. H. F.

Renew your subscription now.

To S...

EXTR...

CANADIAN A...

To every own...
winning a fir...
ation at Toro...
original Mol...

\$25.00

as an extra p...
must have be...
the time of f...
tent of not le...

The only p...
er stating thi...

MOL... ME A...

The best

There is...
mer, Race H...

Stock Bree...
man, &c., i...

Isles that...
Molassine M...

for his stock...

MOLASS...
is a food and...
food stuffs, a...

all animals i...
Prevents an...

worms.

HORSES will...
not chafe from...
the suitable fo...

Animals to the...
methods of feed...

MILCH COW...
make rich heavy...
milk when cows...

STOCKERS c...
else. It aids a...

PIGS will b...
fed on Molassine M...

SHEEP AND...
mutton and most...

POULTRY w...
fed on Molassine M...

MOLASS...

Order from your nearest

Fill in a...
one of our s...
souvenir yo...

To The Molassine Co.
402 Beave...
Mo...

Please send m...
also full particulars

Name of your f...
.....
THE MOLASS...
L. C. FRIDG...

To Stock Breeders

ANNOUNCEMENT OF
EXTRA CASH PRIZES

AT
CANADIAN NATIONAL EXHIBITION, TORONTO, 1912

To every owner of an animal (horses, cattle, sheep or pigs) winning a first prize at the Canadian National Exhibition at Toronto, 1912, that was fed regularly with the original Molassine Meal, made in England, we will give

\$25.00 IN CANADIAN GOLD

as an extra prize. The only condition is that the animal must have been fed regularly from July 1st, 1912, up to the time of the Exhibition on Molassine Meal to the extent of not less than **three** quarts per day.

The only proof we require is a certificate from your dealer stating the amount of Molassine Meal you purchased.

MOLASSINE MEAL

The best feed for Live Stock known to Science

There is hardly a Farmer, Race Horse Trainer, Stock Breeder, Horseman, &c., in the British Isles that does not use Molassine Meal regularly for his stock.

MOLASSINE MEAL is a food and replaces other food stuffs. It will keep all animals in good health. Prevents and eradicates worms.



The Original Molassine Meal, made in England, bears this Trade Mark on every bag.

HORSES will do more and better work, keep in better health and do not chafe from the harness so much when fed on Molassine Meal. Is equally suitable for heavy draft horses, hunters and race horses, and will bring show animals to the pink of condition quicker and better than any ordinary methods of feeding.

MILCH COWS will increase the flow and quality of their milk and make rich flavored butter and cheese, and will prevent any taint in the milk when cows are fed on roots.

STOCKERS can be fattened quicker on Molassine Meal than anything else. It aids and digests their other foods and keeps them free from worms.

PIGS will be ready for the market ten days to three weeks earlier when fed on Molassine Meal than when fed on any other food.

SHEEP AND LAMBS, fed on Molassine Meal, produce the finest mutton and most obtainable, securing top prices.

POULTRY will fatten quicker and the hens will lay more eggs when fed on Molassine Meal.

MOLASSINE MEAL is put up in 100-lb. bags.

Order from your nearest dealer but be sure and get the genuine. Be sure that the Trade mark is on the bag, as above.

FREE SOUVENIR.

Fill in and mail the following coupon to-day and get one of our souvenir gifts free. Put a cross against the souvenir you would like to have.

To The Molassine Company, Ltd.
402 Board of Trade Building,
Montreal, Que.

Distributors for Canada for Molassine Meal.
Please send me your free souvenir (Fountain Pen, Pocket Pen or Match Box) also full particulars regarding Molassine Meal.

Name.....

Occupation.....

Name of your feed dealer..... Address.....

THE MOLASSINE COMPANY LTD., LONDON, ENG.

L. C. FRIME CO., LTD., Distributors, 402 Board of Trade, Montreal. 427

A FARMER'S POWER HOUSE ON WHEELS

Complete with Line Shaft, Truck, Pump Jack and interchangeable Pulleys capable of 80 changes of speed.

F. C. S. FACTORY

An engine that carries its own line shaft, pulleys, belt tightener and hangers. The Gilson 60 Speed Engine is a complete power plant in itself. You can haul engine anywhere, attach it and get just the speed desired—the only engine of its kind made. Gives 100 per cent service. Runs the whole farm. Goes like sixty—sells like sixty—has sixty speeds. 17 H. P., also 3 H. P. and 6 H. P. Engines up to 27 H. P.

WRITE TODAY. Write at once for illustrated, descriptive literature with full information. Agents wanted.
GILSON MFG. CO., Ltd. 62 York Street
Guelph, Ontario

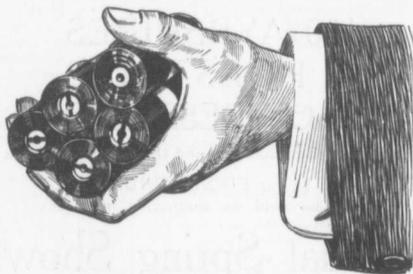


GILSON
"60 SPEED" ENGINE



13 - A Deep Well Developed Individual of Good Breeding
Springbank Butter Boy, 14 months; dam is Queen's Butter Girl. Sweepstakes cow at Ottawa Dairy Test and record of over 24 lbs butter in 7 days. Sired by Wopke Paama. Heading H. G. Bonfield's herd, Woodstock, Ont., who is consigning to the June 12 sale four females in calf to this bull.

—Photo by an editor of Farm and Dairy.



Just an easy handful of

KODAK FILM

Will tell the story of your vacation. There's film for a dozen pictures in each cartridge, the weight is trifling.

The Kodak itself slips into the pocket and the picture making is simple from start to finish. Press the button—do the rest—or leave it to another—just as you please.

The Kodak system does more than simply remove the inconveniences of the glass plate and dark-room methods of picture taking—it gives better results. There's no question about the advantages of daylight loading and daylight development by the Tank method. Thousands of the best professional photographers now use the Tank system for their work, even though they have the experience and the facilities for dark-room work. They have adopted the Tank because it gives them better results. If it's better for the professional there's no question about it for the amateur.

You can take good pictures with a Kodak. You can finish them well by the Kodak system without a dark-room—or if you prefer, can mail them at slight cost and no danger of breakage if you wish to have a professional finisher do the work for you.

Ask your dealer or write us for Kodak catalogue.

Kodaks, from \$5.00 up. Brownie Cameras (they work like Kodaks), from \$1.00 to \$12.00.

CANADIAN KODAK CO., Limited
TORONTO, CAN.

Read
The Public

What would all the land in Canada be worth without any population? Have you noticed how land grows in value as the number of people increase?

This vital connection between the presence of population and the value of land is one every intelligent farmer should understand. If you are interested in the land question **THE PUBLIC** will probably be invaluable to you.

Send \$1.50 for fifty-two numbers and a FREE copy of "The Land Question" by Henry George.

The Public, Ellsworth Bldg., Chicago, Ill.

Read
The Public

What I Think of the Vacuum Cleaner

M. Ethel Nixon, Brant Co., Ont.

I have learned by experience that a vacuum cleaner is absolutely necessary in the home.

Last year at spring house-cleaning we did not have one of our own, and well I remember how there was a mad rush to get all the rooms in readiness for the man with the vacuum cleaner to come and do every rug and carpet in the whole house in one day; as he was so rushed that was all the time he could grant us.

This year we have one of our own—a "King Edward"—manufactured by the Geo. H. King Co. of Woodstock, and there is no hurry to do things up in one day, as per usual, but we take our time and do it thoroughly.

USE IT EVERY LITTLE WHILE

We use our cleaner about once in three or four weeks on the carpets in the living rooms, and thus keep them free from dust. I have seen a good many vacuum cleaners, but think ours the best of them all. Aside from doing excellent work—and it sure "sucks" up the dust in a most amazing style—it is the neatest little rig of any I have seen. The box is so nicely finished that it does not mind having it occupy a corner of the living room with the attachments stored away in a near-by closet where handy. We have several attachments for ours, and where one nozzle fails to pick up the scraps another will. For instance, when I am running the dust nozzle and come to a bit of something that has been dropped on the carpet, just a simple twist of the wrist removes the dust nozzle and slips on a small square one, which I carry in a big pocket of my apron when using the vacuum cleaner. One nozzle fitted with rubber we find so convenient for cleaning furniture, another fitted with felt saves stooping when cleaning polished floors and margins, and still another may be slipped on for going into corners and around heavy furniture, such as one does not care to lift or move very often.

IMPROVES THE CARPETS

I have heard people say that vacuum cleaners were very hard on carpets, especially those with a high pile, but I can prove by experience that they will improve the appearance of a carpet. An Axminster carpet in our home has a very high pile, and on which we at first wondered



A Needed Farm Home Labor Saver

The vacuum cleaner gets all the dust and gets it quickly and easily, and keeps carpets, hangings and upholstery clean and sanitary. Photo taken by an editor of Farm and Dairy and showing a vacuum cleaner in use in the farm home of E. L. Nixon, Brant Co., Ont.

whether or not to use the vacuum cleaner, but decided to give it a trial, and it came through the cleaning most beautifully, the nap standing up straight and clean looking as when new.

Were I to say more in favor of the vacuum cleaner it would be the "We wouldn't part with our little vacuum cleaner for a farm!"

Do not pester, but work when we work and rest when you rest. Pe work away and play when you play. Do not fret, do not worry, and do not nurse troubles. This is such a peccious habit, and one that venge much evil to us and ours in the should-be-happy world.

I am cutting out several other papers to take Farm and Dairy, and think it is the only paper that is taking up the farmers' interests as a farm paper should.—Walter McLellan, Perth Co., Ont.



"MERCENA SCHULLING," dam of "Prince Abbecker Mercena," the four-year-old stock bull of A. E. Hulet, Norwich, Ont., to be sold in the consignment sale of the Oxford Dist. Holstein Breeders' Club to be held in Woodstock on June 12th. The cow is bred and owned by Jas. Restie, Norwich, and has just dropped her 1912 calf at 19½ years of age. The best judges of Holsteins invariably pronounce her one of the very finest cows in Canada. She comes from a splendid line of country. Her dam sold for \$1,500 cash to Fred Field, Brookton, Mass. Secure a catalogue from Geo. Rice, Tilsonburg, Ont., and attend this sale, which promises to be one of the very best ever held in the country. (Adv.)

—Photo by an editor of Farm and Dairy

Last Call
For the Greatest Sale of the Season

Held under the auspices of the District of Beauharnois Live Stock Breeders' Association, at

Ormstown, Quebec, June 14

- 100 AYRSHIRES
- 30 HOLSTEINS
- 20 CLYDESDALES

The Pick of Beauharnois and the Pride of Canada

This will be our FIRST ANNUAL SALE
It will be held in connection with the

Annual Spring Show

June 12th, 13th
and 14th



Our Spring Show is the pride of our district. Come to it and see the best live stock that the breeders of our famous district have imported and bred.

Breeders from a distance will find this a most favorable opportunity to visit our far-famed district, and at the sale, on the last day of the show, get, at their own prices, choice of this live stock—the best in the district, better than can be had elsewhere.

NEIL SANGSTER, President

J. P. CAVERS, Chairman Sale Committee
ANDREW PHILLIPS, Auctioneer

J. C. BRYSON, Sec. - Treas.
ORMSTOWN, QUE.

Don't Fail to write the Secretary for a Catalogue

Issued
Each Week

Vol. XXXI.

EXPER

Electric Power has su
also tells of h

BOTH experience
lished the conclu
dairy farming, t
must have all its
power and its judi
the successful orga
average farm. Elin
far as possible, an
saved but the result
established is of
ing with such a nerve
yielding dairy cow.
link between big vie
are possible at one
the bulk of the dr
who follow other me
ted.

We take "farm p
devices for the
used to advantage
Ontario dairy farm.
any assertions we wi
experience of years o
from that which ha
observation of the w

EXPERIENCE W
We at Durbin
tric energy for all
half. It is procure
company, and at m
nurs found it most
A 15 horse power m
sides, grinds from 2
an hour, cuts the st
the root pulper. Si
ing and run the m
throughout our b
revolved on or off
ing of safety, are a
be appreciated whe
of the Hydro Electr
cally electrify Old G
greatest boons that
at our disposal.

For those who h
electrical improve
engine as a safe an
obtaining power fo
live that on dairy
sires, keeping from
of a gasoline engine
langer a luxury but

MAKE

With the engine
location, which con
insurance compan

"This is one of a se
funa has written fo
management on Dur
lars in District No.
Competition.

Issued
Each Week

FARM AND DAIRY

RURAL HOME

Only \$1.00
a Year

Vol. XXXI.

FOR WEEK ENDING JUNE 6, 1912.

No. 23

EXPERIENCE WITH FARM POWERS ON A PRIZE-WINNING FARM*

R. E. Gunn, Ontario Co., Ont.

Electric Power has supplanted all others in performing many operations on Mr. Gunn's Farm. He also tells of his experience with Gasoline, Steam and Wind Power. Valuable practical Suggestions from a practical man.

BOTH experience and observation have established the conclusion to my satisfaction that dairy farming, to be conducted successfully, must have all its branches harmonized. Farm power and its judicious use enters largely into the successful organizing of the work on the average farm. Eliminate manual drudgery as far as possible, and not only is time and money saved but the resultant pleasant frame of mind so established is of inestimable value when dealing with such a nervous animal as the good yielding dairy cow. In this way we establish the link between big yields and easy work; if these are possible at one and the same time surely the bulk of the drawbacks advanced by those who follow other methods of farming are nullified.

We take "farm power" to mean the mechanical devices for the saving of labor that can be used to advantage on an intensively operated Ontario dairy farm. While treating the subject my assertions we will make are drawn from the experience of years on Dunrobin Stock Farm, or from that which has come directly under the observation of the writer elsewhere.

EXPERIENCE WITH ELECTRIC POWER

We at Dunrobin Stock Farm have used electric energy for all purposes for a year and a half. It is procured from a small local power company, and at not too cheap a rate. We have found it most adaptable to farm purposes. A 15 horse power motor, costing \$260, fills the silos, grinds from 2,000 to 3,000 pounds of grain an hour, cuts the straw and hay, and operates the root pulper. Smaller motors do the pumping and run the milking machine. The light throughout our buildings, which can be switched on or off at will, giving withal a feeling of safety, are a convenience which can only be appreciated when enjoyed. The new policy of the Hydro Electric, which intends to practically electrify Old Ontario, will be one of the greatest boons that we farmers ever had placed at our disposal.

For those who have no chance to profit by electrical improvements, there is the gasoline engine as a safe and practically sure means of obtaining power for farm operations. We believe that on dairy farms of from 100 to 200 acres, keeping from 15 to 50 cows, the installing of a gasoline engine or some such power is no longer a luxury but a necessity.

MAKE DRUDGERY EASY

With the engine in a well-considered central location, which conforms to the demands of the insurance companies, with very little shafting,

*This is one of a series of three articles that Mr. Gunn has written for us, telling of his methods of management on Dunrobin Stock Farm, the first prize farm in District No. 3 of the Interprovincial Farms Competition.

a few pulleys, and a little belting, it is possible to do a large number of the "drudgery" jobs of the farm. The cream separator, the cutting-box, root pulper, fanning mill, grain grinder, grindstone, and the pump (either direct or by jerk-rod) can all be operated by a three to six horse power gasoline engine at an outlay ranging from \$225 to \$400. In selecting an engine we would always choose one of the best makes. There are a number of cheap makes of engines on the market, but they have not proven satisfactory.

One thing to be remembered when installing a gasoline engine is the fact that nearly all insurance companies have a joker in their policies that makes their protection to the user null and void if the installation of power is not according to their specifications. Look up your policies and see your agent; then send him a notice in writing that you are installing an engine and have his company give you permission to use the same. This will eventually save a lot of trouble.

Other powers in general use that we have had experience with are steam and wind. Steam cannot be used so generally as either of those powers mentioned nor as generally as wind power. It, however, has its place. In all cases the fuel and water supply enter into the considerations in operating. We had a steam outfit, but discarded it owing to the lack of economy in operating.

Wind power smacks too much of depending on the elements. Farming is at the mercy of the seasons to too great an extent as it is, without depending on the whim of the winds to do any amount of power work. We had a power mill, but after getting up at night a few times to do the grinding we relegated this power to its proper place, and now use it only for pumping water where we have storage tanks in the pasture to tide over the calm spells.

THE CREAM SEPARATOR DISCUSSED

A discussion of farm power would not be complete without a reference to the cream separator. This machine is one of the greatest savers of profits we have. While the separator is familiar on every dairy farm handling cream, still a hint or two may not be amiss. If the dairy is large enough to have a small boiler for generating steam for washing purposes, then the separator that will give the least trouble is the steam turbine. Whatever the kind used, get one, two, or three sizes larger than needed and run it by power, and you will never be sorry you made the small additional outlay on the start.

A device that we use on Dunrobin Farm is a pump that delivers all the skim milk from the dairy room to the hog pen. A brass-lined steam pump taking about a quarter horse power to operate we installed in the dairy, and pipes (one inch galvanized) were laid under the frost to the hog-pen 500 or 600 feet away. This outfit has been in use for two years or more, and gives perfect satisfaction, saving its installation cost many times over. By a system of valves, steam can be turned through the same pipe and food cooked in the hog-pen when required.

OTHER MONEY SAVERS

We have various other additional mechanical contrivances. We find that elevators and a system of spouts, however rough and ready, save a lot of work in handling chop. Litter carriers, where used in conjunction with an extra wagon, sleigh, or, in season, a manure spreader that can be left under the dumping place so that the manure may be drawn direct to the fields summer or winter, are a very economical installation. We find on referring to our books that it has cost us in the past for the men forking on to the wagon of the manure in the yard under old methods, over \$180 per annum. This does not cover spreading cost, but is the cost of unnecessary handling, and can be dispensed with under a system such as we suggest. A full system of carriers can be installed in any barn for around \$100, and usually for about half of this amount.

(Concluded on page 11)



Fruit Growers Appreciate Up-to-date Machinery

Power sprayers are now used in every part of Canada where fruit growing is conducted at all extensively. These spray machines were a curiosity a few years ago. Fruit men know a good thing when they see it, and are adapting themselves to changing conditions that call for more and better machinery. The photo reproduced herewith is of a sprayer in operation in Essex Co., Ont.

—Photo courtesy W. E. J. Edwards, B.S.A.

Make Money by Reducing Expenses

J. H. Grisdale, Director, Dom. Exp. Farm, Ottawa
In the last 12 years, by the introduction of large machinery, we have reduced the whole cost of farming operations at the Central Experimental Farm by nearly one-half. We have cut off at least 40 per cent, and at the same time we have increased the returns from these fields by 100 per cent.

The two-furrow plough will cut the cost of ploughing in half if we have the right kind of horses. A man with a single walking plough and two small horses can do only so much ploughing in a day. Let us suppose it is 1.5 acres. I know that with three good heavy horses, such as every farmer ought to have, we can plow three acres with a two-furrow plow and it will cost only half as much an acre. If plowing an acre with a single plow cost \$2 I believe that with a two-furrow plow it will cost only \$1. That is our experience at Ottawa. And if we use a steam plow or traction engine it is cheaper still, but I do not say that it is advisable for the ordinary farmer to try that. We find we can plow the land for less than \$1 an acre by gasoline or steam. But every farmer ought to have a two-furrow plow.

IMPROVEMENTS IN THE DISK HARROW

When we get the land plowed the next thing is to disk harrow it. I suppose every farmer has a disk harrow. It has undergone a revolution in its construction. The average disk harrow of 20 years ago was a little bit of a thing with 12 or 14 disks that joggled along on top of the ground and we thought it was doing fine work. The disk harrow we have to-day is as much superior to the common old disk harrow as the first disk harrow was to the stiff tooth harrow of 20 years ago. We have disk harrows to-day that will cut the cost of cultivation in half. We have large disk harrows for three horses and four horses.

It costs us to prepare the land ready for the seeder 90 cents an acre with a small disk harrow, 70 cents an acre for the three-horse disk harrow and 45 cents an acre with the big disk harrow, double cutaway. The large harrow costs a very little more than the common disk harrow. If there are holes or stony portions it will miss little spots, but the double cutaway disk harrow works satisfactorily and will do the work in half the time that a single disk harrow will, and it will do a better job.

EFFICIENCY JUST ONE-HALF

How many times have we seen a farmer walking behind an eight or 10-foot harrow and a good team in front when he might as well have been walking behind a 20-foot one. There is not even the excuse of uneven ground because the harrow undulates. Of course that is objectionable in a small field.

Then again we should use big harvesting implements as well as big seeding implements. Up to three years ago we used at Ottawa a 12-point marker for the seeder. Three years ago we introduced the 20-point marker that does just about twice as much as the 12-point. We used to be able to sow 10 acres with one man and two horses; now we sow 20 acres with one man and three horses and do the job just as well.

Now don't these look like big figures? They

are startling. But any of us can apply them on our own farms to-day. If our farms bring in \$1,000 is it not worth while considering changes, which, by a gradual introduction, will cost practically nothing, can bring the income up to \$1,500 or \$1,600, and do the work at less cost. These are considerations which are worth every farmer's attention.

My Favorite Implement

T. Baker, Durham Co., Ont.

There are many farm implements that commend themselves to my admiration, but of all up-to-date farm machinery the seed drill is one of the most useful, time and labor-saving implements we have. When the writer was nine or 10 years old, which is nearly 50 years ago now, as soon as



Deep Plowing Calls for Great Power and Improved Implements

Our farmers are getting away from the idea that shallow plowing is desirable on all soils. We realize that on certain soils deep plowing that increases the space available for root growth and enables the soil to retain a maximum amount of moisture, is better than cutting a thin furrow. The disk plow and traction engine as here illustrated makes very deep plowing easily possible.

sowing started he was compelled to quit school and follow the harrows. Some land at that time was single plowed, some plowed light with the gang plow and for much of it a heavy pair of harrows was used before seeding. Then the grain was sown by hand. I followed with the harrows. If grass seed was sown the men sowed that the opposite way from the grain. I again followed with the harrows.

I have sown many hundreds of acres of grain since with an up-to-date seed drill; cultivating and sowing the grain and grass seeds with once going over the ground, one man doing as much and better work in one day than one man could do in three days in the old way.

AIDS IN EARLY SEEDING

It is an incontestable fact that the sooner grain and seeds are sown after land is ready, the more sure we are of a good stand and a good crop. The seed drill enables us to finish seeding much sooner than the old way. This is a great pecuniary advantage as we get a better crop, besides having more time to devote to other pressing work.

A seed drill can be used for many purposes besides sowing grain. With the spring teeth it

(Continued on page 14)

Conveniences in My Stable

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

It is profitable from a financial standpoint, better for the stock, and a great deal easier and satisfactory for us farmers who look after stock to have modern conveniences in our stables. Feed carriers, litter carriers, water systems from which stock can get their supply at will, and cement floors, are things that can be added to any stable at a comparatively small outlay; especially if the work is done in winter or slack time.

The cost of these conveniences will depend a good deal on the layout of the buildings. If a farmer is building a new barn provision should be made for modern conveniences and the stables arranged to be convenient. I observe, however, that buildings built some years ago, although substantial, were not as well built with an eye to conveniences. I have had to deal with one of these barns.

JUST WHERE IT IS WANTED

I have rearranged my barn and stable so that feed and straw can be put down where it is handy to use in the stable. I also have a meal bin (capacity 150 bushels) is a convenient place in the stable, into which the meal runs by gravity from the grinder in the granary above.

Ensilage, cut feed, roots, etc., are all conveyed from the feed room at the end of the stable to the stall by means of a feed carrier of my own manufacture. Those on the market were far too small to suit my requirements, and with the one I have one person can feed a large number of cattle in a short time. This carrier, including time for making at \$2 a day, cost \$8. The track, which is steel, cost eight cents a foot, including hinges.

DOESN'T TRUNDLE A WHEELBARROW
I have a Beatty Bros. line carrier and track all through the stables, box-stalls, and pig pen. The manure is dumped directly from the carrier on to sleighs, trunks or spreader, taken direct to the field and spread. In cold weather the load is kept in a shed. At

other times it is outside and the carrier is run out on a swing pole. This carrier adds enjoyment to a part of the chores that otherwise is drudgery, especially when a wheel barrow has to be run through snow banks or mud.

The floors in my stables were at first paved with cobble stone. It was impossible to keep them absolutely clean. I have had those floors all covered with cement. Cleaning the stables is now an easy matter.

These improvements I have mentioned add a great deal to the conveniences of the stable. But none of them are equal to a complete water system. I use both well and cistern water. The power windmill on the barn pumps the water from the barn well into an elevated tank in the barn, and the pumping windmill at the house pumps the water from the house well into the house tank or to the barn elevated tank as desired.

I have galvanized basins between each pair of cattle. The basins are kept nearly full by means of a float which regulates the inlet valve in the feed box. The feed box receives its flow from the

(Continued on page 14)

*This is one of the series of articles that Mr. Northcott will write as required of him by the rules of the Interprovincial Prize Farm Competition conducted by Farm and Dairy in which he was a successful competitor.

My First Season

R. A. Penhall

We bought our machine last of June. It is used it as our business expanding, up to the hills, with a total cost of \$1,000. We always drove the when we wanted it clear ourselves. We had a trouble in learning to drive. After the third time out we felt able to handle the car with fair degree of proficiency and took all our instructions from the book that came with the machine.

Frequently when the teams were busy on the farm we used our car to deliver cream and milk to the city and keep our stock supplied with chop and bran from the mill. Our car is not well adapted for that kind of work, but by exercising a little care we get along very nicely and with the team on the important to keep the getting very loath to transportation when the auto into requisition are we enabled to

We have a dairy of sufficient help we to be at home to be with the aid of our friends and enjoy frequently make round or two occasions 50 to our dairy work. Station is available to give our auto credit

The Prize

J. Malcolm

I used to think it repairs for our impromptu robbery, if the time element that it the broken parts. The boys bring a cog wheel or last fall. It looks when the wheel repairs. He came over. After he had talked down and went home

Here is the way went to the agent actually, the agent did was a part of the apt To get it for my neighbor in Hamilton, Ont., 25 cents. When the had to be taken for that repair, wrap it man; then there was from Hamilton to agent had to take neighbor on the pl take a few minutes books, and then the neighbor wasted charging 75 cents.

Even in the small keeps in stock there

My First Season With an Auto

R. A. Penhale, Elgin Co., Ont.

We bought our machine last year about the first of June. It is a five-passenger car. We used it as our business and pleasure demanded, travelling up to the present time, about 2,700 miles, with a total cash outlay of \$35 for upkeep. We always drove the car ourselves, cleaned it when we wanted it cleaned and polished the brass ourselves. We had no trouble in learning to drive. After the third time out we felt able to handle the car with a fair degree of proficiency and took all of our instructions from the book that came with the machine.

Frequently when the teams were busy on the farm we used our car to deliver cream and milk to the city and keep our stock supplied with chop and bran from the mill. Our car is not well adapted for that kind of work, but by exercising a little care we get

along very nicely and saved many a day's work with the team on the farm when it was very important to keep the horses at work. We are getting very loath to take any other means of transportation when it is at all possible to call the auto into requisition, so pleasantly and quickly are we enabled to move along.

We have a dairy farm, and on account of lack of sufficient help we are almost always required to be at home to help with the milking. But with the aid of the auto we are enabled to visit our friends and enjoy the social side of life. We frequently make round trips of 20, 30 and on one or two occasions 50 miles, and get home to attend to our dairy work. No other means of transportation is available to us for such purposes. We give our auto credit for many pleasant outings.

The Price of Repairs

J. Malcolm, St. John Co., N. B.

I used to think the price we farmers pay for repairs for our implements an outrage. It is sheer robbery, if we do not stop to consider the time element that enters into the replacement of the broken parts. For instance, one of my neighbors broke a cog wheel on his new manure spreader last fall. It looked like a 10-cent job, but when the wheel arrived the agent charged him 75 cents. He came over to me to ventilate his rage. After we had talked the matter over he calmed down and went home satisfied.

Here is the way we figured it out: First, he went to the agent and asked for the wheel. Naturally, the agent did not have it in stock, as it was a part of the spreader that very seldom broke. To get it for my neighbor in time the head firm in Hamilton, Ont., were telegraphed. There was 25 cents. When the telegram was received a man had to be taken for a few minutes at least to get that repair, wrap it up and send it to the express man; then there was the expressage all the way from Hamilton to St. John, N. B. Then the agent had to take a few minutes to call up my neighbor on the phone, his horse had to take a few minutes to make a proper entry in the books, and then there was the agent's time that my neighbor wasted in "calling him down," for charging 75 cents.

Even in the small repairs that the agent always keeps in stock there is an enormous loss. For in-

stance, every time the style of a machine changes, and that happens frequently in this progressive age, the immense stock of repairs held in every part of the country represents almost a total loss. And then no one can tell with certainty just what repairs will be needed in a season. A great quantity may be held in stock that prove to be not needed. Viewed in this light it is easily seen that our manufacturers are not trying to work a "get rich quick" game in the matter of repairs



The Auto is Finding a Place in our Farm Economy

Time was when the automobile was considered a most expensive luxury for the very rich. Although the auto is still an expensive machine, it is now being put to economic use. Auto trucks are common on city streets. Mr. T. L. Dunkin, an Oxford Co., Ont., dairyman, is making good use of the auto on his farm.

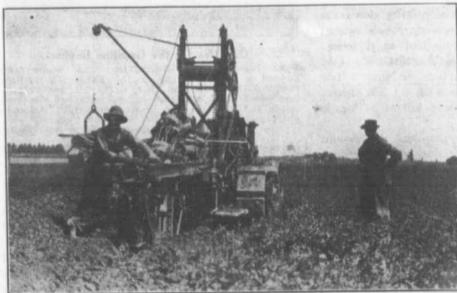
—Photo by an editor of Farm and Dairy.

for farm implements.

ARE REPAIRS ECONOMICAL?

Does it not pay to carry the repair idea too far anyway? I have seen men, who thought they were economical, working with machinery that was mostly repairs. I have seen that complicated mechanism, the binder, looking like the hired man's overalls—mostly patches. For my own part, I prefer to sell the old machine at the best price I can get when repairs become too frequent and buy a new one.

Water Power Utilized.—I have made use of a natural water power on my farm for performing many farm operations. A dam made of logs and faced with stone makes a lake one and a half miles long and gives me a good supply of water with a



An Efficient Laborer that Never goes on Strike

Ditching machines are now in use in several provinces and giving good satisfaction everywhere. Farmers can't afford not to tile their land. In many cases labor cannot be gotten at any price. The machine ditcher is proving an efficient substitute for hand work. In an adjoining article H. C. Nixon, a drainage expert, gives more information regarding this method of preparing for tile.

10-foot fall. I have a water wheel three feet in diameter and with the power developed I grind grain, saw wood, run the grind stone and also manufacture ahingles.—George Turnelliff, Hastings Co., Ont.

Some breeders are losing their heads over sise in draft horses. Those of us who are wise will work for both sise and quality.—C. W. Gurney, Brant Co., Ont.

Why Use the Traction Ditcher?

H. C. Nixon, Brant Co., Ont.

The question that is bothering the progressive farmer to-day is not, Does it pay to under-drain, but rather, How can I get underdraining done at all? It is difficult to hire any kind of men to dig ditches, but more difficult still to find one well enough informed to dig a ditch to a grade, and conscientious enough to do it if he does know how.

But in the traction ditcher we find an answer to these problems. This machine digs the exact grade required, leaves a truer and more perfect bottom to the ditch than can be secured by hand work, and does the work quickly, doing away with all the tediousness and much of the unpleasantness of ditching.

GASOLINE OR STEAM POWER, WHICH?

Traction ditchers are of two kinds—steam power and gasoline power. The gasoline is much the more popular of the two powers. It is cleaner, quicker to start, and when stopped the gasoline can be turned off and no fuel is lost. Steam, on the other hand, must often be kept up for half a day in case of a small break, so that everything will be in readiness for a start as soon as the break is repaired. Also, the steam engine requires a fireman, who is not needed with the gasoline ditcher. The power varies all the way from the little five horse up to the big machines for sewer ditching, digging a maximum depth of 12 to 14 feet. Probably the best size for farm underdraining is a 15 horse power. A machine of this power will dig a little over six feet deep.

As shown by the accompanying cut, the digging work is done by a large power wheel from the engine. This wheel has buckets with cutting flanges. The earth is torn loose by the flanges, carried up in the buckets, and falls on the carrier table, which dumps it on the left side of the ditch. Instead of round wheels like a threshing engine, the ditcher has long travelling apron wheels, so that the machine does not drop into small irregularities of the ground. To dig to grade, the grade stakes are set ahead of the machine with the cross heads at the required grade, and the operator keeps the sight bar on the machine in line with these cross heads, which gives a uniform grade to the ditch bottom whether he is going over eradic knolls or level ground.

No ditching machines of this traction type are made in Canada. Still we have to pay a high duty on them, which makes them very expensive. A number of farmers whose land needs underdraining can cooperate in the purchase of a machine, but more often one man buys it and does work for the farmers, charging by the rod.

COST OF MACHINERY

DITCHING

The price per rod varies from 45 cents upward, according to the depth, nature of soil, etc., but chiefly, of course, depends on the competition there is in ditching. Mr. Thos. Nihan, Jas. Titterton and others in the neighborhood of St. Catharines are having parts of their farms underdrained this summer at four and a half cents a foot, or 74 cents a rod. This is the highest price of which I have

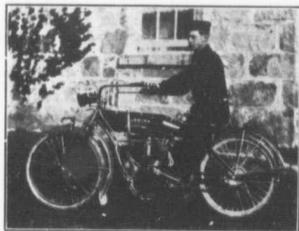
(Continued on page 17)

Young Farmer Endorses Motor Cycle

W. Duffield, Wellington Co., Ont.

I live five miles from the city of Guelph. Recently I have clipped about three miles off that distance by buying a motor cycle.

My cycle is a five horse-power, and cost me



The Motor Cycle has Practical and Social Use

Mr. Will Duffield, Wellington Co., Ont., estimates that his motor cycle has brought Guelph, five miles distant, three miles nearer his farm. He believes that every young farmer can find good use for a motor cycle.

—Photo by an editor of Farm and Dairy.

\$400. A four horse-power single cylinder, however, would have been satisfactory and would have cost only \$265. I find the motor cycle a very cheap means of travel. A gallon of gasoline costing 16 cents will carry me 90 miles. I have a 1,000 candle power acetylene lamp, and as I can sight a rig half a mile distant, travelling by night is as safe as travelling by day. The tires of my cycle have been on two years, and they look as good as ever. I estimate that my machine will last five or 10 years according to the care it gets; as long as a horse.

The uses to which the machine may be put are numerous. For instance, I went to Rockwood four and a half miles distant, and paid my telephone account a few nights ago, and was back home in less than half an hour. I can go to Guelph in 7 minutes. In the rush of seeding last spring our seeder was in need of repairs. I got them in 20 minutes, and there was a very short delay. My cycle will carry 150 pounds of luggage, and can be made very convenient in marketing.

To look at a motor cycle coming down the road one would consider it very rough riding, but I find that it is not as bad as it looks. In fact, the machine rides comfortably. One can learn to run the machine in just a few minutes. I do not have to walk up hill either. My machine will climb a steep hill at 15 mile an hour gait.

There is only one consideration that would induce me to part with my motor cycle—I might trade it for an automobile. When one gets used to doing things up quick with a motor cycle, a horse is altogether too slow.

New Machines vs. Repairs

L. C. Smith, Peel Co., Ont.

I was recently talking with a farmer who has been using the same mower for 17 years. He was proud of his economy. But he didn't say anything about the bill for repairs. This man's farm is right near my own and I know something of what the repairs have cost him on that old mower. It is not an uncommon thing in the rush of haying to see him stop his mowing machine in the middle of the field (a necessity) and start off to town for the repairs required before he could start his old machine again. I have seen him lose half a day in this manner. When we add to this the time lost by his horses and his men, getting repairs has cost him more than the repairs proper. I fully believe that the time and money spent for repairs on that old mower would have bought a new one six or eight years ago.

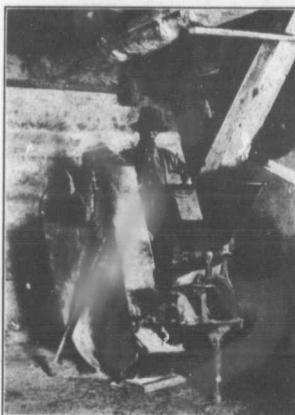
This man's economy is losing him money.

Labor is too expensive now-a-days to monkey with repaired implements that are everlastingly getting out of order. When we send the hired man to the field, he must be going steadily if he is to make wages for himself and something for us too. He will not be going steadily if he has an old made over machine that is frequently out of order.

PROMPT WORK—BIGGER CROPS

One secret of getting good crops lies in performing the right operation at the right time. For instance, corn should be cultivated after every rain at least if we would conserve a maximum amount of moisture. Alfalfa and clover must be cut at just a certain stage of their growth to give us the best results. In the spring a few days difference in getting in the grain crops will make quite a few bushels difference in the total yield. To get this work done promptly we must have implements that are always ready, that is, new implements.

But the biggest loss that we sustain in holding to old machinery so long, is in working with out-of-date implements. I will give an instance from



One Use for the Gasoline Engine

Mr. Isaac Holland, Oxford Co., Ont., whose farm secured a high standing in the Farms Competition conducted by Farm and Dairy last year, makes gasoline power do a large amount of work for him both inside and out. In our illustration is Mr. Holland's grain grinder that is run by a gasoline engine.

—Photo by an editor of Farm and Dairy.

my own experience to show how great that loss may be. We have, or rather had, a single row riding corn cultivator that a few years ago we thought was pretty nearly the height of perfection in the line of corn cultivators; it cultivated on both sides of the row. It certainly did good work.

Three years ago we had an opportunity of buying a modern cultivator, cultivating two rows complete at each round. The old cultivator was doing such good work that we still continued to cultivate our 10 acres of corn with it. Last spring, however, we did buy the two row machine. Here is the way we figure our loss from the old one:

Our 20 days' cultivating in the season would have been reduced to 10. Ten days saved is as good as \$30 to me in the labor of the men and team. That is we could have more than paid for the new machine in the savings of two years. We are not talking theory. We have used the machine one year, and know what it will do. The next time some new and improved farm implement is offered to us we will carefully calculate the cost, the saving, and then get it. No more delaying for us. It costs too much.

Highly Pleased with Milking Machine

R. E. Gunn, Ontario Co., Ont.

A consideration of farm power would not be complete without a reference to the labor-saving device, the milking machine; or, termed more properly, the mechanical milker. If a saving of physical endeavor is an excuse for mechanical invention, then certainly has the mechanical milker a place among mechanical inventions. All things considered the machine that has removed the most worry and the most drudgery on our farm is certainly the milking machine.

One of the hardest things to get, when hiring men to work on the farm, is a conscientious milker. Even on our farm, where the milking is confined to a certain group of men and they have no team work or other farm work to do that interferes with the milking, we find it next to impossible to secure men that will treat the cows as they should be treated. This then being the case we have the "average man" thing to consider.

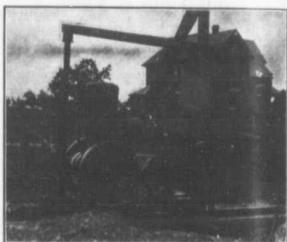
BETTER THAN HANDMILKING

Our experience proves that the milking machine used according to the manufacturer's instructions will give better results than the average man, especially when used with the average herd. High yielding cows unless started as heifers with the machine sometimes are so nervous that they will never take kindly to the mechanical milkers.

When Dunrobin Stock Farm changed from a general stock farm to a specialized dairy farm our greatest drawback was the labor question. To meet this the mechanical milkers were introduced a year and a half ago. If the farm had to fall back upon hand milkers entirely the present method of farming would most assuredly be changed and the dairy dispensed with.

From the experience gained from a close watch on respective costs, the margin of profit left after wages are paid to the average milker who thinks 10 or 12 cows are enough to handle is so small as to be hardly discernible. It is in the saving in the wage bill that the excuse for the mechanical milker lies and even though the cow's average yield is a little lower through their use, the ultimate saving from their use will more than pay for their installation inside two years in a large dairy.

We keep records of the production of the individual cows in our herd of over 100 (that is as easy with the machine milker as when milked by hand), and we have not noticed any decrease



Let the Gasoline Pump be for You

In this illustration Mr. Isaac Holland's gasoline power may be seen pumping in a new well. We waste energy and contract backaches from a pump handle when a gasoline engine will do it so much easier.

—Photo by an editor of Farm and Dairy.

in the average yield. Nor have we noticed any other detrimental effects.

Raising light horses of the best quality is almost a profession. We farmers, however, can almost make a success with draft horses.—C. W. Gurney, Brant Co., Ont.

Hay Making

W. F. Bell

Hay making has by the use of modern machinery become one of the most



Two Operations

A combined tedder and mow is used on the farm of Mr. W. F. Bell in District No. 1, Ontario. It makes hay-making one of the most

now accomplished if done by fewer men.

The scheme that is to cut as much hay in one day. The mow is turned over by the side delivery rake, and the hay is then tedded and stacked. The teeth act as a side delivery rake, and the hay is then stacked. The hay is then stacked in a neat row, and the stack is then cut by the side delivery rake. The hay is then stacked in a neat row, and the stack is then cut by the side delivery rake.

THE MOWER

And now for the hay is nicely cured operation. We can do it in a short time. It is as quick as it comes. We use two horses, a steel track. To let a minimum amount of the bottom to throw the hay by hand from the operation. We can do it in a short time. It is as quick as it comes.

We cannot lay in hay making, as we try to cut so neatly weather the modern hay maker, tedder and loader can get a great deal of hay in a short time.

Increased Efficiency

J. H. Grisdale, B.S.

We really have

We can get over

we pay enough

month, maybe he

we can not get a

for a better quality

population that go

We find that the

enough for the

we know that we

Hay Making Made Easy

W. F. Bell, Carleton Co., Ont.

Hay making has lost all of its terrors for us. By the use of modern hay making machinery one of the most arduous tasks on our farm is



Two Operations are Performed by This One Implement

A combined tedder and side-delivery rake may be here seen in operation on the farm of W. F. Bell, Carleton County, Ontario, the first prize farmer in District No. 2 of the Prince Farms Competition conducted by Farm and Dairy in 1911. Mr. Bell in the adjoining article tells how he makes hay-making easy by the use of labor-saving implements such as this one.

—Photo by an Editor of Farm and Dairy.

now accomplished in less time, and the work is done by fewer men, than was formerly the case.

The scheme that we follow at Lakeside Farm is to cut as much hay at a time as can be gotten in one day. Of course, we use a wide cut mower. When the hay is sufficiently wilted on top we go over it with the tedder to loosen and turn it over. When fairly well cured we use the side delivery rake, which leaves the hay lying loose and open to the air. We perform both of these operations with one implement—the combined tedder and side delivery rake. Moving one way the teeth act as a tedder. Move a lever and we have a side delivery rake. This implement has given us the greatest satisfaction. Last season we had one of the heaviest crops of hay ever harvested in the Ottawa Valley, and this device handled it nicely.

THE HAY LOADER SAVES TIME

And now for the hay loader. As soon as the hay is nicely cured the loader is brought into operation. We can put on a load in an incredibly short time. In fact, the load goes on as quickly as it comes off at the barn, where we use two horses, a double harpoon fork, and a steel track. To level the hay in the mow with a minimum amount of labor, we use a pole from the bottom to throw bundles from side to side.

Readers will note that we never handle our hay by hand from first to last in the hay making operation. We are able to cure as good an article of food by this method as we did when we coiled all of the hay.

We cannot lay down any hard and fast rule in hay making, as we are ruled by the weather. We try to cut some hay every day. It is in catchy weather that one appreciates most highly modern hay making machinery, especially the tedder and loader, as with these implements we can get a great deal of hay ready in an afternoon even after a heavy rain the night previous.

Increased Efficiency of Hired Help

J. H. Cristate, B.S.A., Director, Dom. Exp. Farms, Ottawa

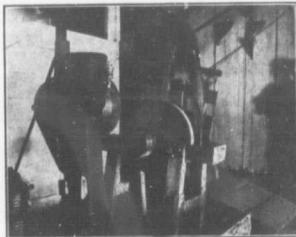
We really have difficulty in finding hired men. We can get over that. We can get hired men if we pay enough. If a man won't come for \$30 a month, maybe he will come for \$35 or \$30, and if we can not get a man for \$30, we can get them for a better figure. We have a certain floating population that goes where wages are highest.

We find that the laboring man does not do enough for the wage we have to give him. If we knew that we could pay a man \$50 a month,

and he could earn \$100, we would hire him at once. The reason we do not hire our men at better wages is the fact that we do not know how to employ them to advantage. We put a hired man behind a scrawny old team with a single furrow plow and put him into a stony field and he does about 50 cents worth of work during the day, whereas he should have been behind a good strong team with a two-furrow plow, and a good long furrow, and he would do \$10 worth a day.

It is not the hired man's fault that he does not earn his wages. It is the farmer's fault. Once we get our fields so large that we can use larger implements, then we will be able to make the hired man earn his money. And I do not know a hired man that is not better pleased at the end of the day if he finds he has plowed three acres than if he comes home and says he has only plowed one acre. He is just as keen to do the work as we are, provided he has the tools and advantages that will permit him to do it.

A Minnesota man uses a three-ton truck for



Simple, Convenient and Efficient

This illustration gives a tolerably good idea of how Mr. Anderson, Prince Edward Co., Ont., has arranged his tread mower to perform several operations—thus saving himself much hard labor. Notice that the cream separator is not run by hand on this farm.

hauling the produce of his 1,200 acre farm nearly 11 miles. He hauls butter, eggs, milk, cream, and feed to market and hauls out the supplies for the farm on his return trip. He declares his truck has taken the place of three teams and three men at the cost of keeping one man and one horse. He makes a run of 21 miles every day except Sunday, over sandy, hilly roads, hauling an average total load of 3½ tons each way, and does it on six gallons of 11-cent gasoline and ¾ of a gallon of 33-cent lubricating oil every day. He pays his driver \$50 per month, but he takes the place of three \$30 men who formerly did the teaming.—Breder's Gazette.

The benefits derived from the use of a manure spreader should be figured in the same way that we compute compound interest. The efficiency caused by using a spreader will increase the annual yield, thereby enabling the farmer to feed more stock which, in turn, will make more manure for the following season, and so on, until maximum efficiency is reached.—Prof. Paul Evans.

Why Not Grow Your Own Potatoes?

Seventy-five per cent. of the potatoes consumed in Toronto are grown outside of Ontario. Most of these imported potatoes come from the Maritime Provinces. Why is it that potatoes, a crop that yields higher returns in proportion to the fertility taken from the land than almost any other crop we can grow, are so neglected by Ontario farmers? Here and there we find a farmer who does go in for growing potatoes extensively and is making money at it. The most of our farmers are contented if they grow enough for their home use, and sometimes they do not do that.

The question of labor has been the most important factor militating against a larger interest in potato growing. Under the old method with which we are all acquainted—dropping potatoes by hand, digging them with a potato fork, and then the laborious operation of picking and bagging them—it is not to be wondered at that most of us preferred to make our money some easier way. This argument, however, does not now apply. Machinery in potato growing, as in all other lines of farming, is taking the place of hand labor. The potato planter is now giving perfect satisfaction on hundreds of farms in Ontario and the more easterly provinces. The furrow is made, the seed dropped and covered, all in one operation. It is just as easy as sowing grain with a seed drill. Even the seed may be cut by machinery.

When it comes to digging no progressive potato grower ever thinks of doing it by hand. The mechanical potato digger is much more economical. To such a degree of perfection has this machine been brought that it not only digs the potatoes, but on some machines devices are arranged whereby the potatoes are collected and dropped at intervals in piles of convenient size.

Several Ontario potato growers have told us that their net profit on potatoes sometimes runs up to \$100 an acre or even more. The labor difficulty being now overcome by machinery, there is no reason why Ontario farmers should not grow enough of this profitable crop to supply their own markets and have some for export as well.—"Ontario."

Cracks in the soil indicate that moisture has evaporated. A good illustration of this is a flower pot or can that has been set away with moist soil in it. When the soil dries it shrinks away



Potato Planting is now an Easier Job than it Used to be

Dropping potato seed by hand is a slow, tiresome operation. Mr. John Weldrick, York County, Ont., has found an easier way. In our illustration he may be seen demonstrating to his friends how easily the operation may be performed with an Annapolis Potato Planter.

from the sides of the pot, leaving a space of perhaps a fourth of an inch. This is due to the soil shrinking as it dries. So when cracks are seen in the soil a big loss of moisture is going on, and that soil should be stirred. The surface should have been loosened up before the cracks formed.—Prof. W. C. Palmer.

SOME INNER SECRETS OF THE SUCCESS OF AN OLD RELIABLE MANUFACTURING BUSINESS

Points of Interest Gathered by an Editor of Farm and Dairy Recently as he Inspected the big Manufacturing Plant of Gould, Shapley & Muir Co., Ltd., Brantford, Ont. The Reason Explained as to the Popularity of Their Several Lines of Manufactures.

ALTHOUGH there are upwards of 2,200 Armenians and other foreign laborers in the city of Brantford, Ont., not one of these foreigners is employed throughout the large manufacturing establishment of the Gould, Shapley & Muir Co. Recently one of the editors of Farm and Dairy, while in Brantford, took occasion to inspect this large manufacturing plant, and during the course of making the inspection he remarked upon the superior class of workmen employed. We were not a little sur-



Outfit Oak Park Stock Farm, Paris, Ont.

"Brantford" windmills are made for Power and Pumping; 8 ft. to 30 ft. They are in use the world over. All backed by the Gould, Shapley & Muir Co. guarantee.

prised to get in answer the fact as above given.

In these facts Farm and Dairy readers may get a clue, as we did, on which hangs some part of the reputation, which this company has won for their various lines of manufacture. The Gould, Shapley, Muir factory is located right in the uptown district. Because of their favorable location they naturally get first choice of the labor offering since the men do not require to carry their dinner pails. This fact, backed by a long term of years during which steady employment has been given, makes for contented workmen and secures the best of labor, which is reflected in the quality and durability of all Gould, Shapley, Muir manufactures.

A MOST REMARKABLE RECORD

This factory is the steadiest running concern in Brantford. It has a most remarkable record in that it has not been shut down since 14 years ago, at which time the plant laid off their men for two weeks while taking stock.

It is 20 years since this company

took the business of the E. L. Refrigerator and Co., which manufactured refrigerators, fanning mills and bee supplies. These lines have all been dropped. The present company started the steel windmill industry in Canada. They have built it up to great proportions.

WHAT THEY MAKE

Among their lines of manufacture are:

Galvanized Steel Pumping Windmills fitted with their Patent Roller and Ball Bearings as follows: "Imperial" 8, 10, 12, 14, 16 and 20 ft. "Ideal" 8, 10, 12 ft. "New Ideal" 8, 10, 12 ft.

Galvanized Steel Towers, girted every five feet and double braced, three and four posts, for Windmills, for Windmill and Tank in same tower, or Tanks only of any capacity, for Bells, Hose, Electric Lights, Etc. Also Heavy Towers for Power Mills.

Galvanized "New Ideal" Power Windmills, fitted with Patent Roller and Ball Bearings in 12, 13, 14, 15 and 16 ft. sizes.

Grain Grinders. "Maple Leaf" with 8, 10, 11, 13 and 15 in. burrs, and Ideal Duplex Post Grinder.

Gas and Gasoline Engines, 1-2 to 50 h.p. Stationary, Mounted and Traction.

Power Spraying Outfits. Concrete Mixers, Two Sizes. Will compete with any other mixer made.

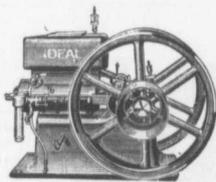
Iron Pumps. Lift and Force for Hand and Wind-mill use for all purposes, also lift and Force House Cistern Pumps.

Wood Tanks. All styles and sizes. Water Boxes. Brass Cylinders. All sizes, inside and outside fittings.

Water Pipe and Pipe Fittings. Plain or Galvanized. Etc., Etc.

MORE INFORMATION FOR YOU
Some of these lines are shown in illustration with comments herewith in connection with this article. Attractive illustrated catalogues covering any of these lines of manufacture in which you may be interested will be mailed to you free on request to the head office of this company at Brantford, Ont.

One point worth bearing in mind is that when you buy from Gould, Shapley & Muir Co. your goods are backed and guaranteed by this old Canadian company. The first gas engines they manufactured 14 years ago are still working in Brantford and are giving the best of satisfaction, and are claimed to be by those who own them as good to-day as when first built.



A Gasoline Engine That Endures

The first gas and gasoline engines made by the Gould, Shapley & Muir Co. 15 years ago are still in use. Made in sizes 1/2 to 50 H.P. Stationary, on Bids or Trucks, and Traction. Noted for their simplicity in operation, reliability and economy in the consumption of fuel. Built by the oldest and largest manufacturers of Gas and Gasoline Engines in Canada. When you purchase a Brantford engine you get something that has been making good for years, and are taking no chances.

Many other makes of engines during this period of time have gone to the scrap heap.

BIG BUSINESS IN GAS ENGINES

This company is building up a wonderful business in gas engines. They have the largest gas engine plant in



A Big Manufacturing Plant with a Most Remarkable and Envious Record

This factory has run steadily 14 years without a stop other than for legal holidays. Its several lines of manufacture have world-wide distribution. Some interesting facts about this manufacturing plant of the Gould, Shapley & Muir Co., Ltd., are given in the article adjoining. Full information about any or all of their special lines of manufacture you may have on request to their head office at Brantford, Ont.

Canada and they anticipate ere long that their plant will have to be extended to at least four times its present size. Remember these things when you go to buy a gas engine.

In connection with their windmill manufacturing it should be generally known that these people have the largest galvanizing plant in Canada; it enables them to galvanize their mills and towers after they are completed, thus ensuring perfect galvanizing, joints and all, and no possibility of rusting.—C. C. N.



"Ideal" Automatic Batch Concrete Mixer

Automatically measures the gravel, sand, stone, cement and water for each batch. Made in two sizes by the Gould, Shapley & Muir Co., Ltd., Brantford, Ont.

Engines Prolong Farmer's Life

"I believe that the gasoline engine has done more and will do more to prolong the life of the farmer than any device that ever has been placed on the market," declared a man interested in rural progress, as he was watching the energetic efforts of an engine that was operating some up-to-date machinery on a Canadian farm.

"The average farmer of to-day, if he is past 60, is pretty apt to be broken down and looks to be 10 years older than he really is. Why is it, do you ask? It is simply because this man has broken himself down physically, through hard manual labor that is in a large measure now being done by the gasoline engine. These machines are being manufactured so cheaply and substantially that almost any farmer may own one. If he is not able to bear all the expense for this labor-saving device he may unite with some neighbor and own one jointly."

A Farmer is Pleased with Auto

J. W. Jones, Northumberland Co., Ont.

I find my automobile very useful, as well as a source of much pleasure. I live three miles from town, and find it very handy for getting my require-

ments quickly, when necessary. I can be to town and back with my auto almost as quickly as I would be getting a horse and rig ready to go.

I consider my auto a good investment. I would certainly not want to be without a car. There is no reason, now that automobiles are getting down to a reasonable price, why farmers should not have them as well as other business men. In fact, there is more reason why farmers should have them as the auto promotes sociability in a way that was not possible for farmers in the older days. As an instance,—I find it easy to visit my daughter, 25 miles away, in an hour and a quarter, where formerly it took me about three hours to drive. Many farmers in this locality are getting automobiles, and I look to see almost every well-to-do farmer have one.

Of course, the stalls must be kept clean when the calves are stabled, or we would be providing a fine breeding place for the flies. With clean stables kept quite dark and good feeding, we find that the calves make much more satisfactory progress than they would in the exposed pasture on the same feed.

Some Cultivati

Onward Walker, The cultivator is up-to-date implement to get a letter seed possible without it. Nothed cultivator eradicate thistles providing; the seed can obtain a very by properly w

We prefer the consider the furro ing in it the furro ablutely necessa by turning in two low and then er with the cultivator



No. 1. Sta

In the Western fold, the device sho the stack on a brotation No. 2.

can be gotten. O get apply to the fil sed furrow; that the disc. Land al on spring sod plo with either of the

Is the manure save? It certain er it a luxury. land we have ma ber, 17 acres of t set with the slei such a good mont



No. 2. Elevating

The sweep rake tion No. 1 leaves l of the boat, and a at one operation to This method of sta ent where great q be handled in a sh eam of labor.

that we took adv prefer the winter not too deep.

A labor-saving man can build his "It. This implem pieces, three by y feet long, set in wide end of the feet four inches plank running spiked to a vane

Some Cultivating Implements

Open'd Walker, Perth Co., Ont.

The cultivator is one of our most up-to-date implements. It enables us to get a better seed bed than would be possible without it. By using a wide-toothed cultivator we can thoroughly eradicate thistles and other weeds, provided the teeth are sharp. We can obtain a very nice seed bed on soil by properly working this implement.

We prefer the disc harrow for soil; we consider it best suited for the filling in of the furrows. A disc is not absolutely necessary, however, as by turning in two furrows with the plow and then crossing the furrows with the cultivator a fairly level field

by ten-inch plank. This vane is also fastened to the front. A chain goes down through and under to the two-inch cross plank, which a bolt goes through to hold the chain solid. A spring seat is attached. The driver's weight holds the puller solid between the rows, the driver getting off the seat at each end.

Of course, we use the hoe for topping. This operation requires care in order that too much of the root will not be cut away or a few leaves be left on. We can top with a hoe and have no more waste than when a knife is used. This root puller throws two rows into one for drawing. By taking the rows alternately you can always load from both sides of the wagon.

When the Hay is Heavy

YOU NEED A MASSEY-HARRIS MOWER

Because it has ample power to cut the heaviest hay that grows.

When the Hay is Light

YOU NEED A MASSEY-HARRIS MOWER

Because it will cut close and save all the hay.

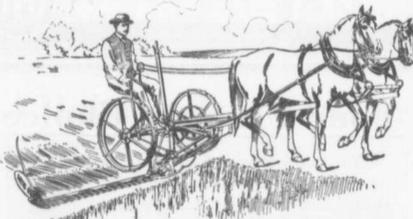
LARGE, broad faced Drive Wheels with deep, traction lugs, give ample power, which is transmitted to the knife by means of powerful Gears, enclosed to keep out dirt and trash.

Cut Bar is free to follow uneven ground and has great range of tilt—it can be set to fairly shave the ground or to cut a long stubble, as desired. Lift Spring may be adjusted to carry as much or as little of the weight of cutter bar as conditions demand. Raised Ledger Plates give extra long cutting edges and the edges are serrated. No "flying start" required—knife begins to cut the instant the horses start. The easily operated Foot Lift enables the driver to quickly raise the Bar for passing obstructions.

Massey-Harris Co., Limited

Head Offices : Toronto, Canada

Branches at: Montreal, Moncton, Winnipeg, Regina, Saskatoon, Calgary, Edmonton



No. 1. Stacking Made Easy. Eriking the Hay to the Hoist

In the Western States, where immense quantities of hay are stacked in the field, the device shown in the illustration is commonly used. The hay is brought to the stack on a broad sweep rake and elevated by horse power as seen in illustration No. 2.

can be gotten. Of course, that does not apply to the filling in of the green sod furrow; that must be filled with the disc. Land should be well rolled on spring sod plowing for working with either of these implements.

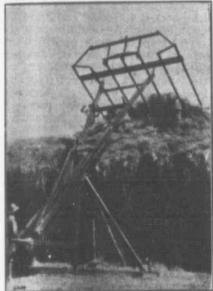
Is the manure spreader a labor saver? It certainly is. But I consider it a luxury. Of the 26 acres of land we have manured since December, 17 acres of that has been taken out with the sleigh. December was such a good month for the spreader

To Encourage Sheep Husbandry

R. H. Harding, Middlesex Co., Ont.
I will certainly let Farm and Dairy readers, and especially L. A. Murchison, Wellington Co., Ont., who touches some important phases of the sheep industry in Farm and Dairy, May 23, know what is being done to try to put the sheep industry on a better footing. At the last annual meeting of the Dominion Sheep Breeders' Association, the reports of W. A. Dryden and H. T. Ritchie, the Dominion Sheep and Wool Commissioners, was discussed, and a committee—composed of Lieutenant-Colonel McCrae, Guelph; Lieutenant-Colonel McEwen, Byron; and myself—was appointed to take the matter up with the Hon. Martin Burrell, Dominion Minister of Agriculture, with the view of putting some of the recommendations into what we thought might be practical form.

This Commission had a conference with the Minister, who expressed himself as in hearty accord with us, which he backed up with a grant of \$15,000 to be spent by this committee, subject to the approval of his Live Stock Department. It was further decided that it would not be possible to cover the whole Dominion this year, so the Maritime Provinces and British Columbia were chosen for the commencement of this work.

We plan to conduct an educational campaign. It is expected that before this letter reaches Farm and Dairy readers Colonel McCrae will be on his way to British Columbia to join Dr. Toimie in touring that province and finally locating places where sales of sheep will be held later, while Colonel McEwen, accompanied by C. M. McEwen of the Dominion Department, will be on their way down to the sea on a similar mission. To myself is allotted the task of purchasing 250 registered rams, and probably 1,000 grade ewes, to be sold in the places selected by the committee in the provinces above mentioned during September and October next. With the healthy tone of the lamb and mutton market, and the increasing need for the greatest of wool scavengers, these sales should prove of great value to the farmers of those outlying provinces.



No. 2. Elevating the Hay to the Stack

The sweep rake to be seen in illustration No. 1 leaves its load on the prongs of the hoist, and all the hay is elevated at one operation to the top of the stack. This method of stacking is very convenient where great quantities of hay must be handled in a short time with a minimum of labor.

that we took advantage of it. But I prefer the winter drawing if snow is not too deep.

HONEY MADE ROOF PULLER
A labor-saving implement that any man can build himself is a root puller. This implement we made of two pieces, three by five inches and four feet long, set in crutch shape. The wide end of the "V" should be three feet four inches wide. A two-inch plank running across the "V" is spiked to a vane 11 feet long of two

**The Oil You Need!
For Your Separator**



**STANDARD
Hand Separator Oil**

Never Gums, Never Rusts, Never Corrodes

Standard Hand Separator Oil feeds freely into the closest bearings and gives the best possible lubrication.

It makes your separator last longer and do better work as long as it lasts.

One gallon can all dealers, or write to

The Imperial Oil Co. Limited



POULTRY YARD

Importance of Grit for Poultry

By O. W. Dynes

Grit takes the place of teeth in fowls; a liberal supply should be available to them at all times. The grit may be in the form of crushed rock, oyster shell, coarse sand, broken glass, etc.

Fowls having free summer range will usually pick up sufficient for their needs on any ordinary soil. Soils that are deficient in small pebbles and coarse sand particles, however, may not furnish enough of the needed materials for the flock.

results with packed eggs they must be from birds having no males running with them. Also it is very important, especially with the water-glass solution, to have the eggs stored in a cool cellar. Earthenware jars make the best receptacles for packing the eggs, although good, clean butter kegs or lard pails give good satisfaction.

Poultry Pointers

When the little chicks stand sleeping with wings hanging, look for head lice. Pure lard rubbed on the head and neck will get them.

Destroy the rats. They will eat your chicks.

To kill rats, pound up glass and mix with corn meal. Rats are bad things around the chick quarters.



The Chicken Yard Needs Cultivation as well as the Garden

Chickens grow faster and are healthier on cultivated soil than on soil that is not stirred frequently. A convenient implement for cultivating the chicken run is the hand wheel plow.

Lime is essential for forming the egg shell. This is best furnished by giving the birds constant access to ground oyster shell. The health of the growing flock is dependent on a plentiful supply of good grit. Both the oyster shell and crushed rock are commercial products and may be easily procured on the market.

Preserving Eggs

Prof. C. C. Brown, University of Minnesota

We have tried a number of different methods of packing eggs and so far have found nothing which gives such good results as waterglass. The following different methods were tried: 1. A mixture of one part of water-glass to 20 parts of water gave good results where the eggs were not kept in the solution longer than six months; after that they were somewhat lacking in flavor. 2. A mixture of one part of water-glass to 15 parts water, gave excellent results, some of which we kept until they were 18 months old.

3. We have had very good results packing eggs in dry salt. Great care should be taken to cover them well. These were all good after being packed for seven months, though they had separated considerably.

4. Two pounds of fresh lime were slaked in a pail and a pint of salt added. After mixing, the contents of the pail were put in a tub containing four gallons of water. This was well stirred and left to settle. Then it was stirred a second time and left to settle. After that only the clear liquid was poured over the eggs that were in a tub. The eggs in this solution kept well but were not so good in flavor and in cooking quality as solution No. 2.

We find that to get the very best



Satisfied? Well Rather!

"Somehow I never thought I would like a safety razor, but I got a Gem Junior in February as offered through Farm and Dairy in return for getting two new subscribers to Farm and Dairy. I have used the razor three times a week now for over three months, and I tell you it's fine."—T. R. G., Middlesex Co., Ont.

A Gift for you

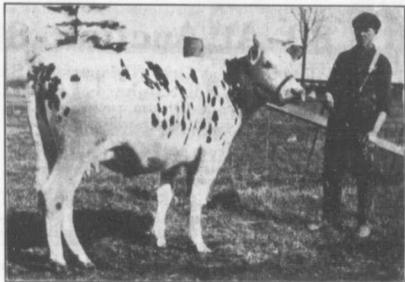
- 1 You will find it a pleasure to use this safety razor, and you will never dread shaving any more when you have this razor.
- 2 It is a positive delight to shave with this Gem Junior Safety Razor. The whiskers come off without a pull, and in much less time than ever required when the old-time fashioned open razor is used.
- 3 It certainly is great value and should last anyone for years.
- 4 This safety razor is as shown in the 1st illustration. It is highly nickel plated and polished. It has seven genuine damaskened Gem Junior blades. It has a combination stropping and shaving handle, so that you can keep the blades sharp and use for shaving for many months. You can sharpen the blades just like an ordinary razor.
- 5 One of our editors was showing one of these razors to a friend the other day and he remarked: "Well I declare, I do not see how you can afford to give such a valuable premium in return for only two new subscriptions to Farm and Dairy."
- 6 We have one of these Safety Razor Outfits for you. It is just as described and as shown. We will send it to you postage paid and absolutely free in return for getting us only two new subscriptions to Farm and Dairy, each at only \$1.00 a year.
- 7 Will you get us two new subscribers to Farm and Dairy and claim this premium razor? It is certain to please and delight you.

8 This premium is proving very popular, and each Farm and Dairy reader who gets one of these razors will have something he will prize highly, use for years, and thank Farm and Dairy every time he uses it for placing his time saver, comfort and convenience within his reach at no cost other than a little thought and time in getting two new subscriptions to



FARM AND DAIRY, Peterboro, Ont.

A Holstein Top Notcher



Queen Korndyke Pleione

(Photo by an Editor of Farm and Dairy)

This heifer is one of the highest-priced cattle I ever had anything to do with. I believe she will pay me well. She is sired by PONTIAC KORNDYKE HENGEBVELD, a bull having 12 A. B. O. daughters.

She is in calf to PONTIAC KORNDYKE, one of the greatest bulls of the breed. I am offered \$750 for her calf on it being a heifer.

The sire of this heifer sold for \$1,200. Other than my recent importation of these most desirable Holsteins, of which this heifer is but one, I have in my stables 100 head of choice Holsteins. Most of these are tested stock with good records, or are from good record stock.

Some young stuff. Calves, Bulls and heifers. I am offering for sale. They are priced very reasonable, and are the kind that will make you money.

Write me of your wants in Holstein cattle or come to my barns and take your choice.

THE MANOR FARM

GORDON S. GOODERHAM - Bedford Park, Ontario

Experience With Farm Power

(Continued from page 5)

For carrying feed all the feed hoppers I have seen are too small to be practicable. We use the litter carriers to convey the milk cans from stable to dairy, and find that a saving. Our milking machine we would not be without. This machine is dealt with fully elsewhere in this issue. We have found that saving devices can be best thought out to suit each individual farm by the owner if he is at all mechanical, and as every farm has a kit of tools, or should have, it is not hard in the winter months to make many things that save innumerable steps.



Buy a Deering Binder and Avoid Waste

THE Deering binder has proved itself master of the grain field. The Deering knottor, for three decades the mechanical wonder of the age, still twists the twine into that ingenious knot which the human hand has never been able to equal. Deering harvesting and haying machines have established a world-wide standard. The sun never sets on the Deering binder, and every day of the year and every hour of the day it click can be heard in some harvest field.

Deering quality has a name the world over; it never varies, but the machine itself is changed to suit the demands of different countries. The Deering New Ideal binder is made especially to do the work of Ontario and Eastern Canadian farmers. It is manufactured at Hamilton, Ontario, within easy reach of all. Using a Deering binder means easy pulling for your horses, quick, light work on hilly fields, and good work even on rough ground. Your harvest troubles cease when you use a Deering binder. See the Deering local agent, and let him show you the good points of the harvesting and haying tools and binder twine. Get catalogues from him, or write the nearest branch house.

Eastern Canadian Branches
International Harvester Company of America

At Hamilton, Ont. London, Ont. Montreal, P. Q.
Ottawa, Ont. St. John, N. B. Quebec, P. Q.

I. H. C. Service Bureau

The purpose of this Bureau is to furnish, free of charge to all, the best information obtainable on better farming. If you have any further questions concerning soils, crops, land drainage, irrigation, fertilizer, etc., make your inquiries specific and send them to I. H. C. Service Bureau, Harvesting Building, Chicago, U. S. A.



Holsteins 80-At Auction-80

Will be sold at Great Dispersion Sale of pure bred Holstein herd at Hill Cliff Stock Farm, Lot. 1, Con. 1, Dereham, 4 miles east of Salford, on C. P. R., and 4 miles east of Burgessville, on G. T. R., on

Monday, June 10th, 1912

Sale to commence at 1 o'clock

These cattle are bred from the best of sires, such as Prince Albert De Kol, full brother of Lord Roberts De Kol, the sire of great producers; and Queen De Kol 2nd Teake, whose name indicates his splendid breeding.

The present herd header is Dutchland Sir Hengerveld Maplecroft, who is for sale. His sire has over 100 A. R. O. daughters and 30 proven sons. This bull was bred by Fred F. Fields, Brocton, Mass.

In this sale there are females ranging from 40 lbs. of milk a day for two-year-olds to 70 lbs. for aged cows. Among the cows is one 75% same blood as Helbon De Kol, 51.54 lbs. butter in 7 days. She is for sale, and several of her daughters from above great sires.

These cattle have been bred for persistency in heavy milk flow, and for symmetry of form.

Sale will be held rain or shine. All trains will be met, at above stations on day of sale. Lunch served to those from a distance.

Catalogues now ready. Write for yours to

W. A. TACKELL, Proprietor
Holbrook P. O., Ontario

This herd will positively be sold to the highest bidder
NO RESERVE WHATEVER.

AUCTIONEERS:

Col. R. E. Haeger, Algonquin, Ill. Wm. Pullin, Woodstock, Ont.
CLERK: W. H. Jones, Zenda

A Labor Saving Farm Water Power

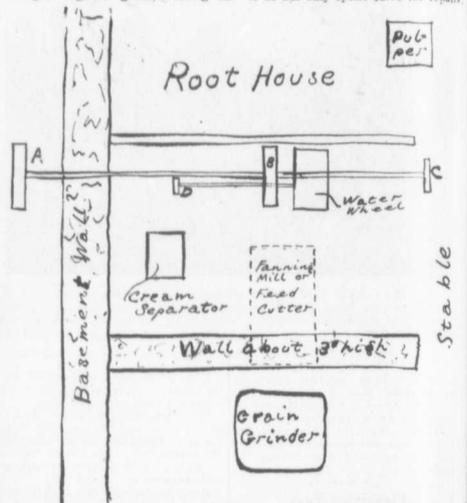
"What's the use of doing by hand what can be done so much easier by power?" said Adam Alexander of Halton Co., Ont., to an editor of Farm and Dairy, who visited his farm this spring. Mr. Alexander has been putting his precept into practice. Fourteen years ago he harnessed a good part of his stationary machinery to water wheels and has been watching it work for him ever since.

Farm boys whose backs have often ached turning the root pulper would take real pleasure in seeing the way Mr. Alexander runs his pulper. He simply attaches a belt to the pulper, turns on the water power, and then watches the roots being pulped just as fast as one man can throw them into the hopper. Other operations performed by this small water wheel are grinding the grain, cutting the

The power shaft is so arranged that only one piece of machinery need be run at one time. For instance, if grinding grain from pulley (A), the shaft is disconnected from (A) and (C). The grain grinder is directly beneath the granary, and the grain can be run directly from the bin to the hopper of the grinder.

NATURE PROVIDES THE POWER

Mr. Alexander is peculiarly favored in that he has such cheap power. Just near his home is a mountain on which there are never-failing springs. From these springs Mr. Alexander has laid a four-inch pipe that develops the power at the wheel, and also supplies water to the house and to the stock. There are 972 feet of piping. The drop is 120 feet. The initial cost of installation, Mr. Alexander informed us, was \$200 for piping and \$85 for the wheel. In all the 14 years that he has used it he has only spent \$2.75 for repairs.



A Simple, Convenient and Space Saving Arrangement of Machinery

The diagram herewith shows how Mr. Alexander has shafed so that many farm wheel without taking up too much space. Under's plant read the article adjoining.

hay and straw, fanning the grain, running the circular saw, and turning the cream separator. The accompanying diagram will give an idea of how Mr. Alexander has arranged all of these machines in order that they may be run by the one power.

A CONVENIENT ARRANGEMENT
The wheel is located in the basement of the barn. A shaft runs along the ceiling above, on which are the pulleys that run the various machines. From the pulley (C) a belt runs to the root pulper. From (B) another belt runs through the floor to the fanning mill and the straw cutter. The small auxiliary shaft (D) from the wheel runs the cream separator. The main shaft extends out through the wall of the barn, and a pulley there (A) is connected with the circular saw. Mr. Alexander's water wheel will generate six to eight horse power, and will saw eight cords of soft wood and six cords of hard maple in a day. To demonstrate to our editor just what efficient work his wheel would do, Mr. Alexander started his saw and cut several pieces of hard maple eight or 10 inches in diameter at a good speed. Anyone who has pushed a bucksaw will appreciate just what a labor-saver is this circular saw.

this for a new valve that has not yet been put in.

Water power such as Mr. Alexander has cannot be secured on every farm, but as Mr. Alexander pointed out to our editor, a gasoline engine can be established in the basement, and with a similar arrangement of shafting and machinery the same work can be done by power in this labor-saving manner on every farm in the country.

MORE BACK SAVERS

The grindstone is turned from the small pulley that runs the root pulper. At harvest time carries such as are found on ensilage and feed cutters are arranged for elevating the sheaves of grain right to the peak of the barn if necessary, and the elevators are run from a belt at pulley (C) running out through the floor.

"A boy on the load could lift a man in the mow with this arrangement," said Mr. Alexander. "The carrier will handle 40 sheaves a minute, which is more than the fastest men could feed."

"If we farmers would make machinery do more of our work, we would have less difficulty in keeping the barn on the farm," was Mr. Alexander's parting comment.

It Applies in One of the most large expenditure machinery. The new equipment of the laboriously obtained covered-rope or horse-shoe, disc spreader, for just after near his



Pansy

Record made 1 1/2 day's fat 3.19 lbs.; year as 3-year-old; set year? Owned each by P. D. Edwards for \$300.

stint his family deny himself do. And even where his tion where such as necessary, the cost repairs remains "counts" heavily net returns from One would imagine equipment that gives a degree of



Jewel Aaltje

Four years old, 24 days, averaging 3.72 Peck Dishes, a larger and 586.67 lbs. milk and Hillview Farms

to the labor and stored on its procut this often happens more and more the ness farmers," the let or so numero tonishment.

For instance, on trip, a member of vestity Farm, as a took note of the v be seen from his had been left in th

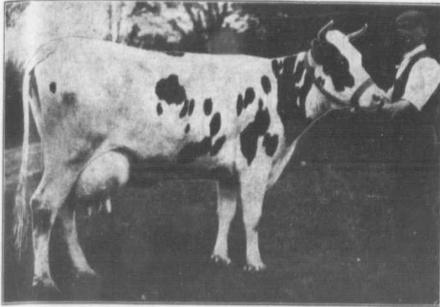
It Applies in Canada, Too

One of the most important items in the cost of "running the farm" is the large expenditure for tools and machinery. The necessary and desirable equipment of these is often slowly and laboriously obtained. To acquire a sorted reaper or mower, wagon or horse-rake, disc cultivator or manure spreader, for instance, the farmer will often bear the old suit another year,

used, exposed to the weather during the fall and winter months, along the road between St Paul and Hinckley. The list was as follows:

Horse rakes	18
Mowers	4
Tedders	1
Road graders	2
Plows	1
Binders	3

This list includes only such ma-



Pansy Butterbank, 4 years, 26.16 lbs. Butter in 7 Days

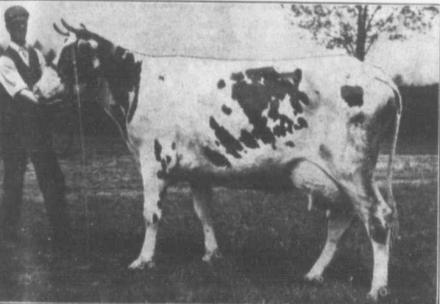
Record made 1/4 mos. after freshening; highest day's milking 95.8 lbs., highest day's fat 3.19 lbs.; 1,192.2 lbs. milk in 14 days. Made 21,762 lbs. butter record last year as 2-year-old; 14,146 lbs. the year before as a 2-year-old. What will she do next year? Owned by Centre and Hillier's Farms. It is the bull calf from this cow that P. D. Ede, Oxford Centre, offered in Farm and Dairy last week for \$300.

—Photo by an editor of Farm and Dairy.

stint his family expenditures, and deny himself desirable recreation. And even where he has gained a position where such sacrifices may not be necessary, the cost of machinery and repairs remains an item which "counts" heavily in cutting down the net returns from his land.

One would imagine, then, that the equipment thus acquired should be given a degree of care proportionate

to those seen from one side of the car. Others, similarly exposed, may have been concealed from view by farm buildings. Supposing only, however, that the number of exposed machines on the other side of the track was the same as on the side inspected, there were exposed to the weather, on a narrow strip of land about 75 miles long and say one mile wide, 58 expensive pieces of machin-



Jewel Aaltje Posch, a Daughter of Great Cow in Woodstock Sale

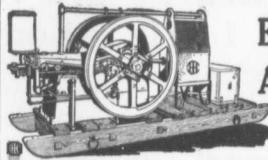
Four years old, 24.75 lbs. butter in 7 days; 47.08 lbs. butter, 1,042 lbs. milk in 14 days, averaging 3.72 per cent fat. The dam of this attractive 4-year-old, Aaltje Posch Dubess, a large cow of splendid type and great performance (19,519 lbs. butter and 586.67 lbs. milk in 7 days), is offered in Woodstock sale. Owned by Centre and Hillier Farms, P. D. Ede, Oxford Centre, Ont.

—Photo by an editor of Farm and Dairy.

to the labor and expenditure bestowed on its procurement. But, while this often happens, and is becoming more and more the rule with "business farmers," the instances of neglect are so numerous as to kindle astonishment.

For instance, on a recent northward trip, a member of the Faculty at University Farm, as a matter of curiosity, took note of the various machines, to be seen from his car window, which had been left in the fields where last

year. And unfortunately this area is not, in this respect, an exceptional one. Over practically the whole cultivated area of Minnesota a similar habit prevails. The resulting damage to the machinery can hardly be less than from 10 to 25 per cent. of its cost annually, which means a tax of several hundred thousand dollars upon the farmers of the State—a tax self-imposed, since it is everywhere avoidable by giving machinery proper shelter and care.—C. R. Barns.



**I H C
Engines Furnish
Ample Power at
Lowest Cost**

An engine that develops more than its rated horse power, with the lowest possible expense for fuel, needs only one other feature to make it the best engine a man can buy. That feature is durability. The engine which combines these three qualities, ample power, low fuel cost, and durability, is an

I H C Gasoline Engine

In an emergency, an I H C engine will develop from 15 to 30 per cent more power than it is sold for. Because of its scientifically correct mixer, it uses less gasoline to develop that power than is required by any engine not so equipped. It is durable because only the best material is used, put together with the precision of a high-priced watch. For work on farm or estate, in mill, shop, or factory, wherever reliable, dependable power is required, an I H C engine is the one best buy.

I H C engines are made in every style—horizontal and vertical, air and water-cooled, stationary, portable, and mounted on skids, to operate on gasoline, kerosene, distillate, or alcohol; sizes 1 to 50-horse power; kerosene-gasoline tractors, 12 to 45-horse power. Sawing, spraying, pumping, grinding outfits, etc.

The I H C local agent will show you the good points of the I H C engine. He will explain why an I H C engine is durable. He will show you how simple it is. He can give you good common-sense reasons for buying an I H C engine in preference to any other. Get catalogue from him, or write the nearest branch house.

CANADIAN BRANCH HOUSES

International Harvester Company of America
(Incorporated)

At Brandon, Calgary, Edmonton, Hamilton, Lethbridge, London, Montreal, North Battleford, Ottawa, Quebec, Regina, Saskatoon, St. John, Weyburn, Winnipeg, Yorkton.

IHC Service Bureau

The purpose of this Bureau is to furnish, free of charge, to all the best information obtainable on better farming. If you have any worthy questions concerning soils, crops, land drainage, irrigation, fertilizer, building your manure specific and, send them to I H C Service Bureau, Harvester Building, Chicago, U.S.A.



**CHOICE SINGLE COMB BROWN
LECHORN EGGS**

Famous Booker and Gurney Strains, \$1.50 per 15.
David A. Ashworth, Maple Grove, Ontario.



**YOUNG MEN WANTED TO LEARN
VETERINARY profession.** Catalogue free. Grand Rapids Veterinary College, Dev. 16, Grand Rapids, Mich.

Are you anxious to save Time and Money on the Work you are doing on your Farm at present and to get Larger Crops from your Farm or Orchard? If so, let us send you Free of Charge our Pamphlets on the use of

STUMPING POWDERS

— USED FOR —

- REMOVING STUMPS AND BOULDERS
- DIGGING WELLS AND DITCHES
- PLANTING AND CULTIVATING ORCHARDS
- BREAKING HARD PAN, SHALE or CLAY SUB-SOILS, Etc., Etc.

Figure yourself what Clearing your Farm is costing now or what you are losing in crops through not clearing

Write Us About Arranging Demonstrations

CANADIAN EXPLOSIVES, LIMITED
MONTREAL, P.Q.

Some Features We've Told You Little About

In our previous advertisements the big features of the Standard have been emphasized. You've heard a great deal about the Enclosed Dust-Proof Gearing—The Self-Oiling System—The Centre Balanced Bowl—The Liberal Spacing Between Disc Edges and Bowl for Holding Accumulation of Impurities—The High Crank Shaft—The Low Supply Can—of the

Standard

Cream separator. But there are other features that add greatly to the convenience and satisfaction of Standard owners.

For instance, there's the Wide Open Bowl so easy to get at and wash. No tubes to clog up either. Then there are the Discs which are well washed together on a disc holder in about one minute. They are numbered so they cannot be put together wrong.

Then, too, the Standard Bowl doesn't leak. That's because the bowl shell fits tight without screwing down on top of a rubber ring, causing wear on the rubber and allowing the milk to leak through when the bowl is revolving.

Another good feature is the Interchangeable Clutch, which permits the Standard to run down without wear on the working parts. Note: When you stop the crank, the gears all stop and the bowl runs down of its own accord and without wear. The Interchangeable Clutch also enables you to "pump" the handle and start the machine quickly and easily.



But there are other features—many of them—told about in our booklets. Write for them. They are free to all progressive dairymen and women.

The Renfrew Machinery Co., Limited

Head Office and Works : : RENFREW, ONT.
Sales Branches: Winnipeg, Man., and Sussex, N. B.

Save Money on your Cement Silo—

It is mighty hard work and an expensive proposition to place the last eight or twelve feet of concrete on a cement silo.

To give the best results a silo should be at least thirty feet high. The last ten feet—handling the heavy concrete at a considerable height and under unfavorable conditions—requires skilled labor. It will cost you more in time and trouble than the rest of the job put together.

Save yourself this hard work and cut down building expenses by using steel plate construction to replace the concrete at the top of your silo.

The steel plate comes to you all ready for erecting. It is light, can be readily handled, is rolled, punched and made for quick assembling. You and your own help can put it up. It doesn't need a hoisting crane or a contractor to put the plates together. All you need do, is to follow the marks and know how to swing a hammer.

The plate is rolled to 16, 12 and 14 ft. diameters. Each course is 4 ft. high. Two or three courses placed on top of your cement base will extend your silo the necessary height. What's more—and this is important—if your corn crop is larger than you figure on, you can add a course at any time.

That this steel plate is durable, is storm, shingle and frost proof, and that it will keep an angle 10 to 20 per cent better shape than stone, cement or wood, has been thoroughly demonstrated in the numerous steel silos built by Canadian farmers in the last ten years.

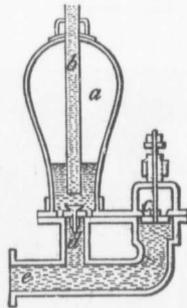
As for price—this plate with rivets supplied—will cost you no more than the cement and gravel alone required for the same amount of concrete work. It's a money saver every time.

Write for prices and full particulars today

The Waterous Engine Works Co., Limited
BRANTFORD - CANADA

Simplest Way to Pump Water

Nothing is so simple and so satisfactory as the hydraulic ram to supply tanks, cisterns and watering troughs. A baby can start or stop it and it will run day and night with



absolutely no attention. It has become practically perfect during the many years it has been used. Of all pumping apparatus it is most rarely

to 60 rods a rule of efficiency is that pipe can be raised five times the height of the fall, or one 100 rods can be raised and discharged as high as the fall. For example, with a fall of five feet, one gallon out of seven may be raised 100 feet, or one-half gallon raised 200 ft.; again, with a 10-foot fall one gallon out of 14 may be raised 100 feet.

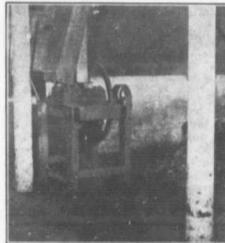
Considering its low cost and the immense amount of work it does, and considering that the ram works with no other attention than starting and stopping, that it is not dependent upon anything but a flow pipe full of water, that it has nothing to get on of order, and only two valves that can possibly wear out, it is little wonder that it has become so widely popular, especially upon dairy and stock farms, where large quantities of water are in constant demand.

My Favorite Implement

(Concluded from page 4)

It makes a first-class cultivator. We can broadcast the grain or adjust the spouts and drill in the grain to depth required. Many use the seed drill for sowing mangold seed, and it does splendidly for that purpose.

We also sow our rape with our seed



This Machinery may be set in Operation by Pushing a Lever

Electric power has advantages possessed by no other form of energy. It may be set in operation instantly and stopped just as quickly. There is no power used at any time. In our illustration may be seen the corner of the O.A.C. cattle stable, Guelph, Ont., and the root pulper and feed cutter both run by electric power.

—Photo by an editor of Farm and Dairy.

out of order. When the valves wear out anyone with a wrench can replace them. Where conditions favor its use it is beyond question the most economical and reliable means of pumping for ordinary farm and household purposes.

The ram consists of a large air chamber (shown at *a* in the cut), a flow pipe, *c*, an overflow valve, *e*, a delivery valve, *d*, and a delivery pipe, *b*. In operation the water flows through the pipe, *c*, and out at *e* until the force of the stream closes the valve there. The stream thus checked raises the valve, *d*, and flows into the air chamber till a balance is struck between the force of the water and that of the air thus compressed. Then this valve falls and the compressed air forces the water out through the delivery pipe, *b*.

TO DETERMINE CAPACITY

Nothing could be more simple. Anyone can determine how efficient the ram would be on his own place. A fall of a few feet only is necessary in the flow pipe. This should be 25 to 50 feet long to gain the needed impulse of current. In practice a fall of 10 feet frequently raises water 100 feet or more, often delivering it 100 or more rods away from the ram. The quantity delivered depends more or less upon the height forced, the distance sent, and the angles in the pipe. For ordinary deliveries at 50

drill. We adjust tubes to the grass attachment, conduct them deep into the spouts and sow the rape & drills, which is the better way. We can easily sow eight acres in half a day. We also use the spring feet in the seed drill to cultivate the rape after it is up. We take off two feet where is the row of rape and do a quick, good job, destroying weeds and what is very essential, stirring the ground. This latter ensures much better conditions for the growth of the rape.

Conveniences in My Stable

(Concluded from page 4)

elevated tanks. Water is also piped to the box stalls. The horses get the water from a cement trough in the stable. The trough is fed from a cement cistern 11 ft. by 8 feet to the corner of the stable, or from the elevated tanks. Water is also taken from either elevated tank or from the cistern by the threshing engine or run into a cement trough in the yard for stock in summer.

When to start improving a stable. Water inside where cattle can get their supply as they want it is to consider, one of the first considerations that should be put in a stable. I have built the elevated tank, feed troughs and cistern out of concrete and found them cheaper and better than wood.

FARM MAN

Experience in Har
H. O. Morse, Ha
We cut our alfalfa
a sower. In our 15
we have tried cutting
we do not now wait
as too commonly
We start the m



Stock from

Peter Pan, the Ayrsh
annual of the breed. I
bury Show, Chicago, w
E. R. New to the Or
bull, four two-year-old

low is off in the morn
alfalfa lie in the awa
of the next morning
the alfalfa in next e
stand for some time,
days. There is anot
to have used once or



Was Her Equi

The greatest animal
Capleton Betty Den
good quality. She has id
and even udder. Prof
size be ever saw. She v

to intend to practice
the future—that of a
penning of putting
the barn in a willed

To Keep Crows

H. A. Oswald, Two
Que.

Some time ago in F
someone asked how to
own milking an and
spring or at seedling t
plants every scheme I
had heard told of
prevent crows destr
the following metho

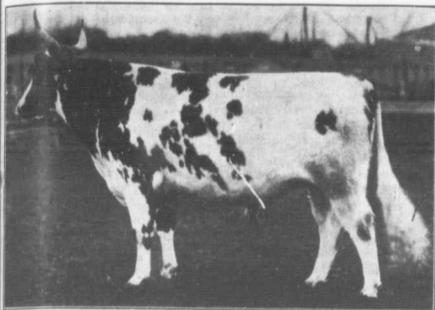
FARM MANAGEMENT

Experience in Harvesting Alfalfa

H. O. Morse, Halton Co., Ont.
We cut our alfalfa as soon as we see a flower. In our 15 years' experience we have tried cutting it as an ensilage, but do not now wait for the full bloom—as too commonly advised. We start the mower as soon as the

which I have found a sure remedy or preventative.

Dump about a bushel or so of seed corn in a tub. Have some hot, nearly boiling, coal tar on hand. Two or three spoonfuls will do. Take a sick or corn cob and put an end in the boiling tar and stir it through the corn for several minutes. Two or three dips with a good stirring each time will give the corn a strong smelt of coal tar without making it sticky for sowing provided the tar is good



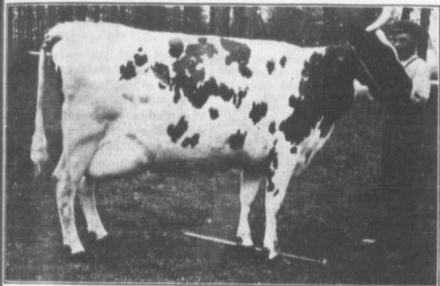
Stock from This Bull are in Demand the World Over

Peter Pan, the Ayrshire bull here illustrated, is recognized as the greatest show animal of the breed. His greatest victory in America was at the last National Dairy Show, Chicago, where he was champion over all breeds. In the consignment of E. R. Ness to the Ormstown sale, June 14th, are eight daughters of this great bull, four two-year-olds and four yearlings. Could anything better be desired.

is off in the morning, and let the alfalfa lie in the swath until the dew of the next morning. We then coil the alfalfa in neat coils and allow to stand for some time, say two or three days. There is another system that we have used once or twice, and which

and hot. Mr. Crow will give a corn field a wide berth after he has once had a grain or two.

When we secure the Referendum in Ontario we need have no further fear of the political heeler or of the in-



Was Her Equal Ever Seen Before This Side of the Atlantic?

The greatest animal in the recent importation of Mr. R. R. Ness, Howick, Que., is Chapelin Betty 2nd, a six-year-old cow of great size, and yet possessed of the best quality. She has ideal dairy conformation and a wonderfully well developed and even udder. Prof. Barton of Macdonald College considers her the best Ayrshire ever saw. She will be in the Ormstown sale.

—Photo by an editor of Farm and Dairy.

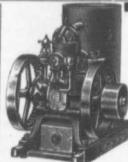
to intend to practice more extensively in the future—that advocated by Mr. Pennington of putting the alfalfa in the barn in a wilted condition.

To Keep Crows From Corn

H. A. Oswald, Two Mountains Co., Que.
Some time ago in Farm and Dairy someone asked how to prevent crows from milling up and eating corn in spring or at seeding time. I had tried nearly every scheme I could think of but had heard tell of without success to prevent crows destroying corn, until the following method was proposed,

fluence of the financial interests of our members in parliament or in the legislature. Wherever the people have the Referendum they have the power to force their governments to submit any legislation to them for approval before it becomes law. In this way the work of the bonus hunters and the seekers for tariff favors can be blocked.—W. C. Good, Brantford, Ont.

Nobody has yet discovered how to get all of the dirt out of milk. The only way to have absolutely clean milk is to prevent the dirt from getting into it.



This Engine Runs on Coal Oil

Every farmer can afford an Ellis Coal Oil Engine. They give far more power from coal oil than other engines do from gasoline. They are safe, as well as cheap; no danger of explosion or fire.

The strongest and simplest farm engine made; only three moving parts; nothing to get out of repair. Anyone can run it without experience. Thousands of satisfied customers use these engines to grind feed, fill silos, saw wood, pump, thresh, run cream separators, and do dozens of other jobs. Cheaper than horses or hired men. Fill up the tanks and start it running, and no further attention is necessary; it will run till you stop it.

FREE TRIAL FOR 30 DAYS. You don't have to take our word for it. We'll send an engine anywhere in Canada on "Thirty Days' Free Trial." We furnish full instructions for testing on your work. If it does not suit you send it back at our expense. We pay freight and duty to get it to you and we'll pay to get it back if you don't want it.

Absolutely guaranteed for 18 years. Write for free catalog and opinions of satisfied users. Special offer in new territory.

3 to 15 horse-power
We pay Duty and Freight

Ellis Engine Co., 90 Mullett Street
DETROIT, MICH.

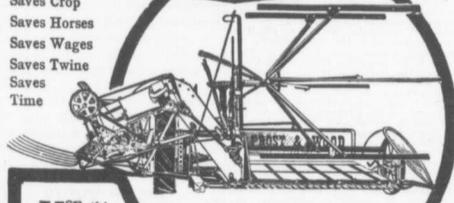
INTERNATIONAL Sold On a Spot Cash Guarantee
GALL CURE
Cures Horses While They Work or Rest
PRICE 25¢ AT ALL DRUGGISTS

\$25 Buys a Sureshot Tile Machine

either 3 inch or 4 inch size, order early and make your own cement tile for spring use. Capacity depends on speed of the operator, ranging from 20 to 60 tile per day. Send for literature.
WILLIAM JOY, Box 278, Napesse, Ont.

FROST & WOOD BINDERS

- Saves Crop
- Saves Horses
- Saves Wages
- Saves Twine
- Saves Time



USE this Binder and harvest all your grain with the least waste of time and energy.
Frost & Wood Binders cut rapidly, elevate thoroughly, and tie each sheaf securely. Ample power is generated by the main drive wheel to cut under all conditions. Every shaft, axle and working part is fitted with a large size Roller Bearing, making this the easiest running Binder on the market. There is no friction, no binding of gears, no chance of driving shafts getting out of alignment. A Frost & Wood Binder has permanent light draft. See the third Roller on Upper Elevator, also the Relief Roller between the lower Canvas and the deck. These two assure you that the heaviest or the lightest grain will be brought up by the canvases and passed on to the Packers without any choking of Elevators or crowding on the deck. Reel and Table are controlled by conveniently located hand and foot levers; so light, heavy, tangled or down grain can be brought to the Cutter Bar and nothing wasted.

The long spokes of the Eccentric Sprocket used on Frost & Wood Binders give the necessary power to compress and tie each bundle thoroughly,—then the short spokes make the discharge arms act quickly and get sheaf out of the way of the next. This feature is worth any man's while to investigate. It and numerous other distinctive advantages of this machine are described in our Binder Booklet. It will pay you to get posted.

A Post Card brings you the F. & W. Binder Book. Write our nearest office.



THE FROST & WOOD COMPANY, Limited

SMITH'S FALLS, ONTARIO
For Sale in Western Ontario and Western Canada by
THE COCKSHUTT FLOW CO. Ltd., BRANTFORD, WINNIPEG

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 Agricultural, Eastern and Western Ontario, and Bedford District, Quebec, Dairyman's Associations, and of the Canadian Holstein, Arhols and Jersey Cattle Breeders' Associations.

2. **SUBSCRIPTION PRICE, \$100 a year, strictly in advance.** Great Britain, \$120 a year. For all countries, except Canada and Great Britain, add 50c for postage. A year's subscription free for a club of two new subscribers.

3. **REMITTANCES** should be made by post Office or Money Order, or Registered Letter. Postage stamps accepted for amounts less than \$100. On all checks add 10 cents for exchange fee received at the bank.

4. **CHANGE OF ADDRESS**—When a change of address is ordered, both the old and new addresses must be given.

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

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 15,000. The actual circulation of each issue, including copies of the paper sent subscribers who are but slightly in arrears, and sample copies, varies from 15,000 to 15,500. All other conditions are accepted at less than the full subscription rates.

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

OUR PROTECTIVE POLICY

We want the readers of Farm and Dairy to feel that they can deal with our advertisers with our assurance and our advertisers' reliability. We try to admit to our columns only the most reliable advertisers. Should any subscriber have cause to be dissatisfied with the treatment he receives from any of our advertisers, we will investigate the matter fully. Should we find reason to believe that any of our advertisers is 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 reputable advertisers as well. In order to be entitled to advertise in our Protective Policy, you need only to include in all letters to advertisers the words, "I saw your advertisement in Farm and Dairy." Complaints must be made to Farm and Dairy within one week from the date of any unsatisfactory transaction, with proofs thereof, and within one month from the date that the advertisement appears. In order to take advantage of the guarantee, we do not undertake to adjust trifling differences between readers and responsible advertisers.

FARM AND DAIRY PETERBORO, ONT.

DOES IT PAY?

Decisiveness is a necessary attribute to the successful business man. We farmers are called on to exercise this quality quite as frequently as any other class of men. But do we?

Were a new and improved machine for the manufacture of nails put on the market, nail manufacturers would carefully size up the new machine. They would decide whether or not its increased efficiency would make the investment in that new machine advisable. And then, did they decide that such an investment would be a paying proposition, they would order the machine immediately.

When a new agricultural implement comes on the market, we discuss its merits or demerits. We agree that it would be a fine thing to have, but we do not get it. We keep putting the purchase off until the old machine

wears out, and we absolutely have to buy a new one. An instance in point is the two row corn cultivator that has been on the market for two or three years now. Would it pay us farmers to sell our old straddle row corn cultivator and buy one of these new and improved implements? There can be no question about it. The larger implement cuts work in two; and hence the expense of cultivating. It enables us to cultivate a large corn field just when it is in the right condition for cultivating. It enables us to pay the hired man bigger wages, and still make a larger profit for ourselves. But in spite of the manifold advantages of this new implement the greater part of the corn in the country is still cultivated by the old one row type of machine; and the greater part of these old cultivators in use are of the walking type.

The fact that the old implement is still in good running order is no reason why we should not sell it to somebody less progressive than ourselves, and get a new two row cultivator. The money that we would save in the labor account alone in the first couple of years, if we grow a considerable acreage of corn, would more than pay for the new cultivator.

It is the same with the manure spreader, the sulky plow, and all other labor saving implements. We realize their value. We know that we could make no better investment. But we keep putting it off.

It is the man of decision who wins every time. In the long run economic conditions will force us to use the new and improved machine, or else go out of business. Why not start now to implement that one of the necessities of life. We sometimes wonder who decide whether or not it will be a paying proposition—and then act.

THE UNEMPLOYED

But have not the problem of the "The Problem of the Unemployed," has a city flavor. We at once think of the great number of working men in our cities and towns who cannot sell their labor and hence cannot supply themselves with the necessities of life. We sometimes wonder why these men do not come out to the country where there is lots of work.

But we have not the problem of the unemployed in the country also? Whatever may be the uncertainty of work in manufacturing centres the unemployment there does not compare with that in the country. In the city severe industrial crises may occur at long intervals. The crises to the agricultural laborer returns every year with the winter. We do not realize how severe this crisis is for our laborers. Population is thinly scattered in the country, and the chances are that the men leave the country to join the ranks of the unemployed in the city to make the problem there more serious.

But we have a problem. The only solution of our problem of the unemployed is steady work the year round. The lack of it has drained the country of good workmen. To be most efficient the farm laborer should spend

all of his time in the country. Preferably he should be born there. But if we would hold such men we must give them some surely of work twelve months in the year.

We dairy farmers are in an extra good position to give employment the year round. With proper management we could use our labor to produce crops in the summer and by having our cows fresh in the fall give inside employment to our men during the winter. Unless we follow some such system as this, the problem of getting labor in the country will continue to be a serious one for both employer and employed. We are pleased to notice the increasing number of our farmers who realize their responsibilities and are making provision for continuous employment for their hired help.

COOPERATION VS. CENTRALIZATION

The introduction of expensive labor saving machinery on our farms has had far-reaching effect on social as well as economic conditions in country districts. This influence on our social well being will become still greater as time brings new improvements.

In our large factories, where machinery plays even a more important part in production than it does on the farm, the laboring man is a mere cog in a wheel of industry. When he wishes to sell his labor the city workman has to depend on the man who owns the machinery to let him work. He cannot start into business for himself as in the old days, when everything was done by hand. He has not the capital to buy the necessary machinery. Thus the very life of hundreds and thousands of working men is practically subject to the will of the capitalist who owns the manufacturing plant, the machinery.

The same condition is developing in rural sections. With the introduction of the power tractor and other large and expensive machinery, it will be harder and harder for us average farmers to live in competition with the extensive farmer who can afford the investment in expensive machinery. It would seem that in time we farmers, who are the backbone of our democratic system of government, may be pushed to the wall and be mere cogs in the machine of rural industry, as are now many of our brethren among the working men in our cities.

How are we to avoid this social danger that is ever growing more dangerous? The peasants of Germany and several other European countries, have shown us the way, or at least one way. In many sections of Germany, where the farms are only a few acres in size, all of the plowing is done by steam tractors at a minimum of expense. These tractors are owned on a cooperative basis by societies made up of numerous small farmers. Threshing machinery is also owned largely on the cooperative basis. We can do likewise.

Farmers will welcome every improvement in machinery that makes possible the greatest production of

wealth, but at the same time we must recognize the social dangers that go with expensive machinery. Is it to be a case of large farms to accommodate large machinery and hence all of the wealth of the country in the hands of a few, or small farmers, large machinery owned cooperatively and a more even distribution of wealth? Which do we prefer?

IS OUR TARIFF TOO HIGH?

We are told that the customs tariff in Canada is primarily a revenue tariff, that it is designed for the collection of moneys necessary to the expenses of Government and that the protection it affords to our manufacturers is only incidental. If our tariff makers are honest in their declaration that the tariff wall is designed for revenue purposes only, then, must, if they would be consistent, immediately start about reducing the tariff. For many years now the Dominion Government has had a surplus plus revenue running into the millions of dollars annually. It is predicted that the surplus in this present fiscal year will be the largest on record. Is it not time to lower the tariff when we get more money than we need for necessary public expenditure?

A great surplus of revenue such as our Government now has, leads to all kinds of extravagance. The gift to Mackenzie and Mann of \$8,500,000, which no one pretends to defend, is a sample of the reckless extravagance that always goes with too large revenues. The move made by the Federal Government to assist agriculture and good roads in the various provinces, expenditures that should be met from Provincial funds, is another example of the effort that is being made to dispose of the surplus revenue that has been taken largely from us farmers by indirect taxation. Increased military expenditure is another method of hiding a surplus and is being advocated most strongly by those who fear that our large surpluses may be a menace to the protection that the "incidentally" enjoy.

If our tariff is for revenue purposes only it is obvious that we are being taxed too highly. And we are sure to advocate a reduction in our tariff rates. Our tariff schedule established primarily for revenue, is now maintained for the benefit of privileged interests who are thereby enabled through the restriction in the tariff places on trade, to make millions of dollars at the expense of us farmers and the working men of our cities.

The "tariff for revenue" argument no longer justifies the height of the Canadian tariff wall. The protection interests recognize that this argument will no longer stand examination and are now advancing other arguments equally hollow in defense of the tariff as it is. We farmers have nothing to gain by allowing special privileged interests to grow rich behind the walls of a protective tariff. It is time that we were lining up strongly with our farmers' organizations in their fight for tariff reduction and equal rights for all.

See this man
way" smile!



In case you
let us intro-
Galloway firm im-
famous of Water-

Ten years ago
travelling salesman
lowsy got his
what advertising

He relates:

"I came across
Geman who had
wanted me to ad-
tract for advertis-
Once a mail order
the machine we
was then that I
through the mail

His first adver-
tion, as mention-
lot of money to
During the last
spent hundreds
dollars in advert-

PAID Every Farm
State is now
names of William
man who divide
the farmer."

Galloway says

"Advertising is
if a certain amount
is won, a certain
quiries will be
quiry, however, I
start towards
is the working of
sale that is the
the mail order by

"Good advertis-
ing is like

"Advertising is
almost everywhere
est and will be
illustrated to cat-
After he notices
something in
that will hold his
reads the whole c-

Galloway is n

To-day he ven-
prising space in
papers than any
in the United S-

It has made him

There's a big
ing one among
Canada to make
success.

Will you step
this field? It's
many who are
small way. It
lies for a "big
one in and wo-

—a Galloway w-

Are you the

Dairy is ready to

at it right and I

will you reflect

"Bill" Galloway

known to millions

made millions f-

"A Paper Farm

XXXII

See this man with the "Galloway" smile!



Someone in Canada will wake up some day and duplicate his great and successful experience with advertising and selling implements to farmers direct by mail.

In case you do not know him let us introduce you to William Galloway, now a millionaire and famous farm implement manufacturer, of Waterloo, Iowa.

Ten years ago while he was a travelling salesman ("Bill") Galloway got his first insight into what advertising could do for him. He relates:

"I came across a good natured German who had a good article he wanted me to sell. My first contract for advertising called for \$83. Once a mail order came to us for the machine we were selling. It was then that the idea of retailing through the mails came to me."

His first advertising appropriation, as mentioned, looked like a lot of money to him at that time. During the last four years he has spent hundreds and hundreds of dollars in advertising and IT HAS PAID. Every farmer in the United States is now familiar with the name of William Galloway, 'the man who divides his melon with the farmer.'

Galloway says: "Advertising is not unlike a crop. If a certain amount of advertising is sown, a certain amount of inquiries will be received. An inquiry, however, is but one-third of a start toward closing a sale. It is the working of an inquiry into a sale that is the strenuous part of the mail order business.

"Good advertising is a field in which there is little competition.

"Advertising should be given the utmost attention. It should be honest and well written, and should be illustrated to catch the reader's eye. After he notices it there should be something in the advertisement that will hold his attention until he reads the whole of it."

Galloway is noted for fair dealing. To-day he carries more advertising space in the agricultural papers than any other advertiser in the United States except one. It has made him wealthy.

There's a big field and a growing one amongst the farmers of Canada to make a "Galloway" success.

Will you step in and cultivate this field? It's a winner now for many who are advertising in small way. It has rich possibilities for a "big" man who will come in and work it in a big way — (a Galloway way)!

Are you the man? Farm and Dairy is ready to help you. Come at it right and it will not be long till you reflect the now famous "Bill" Galloway smile—a smile known to millions and that has made millions for its owner. "A Paper Farmers Swear By"

For the Hired Man

Jas. Ross, Oxford Co., Ont.

I am writing this letter to the hired man who may read Farm and Dairy more particularly than to independent farmers. When I first moved into the country to work several years ago I was lonely. I was the only hired man. It was a good sized walk from that boss's house to the public road. If one wished to go and look up associates in the neighborhood, he would be tired and ready to go back to bed by the time he reached the highway, to say nothing of the time it took to reach the nearest neighbor's a quarter of a mile or so further on. Man is a social animal, so the professors say, and he likes to have the company of his fellows. The difficulty in getting that company was the biggest objection I had to farm work.

Then I bought a bicycle. Now I would not be without one. A mile, two miles, or even four or five miles is nothing when you can jump on to a wheel and cover the roads at the rate of a mile every five or six minutes. See your friends! Why you can see every friend you have in the township without going to the farm as much labor as I did at first to visit my next door neighbor. Of course the boss always has a horse when he wants to go anywhere, but I notice that I can usually get there faster.

Many of the hired men in this section spend over half their incomes on keeping up a horse and rig. Why not buy a bicycle instead?

Dairy Notes

There is no reason why dairying on a small scale should not pay as well in proportion as dairying on a large scale. The trouble is that the farmer who keeps but a few cows often neglects them.

The farmer who gives the dairy side line first-class attention has dairying as his main standby. He finds that it pays.

A long pedigree cannot make a cow profitable when that cow is left to the tender mercies of the straw stack.

It is better to feed an animal well than to keep it in a close ventilated stable, even if the latter method does save feed.

Bad ventilation always goes hand in hand with lowered vitality, decreased milk yields and tuberculosis.

Why Use Traction Ditcher

(Concluded from page 8)

heard. But even at this price they consider they are making a good investment. Dr. Creamer of the O. A. C., had his new farm at Vine-land underdrained last year by a ditcher, and the land is draining nicely this year in spite of the fact that part of it is a heavy, red clay.

The great advantage of the ditching machine is the quickness with which it does its work. If there is such a great advantage from underdraining, and reports from farmers show an average increase of \$20 an acre from drained land each year, then we want to get this additional money coming in right away. Many farmers will put in a few drains this year, a few next year and so on till the job is done. But the \$60 additional returns which they have not received from the acre they left undrained till the fourth year would have paid for underdraining more than two acres the first year. This then is the great advantage of the ditcher—that instead of getting returns from a few tile each year we start immediately to get the benefit from the entire job.

See your friends about subscribing to Farm and Dairy.

DE LAVAL CREAM SEPARATORS

Cheapest As Well As Best

Every sensible person wants the best of everything, but in many things the best is beyond their means and they must necessarily be content with something less.

In the case of the Cream Separator, however, the best is fortunately the cheapest as well, and it is of the greatest importance that every buyer of a separator should know this.

Moreover, the best is of more importance in the case of the Cream Separator than in anything else, since it means a saving or a waste twice a day every day in the year for many years.

It is true DE LAVAL Separators cost a little more in first place than some inferior separators, but that counts for nothing against the fact that they save their cost every year over any other separator, while they last an average twenty years as compared with an average two years in the case of other separators.

And if first cost is a serious consideration a DE LAVAL machine may be bought on such liberal terms that it will actually save and pay for itself.

These are all important facts which every buyer of a Cream Separator should understand and which every local DE LAVAL agent is glad to explain and demonstrate to the satisfaction of the intending buyer.

If you don't know the nearest DE LAVAL agent please simply address the nearest of our main offices as below.

DE LAVAL DAIRY SUPPLY CO. LIMITED
178 William St. MONTREAL. 14 Princess St. WINNIPEG.

PIGS

Again we announce our popular offer of a pure bred pig, eligible for registration, which we will give you free as a premium in return for 9 new subscriptions to FARM AND DAIRY, each to be taken at only \$1.00 a year.

You may have choice of either sex, Tanworth, Berkshire or Yorkshire. We have been sending out hundreds of pure bred pigs. We will send you one, readydandy, for the little time it will take you to get those new subscribers. Write us tonight about the kind of pig you want and get busy and secure your friends and neighbors as new subscribers.

PIGS

FARM AND DAIRY, Peterboro, Ont.

PIGS

STYLE BOOK for 1912, of "QUALITY LINE"

VEHICLES and HARNESS

Eighteenth Year of selling direct to the User. Our Catalogue will help you to choose just the Vehicle or Harness you require, and save you MONEY. It describes and pictures many styles, gives prices, FREIGHT PREPAID, and fully explains our method of selling Direct, and saving you the Middlemen's profit. Remember we pay the Freight in Ontario and Eastern Canada. The Catalogue is Free for the asking. Send for it Today.

INTERNATIONAL CARRIAGE CO.

DEPT. "D"

BRIGHTON, - - - - - ONT.



Canadian Airmotors

Provide Power FREE for Pumping Water

"The wheel that runs when all others stand still." Strongest easiest running windmill made. Self-regulating. Gives steady power and greatest service.

Write for FREE book full of important facts about windmills. Ask Ontario nearest office. **WESTERN WIND ENGINE & PUMP CO., LTD. TORONTO** 103 Wellington, Ontario

Edward Charles Ryott

AUCTIONEER & VALUATOR.

Realize Stock Sales as my specialty. Many years' successful experience out from Woodstock, Oxford Co., Ont., qualify me to get you satisfaction. Correspondence solicited—178 Carlaw Avenue, Toronto, Ont.

Send me FREE and POSTPAID a copy of the new edition of "TRUTH about ROOFING," and tell me how I can protect my buildings against lightning.

Name.....
Address.....
Province.....
Publication, Farm and Dairy

A roof that defies LIGHTNING

That's about the only safe and sure roof for you to invest your hard-earned capital in. A roof that will withstand the fierce onslaughts of the Lightning Fiend can be depended upon to weather proof in every other respect.

PRESTON SAFE LOCK SHINGLES

laid under the new improved specification make an absolutely lightning-proof roof—the only roof that you can afford to buy. Now, we want you to do us a favor; we want you to write for a free copy of a book which fully describes the new Preston Specifications for Lightning protection. Read it carefully. Consider the facts impartially. Then drop us a note telling us exactly what you think, whether you are in the market for a roof or not. Your opinion of this book will be highly valued.

Metal Shingle & Siding Co., Ltd.
Preston, Ont.
100



Cheese Department

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

The Test Up-to-date

By "Laitier," O. A. C., Guelph
By what system are we to pay patrons of our cheese factories? This has been the subject of more discussion for the last 20 years than perhaps any other dairy problem. Before Babcock introduced his test in 1890 there was only one system in vogue, i.e., the pooling system. At the present time there are three systems: (1) paying by weight of milk; (2) paying by weight of fat; and (3) paying by the "fat plus two" method.

Why is it that we have three totally different methods of dividing the proceeds of cheese sales? Two answers suggest themselves: First, that the farmer does not understand the process of cheese making well enough to be able to grasp the fact that all milks are not of equal value in the manufacture of Cheddar cheese, and that the cheese-producing property of a milk is not determined by the amount of fat contained therein. Secondly, that until recently there has been no system to which one could point and say "that is perfect."

WE NOW HAVE COMPLETE TEST

When Dr. Hart brought out his casein test a few years ago the true importance of the discovery was not fully realized, but five years of experimenting, both in the States and on this side have proved conclusively that it, in conjunction with the Babcock test, is of fundamental value in determining the true value of different milks for cheese making. Not only has this fact been proved, but also the practicability of operating the test in the factories themselves was proved this last summer by an O. A. C. undergraduate who conducted a series of tests in each of 10 cheese factories in Ontario. Similar work to this has been conducted with good results in the States.

Theoretically the problem of apportioning the dividends so that every man gets the true value of his product is solved. The next step is to introduce this ideal method (paying by both tests) into every cheese factory in Canada. How can this be accomplished? By either of two ways—education or legislation.

DELAY MEANS INJUSTICE

If the former method is adopted it will be years at least before every man receives his monthly cheque for the pounds of fat and casein that he has sent to the factory, and during these years hundreds of men will be unconsciously swindling their neighbors out of many dollars because the swindlers have not yet wakened up to the fact that the method they employ for paying for the milk is unjust.

Why not combine education and legislation? A suggestion brought forward by I. Lelièvre, Mr. Alex. Mc-

Kay, of the O. A. C. Dairy Department, would be to send a competent man who is thoroughly conversant with both the Hart casein test and the Babcock test, who is also a cheese maker and therefore able to discuss the methods of paying patrons, to each cheese factory in Ontario, and there to point out and discuss the "pros" and "cons" of all the methods of payment in vogue, and then to demonstrate by means of conclusive experimental data the superiority of the casein-plus-fat method over all others.

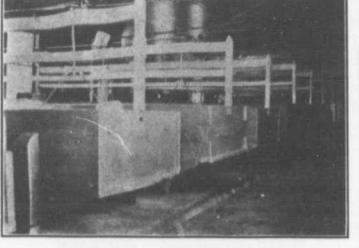
LET MAJORITY RULE

At the end of each such meeting a vote would be taken and the percentage of those in favor of legislation, compelling the use of both tests (the testing being done by government officials), ascertained. If the majority of patrons throughout the province were in favor of such a law then in all probability in a few months every patron would be paid on the same basis, and cold justice would be served to all and sundry.

Influence of the Maker

Strong testimony to the influence that a cheese maker can wield in improving the quality of the milk received at his factory was given by Mr. J. B. Wilson, of Gananoque, at the last session of the Eastern Ontario Dairyman's Association. Mr. Wilson told of the experience of a cheese maker in his syndicate, Mr. J. J. Laval. In 1910 it took 11 pounds of milk to make one pound of cheese in Mr. Laval's factory. In 1911 only 10.62 pounds of milk were required.

Mr. Laval sent all had milk home, and he dealt with his careless patrons



A Big Factory is a Well Equipped Factory

Factories that have a large output as has the Dominion Factory in Perth Co., Ont., can afford equipment that is beyond the reach of the small factory, and hence have better control of the quality of the cheese they turn out. Mr. E. A. Thompson is maker in this factory.

in such a tactful way that they were not offended. The financial results were enough to convince any patron that his method was the right one. He took in that year \$300 more for the same amount of milk than was received in the previous year. Other makers can do likewise.

If we get all of the night's milk of this country cooled down we could be sure of better cheese and letter prices.—J. H. Singleton, Lanark Co., Ont.

I am very much pleased with your *Veterinarian* Book that I got for getting subscriptions to *Farm and Dairy*. The *Look* is appreciated! We have referred to it already. It is certainly a great book in case of emergency. I am much indebted to you and wish your paper all good luck. I hope you will get many more subscriptions. I am going to secure two more subscriptions for a safety razor.—Reg. Bryant, New Westminster Dist., B. C.

PEERLESS PERFECTION



The first cost should be the last cost.

You should put up a fence that will give you real service first, last and all the time. The cheapest is always the most expensive in the long run on account of repairs necessary.

Peerless Fence

because it is the poultry fence that never needs repairing.

Peerless poultry fencing is made of the best steel fence wire—long, elastic and strong—and will not snap or break under sudden shocks or quick atmospheric changes. Our method of galvanizing positively prevents rust and will take many years to the life of a fence.

The joints are securely bolted with the same heavy Locks which we provide with all Peerless fences and strain just as constructed that makes our fences stand up to the most hilly and uneven ground without buckling, sagging or breaking.

The heavy stay wires we use make Peerless poultry fencing stand up to the most severe weather, preventing sagging, and needs only about half the cost of other fences.

We build our poultry fence stronger than anyone because it is so long marked and animals get and close enough to keep the smallest fence. Many of our customers are using this style as a general purpose fence with entire satisfaction.

Peerless Poultry Fence when once put up it always up and always ready for what there is to do, will agree never to leave the farm nor to intrude in any way with your horse trades, will not keep the hired girl up late at nights nor slope with your best driver on Sundays, will not swear at the biscuits when the minister calls, nor show the watermelon patch to the boys from town, will not track mud on the kitchen floor, nor smoke cigarettes in the hay mow.

Not afraid of rain nor hot weather, hold water, resist frost, carrying water, have been specially trained and will guarantee that with my help your crops will increase twenty per cent or more in quantity, and quality improved.

Will prepare your soil for cultivation earlier in the spring and make it warmer by several degrees, will prevent soil baking and forming in clods, will make your subsoil one great factory for the production of food for your growing crop.

Will insure your crops in both wet and dry season without charge, will prevent the soluble and most fertile clover from being washed away, carried off to your neighbor's land by surface washing.

Will feed your live stock, pay your grocer bills, clothe your family, send your children to school, pay your taxes, burn your mortgage.

An straight as a string and sound as a dollar. Strong and cleanest of my race, will do as I agree. Reference—any progressive farmer or stock raiser.

Will contract for life service, have your years of experience and a good record. All that I ask is that you have your burial, you to deduct funeral expenses from increase in first year's crop-swing.

W. W. SMITH DRAIN TILE
Address all communications relating to freight rates and prices f.o.b. your station to

The W. W. Smith Brick & Tile Works
Shallow Lake, Ont.

WANTED---A Home on a Farm

Will work night and day, summer and winter, work hardest, will earn full, but am always ready for what there is to do, will agree never to leave the farm nor to intrude in any way with your horse trades, will not keep the hired girl up late at nights nor slope with your best driver on Sundays, will not swear at the biscuits when the minister calls, nor show the watermelon patch to the boys from town, will not track mud on the kitchen floor, nor smoke cigarettes in the hay mow.

Not afraid of rain nor hot weather, hold water, resist frost, carrying water, have been specially trained and will guarantee that with my help your crops will increase twenty per cent or more in quantity, and quality improved.

Will prepare your soil for cultivation earlier in the spring and make it warmer by several degrees, will prevent soil baking and forming in clods, will make your subsoil one great factory for the production of food for your growing crop.

Will insure your crops in both wet and dry season without charge, will prevent the soluble and most fertile clover from being washed away, carried off to your neighbor's land by surface washing.

Will feed your live stock, pay your grocer bills, clothe your family, send your children to school, pay your taxes, burn your mortgage.

An straight as a string and sound as a dollar. Strong and cleanest of my race, will do as I agree. Reference—any progressive farmer or stock raiser.

Will contract for life service, have your years of experience and a good record. All that I ask is that you have your burial, you to deduct funeral expenses from increase in first year's crop-swing.

"JOY is more divine than sorrow; for joy is bread and sorrow is medicine."—Henry Ward Beecher.

The Second Chance

(Copyrighted)

NELLIE L. McCLUNG

Author of "Sowing Seeds in Danny"
(Continued from last week)

THE next day Dr. Clay wired for the famous specialist, and in a few hours the answer came back that Dr. MacTavish could not leave the city. Dr. Clay had gone back to Libby Anne's bedside before the message came, and so it was to Sandy Braden that it was delivered.

It took Sandy an hour to write his reply, and the wiring of it cost him four dollars, but it really was a marvel in its way—it was a wonderful production from a literary standpoint, and it was marvellous in its effect, for it caused Dr. John MacTavish, late of Glasgow, Scotland, to change his mind. He was just about to leave his house to deliver an address before the Medical Association when this the longest telegram he had ever received, was handed to him. He read it through carefully, looked out at the gathering snowstorm, shrugged his shoulders, read it again, this time aloud, then telephoned his regrets to the Medical Association.

The storm, which had been threatening for several days, was at its height when the train, four hours late, came hoarsely blowing down the long grade into Millford. Sandy Braden was waiting on the snow-swept platform for the doctor, and took him at once to his hotel, where a hot supper was waiting for him. When the doctor had finished his supper he was in a much better humor, which, however, speedily vanished when his host informed him that the patient was in the country, and that they would drive out at once.

"I won't go," declared Dr. MacTavish bluntly. "I won't go out in a blizzard like this for anyone. It's fifteen degrees below zero, and a terrific wind blowing, and the night as black as ink. I won't go, that's all there is about it."

"Now look here, Doctor MacTavish," Sandy Braden said, persuasive. "I know it's a dreadful night, but I have the best team in this country, and I know every inch of the road. I'll get you there!"

"I won't go," said the doctor, in exactly the same tone as before. "And besides," Sandy Braden went on, as if the other man had not spoken, "the little girl is seriously ill, an operation is necessary, and the doctor is counting on you. It is now we need you, and you must come. Think of the poor mother—this little kid is all she has!"

"I know all that, and I'm sorry for her, and for you, too, but I won't go a step in this storm. Don't waste your breath. Don't you know you can't move a Scotchman? I know my own business best."

Sandy Braden controlled himself by an effort. "Doctor MacTavish," he said, "we are wasting time, and that little girl may be gone before we get there. I

suppose you are used to this kind of thing, but mind you, it means a lot to us, and this little girl is not going to die if human power can save her. Will five hundred dollars bring you? If money is any use to you say what you want and I'll give it to you?" He was shaking with the intensity of his emotion.

Dr. MacTavish turned on him with dignity—he was thoroughly exasperated now.

"See here," he said brusquely, "I don't want your money—it's not in the matter of money—I won't go out in this storm. Money won't buy me to freeze myself. Didn't I tell you I'm Scotch and canny?" he added, half apologetically.

Sandy Braden's eyes flamed with sudden anger.

He took a heavy fur coat from a peg in the hall. "Put that on," he commanded. "We will start in about two minutes. The horses are at the door."



Machinery Has its Advantages

Would such a cozy chat be possible with the old dach churn? Photo taken by a Farm and Dairy representative in Victoria, Co. Ont.

The doctor indignantly protested. Without a word Sandy Braden seized his arm with an iron grip and bundled him into the coat, none too gently.

"You are Scotch, are you?" he said, looking the doctor straight in the eye, while he still kept a grip of his shoulder. "Well, I'm Irish, and we're the people who hit first and explain afterward." He opened the door and pushed the doctor ahead of him out into the raging storm.

The best team in the Braden stable was at the door, impatiently tossing their heads and pawing the snowy ground, ready to measure their mettle with the storm.

"Get in," Sandy Braden commanded, and without another word Dr. MacTavish got into the cutter, while one of the men who had been holding the horses came and tucked the

ropes around him.

Sandy Braden jumped in beside him, took up the reins, and with an "All right, boys, let them go!"—they were off!

All evening Dr. Clay stayed beside Libby Anne's bedside, soothing her restlessly and carefully watching every symptom. Her fever was steadily mounting, and she complained of a pain in her side. Mr. Donald, who like everyone else in the household had been since her illness her devoted slave, came once and stood at the foot of the bed. Libby Anne looked up, knew him, and smiled faintly.

Dr. Clay had not mentioned to Mrs. Cavers the coming of the great city doctor, for since the storm had risen to such violence he had given up all hope of seeing him; for no one, he thought, could drive against such a blinding blizzard, even if the train had got through, which was doubtful.

The tent was banked high with snow all round, but the terrific wind loosened the tent ropes hurriedly, and the canvas swayed and belled in the storm. At the entrance, where the path came in between two high banks, the snow settled in drearily, making a little white mound on the floor, like a new grave.

Through the roar of the storm came at intervals the old dog's mournful cry. The lamp on the table, turned low though it was, flickered in the draught, and the storm mourned incessantly in the pipe of the Klondike heater. Through all the other sounds came the rapid breathing of the little girl as she battled bravely with the outgoing tide. Martha and Mrs. Cavers sat on the lounge opposite the bed.

The opening of the tent door let in a sudden gust of wind and snow that caused the lamp to flicker uncertainly. A man in a snow-fur coat entered and hastily slipped off

rolling Scotch voice that has comforted many. "We'll do what we can for the baby."

The two women found their way with difficulty into the house, half-dressed to each other as they struggled through the storm. How did they "rest their feet" to get here? Who brought him? Who fever was so terrible storm? were the questions they asked each other. They opened the kitchen door again and again, but the driver who had brought the doctor and the square of light from the kitchen door revealed only the driving storm as it swept past.

Down in the shelter of the barn Sandy Braden hitched his team to his horses. With the help of his lantern he found a place for them in the stable. All night long, as he waited for the dawn, there was one thought in his brain as he paced up and down between the two rows of boxes, or he looked out of the stable door at the little misty patch of light that now for the first time shone through the storm, an agonizing, burning thought that caused the perspiration to run down his face and more than once forced him to his knees in an agony of prayer, and the burden of his heart's cry was that the little girl might live.

Before daybreak the storm died away, and only the snowdrifts, packed hard and high, gave evidence of its work. Sandy Braden stood quietly up to the tent and looked at the beating of his heart and the choking him. Dr. MacTavish stood on the lounge, the peaceful sleep of a child, or of a man who has done good work. Beside the bed sat Dr. Clay, watching, alert, hopeful. From the tent door where he stood he could see the little white face on the pillow and he knew from the way the child breathed that she was sleeping easily.

The eastern wall of the tent was wet with the dawn. Then he went back to the stable, hitched up his team, and drove home in the sparkling sunshine.

Dr. MacTavish woke up soon after, and Dr. Clay went into the room to tell Mrs. Cavers. She had spent the long night by the kitchen fire listening to the racing of the storm. Martha close beside her in wordless sympathy, and when Dr. Clay came in with the good news that the operation was over, and the great man believed that Libby Anne would live, she was almost hysterical with joy.

"Can I go and see her, doctor?" she cried. "I must go and thank him for coming. Wasn't it splendid of him to come this dreadful night?"

"Come on," Dr. Clay said, with his own face beaming.

"Oh, my dear woman, don't thank me for coming," the doctor said laughing, when in broken phrases she tried to tell him what she felt. "Newly did a man come more anxious to see you than I. But I had no choice in the matter when that big giant got hold of me. He coaxed me at first—laughing at the recollection—then tried to bribe me—I forget what fabulous sum he offered me—half of my kingdom, I think. I mind he asked me if money were any use to me, but I stuck it out that I wouldn't consent until he said he'd bring over some in my body, or words to that effect. So my dear lady, your good man deserves all the credit—he simply bundled me up and brought me, but believe he swore at me, but I'm not sure."

Mrs. Cavers stared at him uncomprehendingly.

"Sal, Clay," the doctor said glared to bribe me—I forget what fabulous sum he offered me—half of my kingdom, I think. I mind he asked me if money were any use to me, but I stuck it out that I wouldn't consent until he said he'd bring over some in my body, or words to that effect. So my dear lady, your good man deserves all the credit—he simply bundled me up and brought me, but believe he swore at me, but I'm not sure."

(Continued next week)

Water Power
Mr. Adam Alexander, Co. Ont., is fortunate in his farm, as a husband of a man and who does not have to hand what can be still, he does not have to have any water to his wife do any work outside a power a substitute. A list of Mr. Alexander's wife are as follows:



A Refreshing

Hot refreshing water covered bucket gets so good soon as it is to its dispenser to people are deriving

washing machine, to be charming the shopping the most was anxious to run by power, but think that was necessary

The power uses small water wheel one horse power, the back kitchen, needed with this with the necessary when it came to



An Old-Fashioned

Few of us would call old times in spite of times running water convenient.

Mr. Alexander was a most chopper considerable power. He has his arm shopping knife is to the end of the house develops a

Water Power Lightens Labor
 Mrs. Adam Alexander of Hulton Co., Ont., is fortunate in that she has a husband of a mechanical turn of mind who does not believe in doing by hand what can be done as well by power in his farming operations. But he still does not believe in letting his wife do any work where he can contrive a power arrangement as a substitute. A list of operations that Mr. Alexander's ingenuity has saved his wife are as follows: Running the

with a minimum of speed. On another page of this issue will be found a description of how Mr. Alexander does his farm work by water power. And what he finds good on the farm he believes should be applied in the home as well.

Dispensing With the Hired Girl

"The scarcity of good servant girls is breaking up the homes of America," writes a despairing gentleman



A Refreshing Draught in "The Good Old Summer Time"

How refreshing was the clear, cold water that we drew from the well in the "good covered bucket" in our boyhood days. No other water has ever tasted quite so good since. In many places the convenience of water on tap has not yet led to its displacing the old open well. Witness the pleasure these Victoria Country people are deriving from the cool contents of the old bucket.

washing machine, turning the wringer, churning the churn, and lastly, chopping the meat. Mr. Alexander was anxious to run the sewing machine by power, but his wife did not think that was necessary.

The power used in the house is a small water wheel developing about one horse power. This is located in the back kitchen. A small shaft connected with this wheel is equipped with the necessary pulleys for running the washer, wringer, and churn. When it came to the meat chopper,

from Pennsylvania, as though the servant girl were corn or meat, water or air. I suppose there was a time when primitive man cried out that stone axes were vanishing, and how would civilization go on without them? But civilization wasn't parasitic upon the stone axe any more than the home is parasitic upon the cook. The need was for a new tool to take the place of the old one—a bow and arrow in place of the axe—as our need today is for labor-saving devices in place of the cook."

The above paragraph appears in a recent magazine article which proceeds to outline some of the possibilities of labor-saving devices. People are quoted who have used with great satisfaction, in place of domestic servants, vacuum cleaners, electric washing machines and wringers, gas and electric ranges, fireless cookers, mechanical water pumps, electric heat regulators for furnaces, and other savers of energy.

SAVED \$500

One woman, having discharged her maid and installed in her place a complete labor-saving equipment, writes: "My household expenses have been cut down about \$500 a year, and I know of no easier way of saving that amount than by being free from the care and annoyance of a maid. I am surprised to find how small our total for food has been this last year."

Mr. H. F. Stimson, chief engineer of the Universal Audit Company, says:

"I present the amount of physical energy known as a kilowatt hour, which can be purchased in large quantities in the form of electrical mechanical energy for two cents, would cost about \$2.28 if purchased in the form of human physical energy at the rate of 20 cents an hour."

It isn't really so cheap as that, for there is a great difference between the wholesale cost of power, quoted by Mr. Stimson, and the retail selling price, but, even allowing for that, the money cost in mechanical energy is vastly less than that of human physical energy, apart from all consideration of the wastefulness of using the efforts of thinking beings for work that can perfectly well be done by unthinking machines.—Toronto Globe.



An Old-Fashioned Water Elevator

Few of us would care to go back to this old hoist in spite of its romantic associations. Running water is so much more convenient.

Mr. Alexander was almost "stuck" as a meat chopper must develop considerable power and yet run slowly. He now has it arranged so that the chopping knife is connected directly to the end of the power shaft, and hence develops a maximum of power

Good to Their Wives

Your wife will do the work even though it kills her. She is not apt to complain. Don't let her overdo herself.

You love your wife and would not willingly see her suffer. You would not have her work when you can save her and add to her years by a small expenditure for labor savers.

Forty-five farmers near Woodstock, Ontario, have made work easier and more pleasant for their wives by each getting a King Edward Vacuum Cleaner, which is made in Woodstock. Many other farmers in Canada have similarly done their duty by their wives.

The Greatest of Labor Savers



A Boy Can Operate It

In house work is the Vacuum Cleaner. It will save all sweeping, all dusting after sweeping, it will get all the dirt, and by using it once every 10 days it will save your wife endless hard work and keep your house clean and sanitary.

The Vacuum Cleaner ought to be used every week or ten days. Then carpets are clean, sanitary, healthful and safe for your children to play on.

It has been our experience that one must first use a Vacuum Cleaner to understand fully how valuable and indispensable it is in house work. We are therefore willing for you to try it for 10 days free.

OUR GUARANTEE

If after you have used our King Edward Vacuum Cleaner for 10 days, and it is not satisfactory, or you know of any Vacuum Cleaner you like better, we will refund your money.

FREE TRIAL OFFER is made in this advertisement to Farm and Dairy readers.

Once used the King Edward Vacuum Cleaner and you would not do without it any more than you would part with your self-binder.

The King Edward Vacuum Cleaner is the lightest of all vacuum cleaners to operate; it has the strongest suction; it costs less money; one person can operate it easily; it is the simplest in construction; it is the strongest—has nothing about it to get out of order, and if properly used will last a lifetime. All of these points we will let you prove.

FREE TRIAL FOR TEN DAYS

We'll send a King Edward Vacuum Cleaner to any home where Farm and Dairy goes. You can try it and if it does not suit you send it back at our expense. If you like it and keep it, then pay us for it. **The price is \$20.00.**

Think what a joy this vacuum cleaner will bring to your wife, your mother, or your sister for whom you get it. There'll be no more carpets to lift; no more rugs to beat; and the endless daily work of sweeping will be done away with.

Write for free catalogue and opinions of satisfied users. Names and addresses given so that you may write them personally. Special inducements to agents.

Have us ship your machine now so you can try it and know what work it will save your women folks in hot weather when they most need it to keep the house clean and save their strength.

GEO. H. KING CO. Limited, Woodstock, Ont.

Reference: The Traders Bank of Canada, Woodstock, Ont.

CHALLENGE

Save you money

Stop all laundry troubles. "Challenge" Collars can be cleaned with a rub from a wet cloth—smart and dressy always. The correct dull finish and texture of the best linen. If your dealer hasn't "Challenge" Brand write us enclosing money. 25c for collars, 50c per pair for cuffs. We will supply you. Send for new style book.

THE ARLINGTON CO. OF CANADA Limited
56-64 Fraser Ave., Toronto, Can. 3425



GOLLARS

Take A Handful Of "St. Lawrence" Sugar Out To The Store Door



—out where the light can fall on it—and see the brilliant, diamond-like sparkle the pure white color, of every grain.

That's the way to test any sugar—that's the way we hope you will test

St. Lawrence Sugar

Compare it with any other sugar—compare its pure, white sparkle—its even grain—its matchless sweetness.

Better still, get a 20 pound or 100 pound bag at your grocer's and test "St. Lawrence Sugar" in your home.

THE ST. LAWRENCE SUGAR REFINING CO., LIMITED, MONTREAL. 67

No "Fish Story" About This

Master Sam. Thorne has the evidence right under his hand. And he caught three more trout weighing one pound each the same day. Sam. is a son of Wm. Thorne, of Norfolk Co. Ont.

the stove, consequently the hot water, at another. The woodshed was directly behind the kitchen, and to get wood we had to go down six steps. To get down cellar, where was kept every thing perishable, we had the choice between going the full length of the 20-foot living room before we reached the cellar stairs, or to go outside, down four or five steps and hence into the cellar through the outside entrance. When we consider that we had to make a trip down cellar half a dozen or more times a day, think of the labor involved.

A little more headwork used in planning that house would have saved the women in all kinds of labor. For instance, if they couldn't have the running water at tap they could at least have had the sink right near the hot water tank on the stove. The woodshed floor should have been built up to the level of the kitchen floor and above all, the cellar door should have been in the kitchen. I have just mentioned a few of the points that might be improved. Anyone, by giving the matter a little thought, might easily make plans whereby many old farmhouses in the country might be rearranged slightly to greatly reduce the work of the housewife.

The Latest Thing in Stoves

For a midnight supper, as for any other meal at any other time, the very latest thing in stoves—the best that stove-artists can do—is a

New Perfection Oil Cook-stove

It concentrates the heat when you want it and where you want it. It is as quick as gas, steadier and handier than coal, cheaper than electricity.

The New Perfection Stove has long, enameled iron-plate chimneys. It is hand-made, finished in nickel, with cabinet top, drop shelves, level radio, etc. Made with 1, 2 or 3 burners.

All dealers carry the New Perfection Stove. Free Cook-Book with every stove. Cook-Book also given to persons sending 5 cents to cover mailing cost.



THE IMPERIAL COMPANY, Limited

Plan for Convenience
Mrs. C. L. Osgood, Ontario Co., Ont.

What a tremendous amount of time women folks are called on to waste in houses inconveniently planned! There is no getting around it, the great majority of our country homes were planned too much with a view to show and too little with an idea of getting work done with the least possible expenditure of effort. Perhaps the fact that we allowed the men to do the planning accounts largely for this. The houses they have produced are certainly a first-class line of women killers.

My grandmother's house, the first house that I have any distinct remembrance of, was an excellent example of this style. The rooms were all unnecessarily large. The sink was at one side of the kitchen and

WHERE THE CROPS NEVER FAIL

**A Good Country to Farm in
A Good Country to Live in
A Good Country for Business**

Central Alberta

CANADA'S RICHEST MIXED FARMING COUNTRY

Write for information to the Secretary of Central Alberta Development League EDMONTON, ALTA. Ask for pamphlet F. D.

THIS WASHER MUST PAY FOR ITSELF.

MAN tried to sell me a horse once. He said it was a fine horse and about 1000 dollars worth. I wanted a fine horse, but I didn't know anything about horses, and I didn't know the man very well either.

So I told him I wanted to try the horse for a month. He said "All right," but I had to pay me first, and I'll give you back your money if the horse isn't all right."

Well, I didn't like that, and I said "I'll give you my money now, but I won't buy the horse, although I wanted it badly. Now, this set me thinking."

You see I make Washing Machines the "1000 Gravity" Washer.

And I said to myself, I see people make things about my Washing Machine as if I thought the horse, and about the man who owned it.

But I'd never know, because they couldn't write and tell me. You see I sell my Washing Machines by mail. I have sold over half a million that way. So, thought I, it is not fair to let people try my Washing Machine for a month, because they pay for them, just as I wanted to try the horse.

Now, I know what a "1000 Gravity" Washer will do. I know it will wash the clothes, without wearing them, and I know that in any time they can be washed by hand or by any other machine.

I know it will wash a tub full of very dirty clothes in six minutes. I know no other machine ever invented can do that without wearing the clothes. Our "1000 Gravity" Washer does not work so smart that a child can run it, and it is well as a strong woman, and it doesn't wear the clothes, but it does break buttons, so to say all other machines do.

It just drives soapy water clear through the fibres of the clothes, like a force pump machine, so, said I to myself, I will do with my "1000 Gravity" Washer what I wanted the machine with the horse. Only I won't wait for people to ask me. I'll make good to offer every time.

Let me give you a "1000 Gravity" Washer on my own free trial. I'll pay the freight out of my own pocket, and if you don't want the machine after you've used it a month, I'll send it back and pay the freight too. Surely that is a good offer.

Doesn't it prove that the "1000 Gravity" Washer will do what the horse would do? And you can pay me out of what it saves to you in wear and tear on the clothes alone. All it will save me to 75 cents a week, over that I wash women's clothes for my own use. And after the month's trial, if I let you pay for it now, I'll give you 25 cents extra, and I'll send you, send me 50 cents a week "I'll paid for it."

And if you don't want it, I'll send you a new one until the machine is paid for.

Drop me a line to-day, and let me send you books about the "1000 Gravity" Washer and washing clothes in six minutes.

Address—Wm. H. Weston, 1000 Washer Co., G. I. Bach, Manager, 78-90 Washer Co., 387 Yonge St., Toronto, Ont.

Wright Plan Plan to whom you will about taking FARM AND DAIRY



HARTSHORN SHADE ROLLERS

See the script name of Hartshorn on label. Get "Improved," no tacks required. Wood Rollers Tin Rollers

A Foster Mother

W. C. Blair, Davis, a regular dairy, in Welland Co. Ontario, in this picture wrote me a neighbor's cow owned this lamb. The cow was the one about and sent from amongst all of the herd.

clothes, washing them, expecting to be entertained all the time, he would not quietly pass away things, and then again so to get the wife so that doesn't run right, a washing machine, a kitchen cabinet, and a decent stove used water boiler, as you see she has not allowed me to see the farmer thinks first of all of his barns and his and comforts before he thinks of his head. The kind of a man who takes his wife to the prayer meeting on if I am far wrong, Mr. corrected, but not corrected.

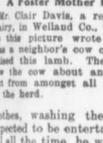
Two Machines

Mr. P. Stearnson, B. My husband has been giving implements for years, but it is only realized that there are a few of the first of the positively cheap that the household. I must not implement of that kind much-depised from house to house, when you are busy, man.

This particular sale to come along our way and I will be in a rush, he had three or four, and he jumped r

A Gallant

R. E. Gunn, Ontario. We farmers talk of an important section of our nation all of I. I think I will that I would not have three good days, and I would not as any man dare boast about those "boys" sees what? I have seen, to supply all the success for the cook to It takes but little thing water in 's he has put it in the barrel, every farmer today that if he does not have just much to install a flushed closet, a bathroom, which certainly is a tedious, money man had to get the for 305 days in a year, 355 holes in as many same time, and saw to say nothing about



A Gallant Farmer

R. E. Gunn, Ontario Co., Ont.
 We farmers talk much of farm power. But do we consider the most important section of the farm organization at all? I think no. I know full well that I wouldn't go very far without three good square meals a day, and I would make as much fuss as any man dare (it's well to be honest about these things for fear the "boss" sees what's written) if I did not get them. Have I not a right, then, to supply all the saving contrivances for the cook that are possible? It takes but little more to put running water in the house than it does to put it in the barn, where nearly every farmer today thinks he is badly off if he does not have it. It does not cost much to install an inside water flushed closet, a bath and proper basin, which certainly help the mother of her tedious, monotonous work. If a man had to get three meals a day for 365 days in a year, mend about 365 holes in as many socks in the same time, and sew on more buttons, to say nothing about making the

ferred to do my washing for me. Of course, I did not take him seriously, but he was insistent. He did not ask me to put up any money at all; just to try the machine. So I did.

A THOROUGH TEST
 It was wonderful how that rotary washing machine did the work. First I put in the coarse pieces of my washing, as I was perfectly certain that even they would get rough usage. But they did not. They came out better than when scrubbed on a washing board. So I tried some finer pieces. Now, after a year's use, I do not consider anything too fine to go into the machine. Of course, we bought it.

Another machine since adopted that I value highly is my bread mixer. That came as a Christmas gift from my two sons, and it was a Christmas blessing. All that I have to do is to put in the proper ingredients, and time my operations so that the crank is ready to be turned just as my husband comes along. Instead of pounding and kneading dough as I used to do by the hour, all I have to do is to stand and see him do the work. The bread is just as good, and all the labor is omitted. An expenditure of \$20 for these two machines has saved me more labor and done more good than any \$100 that can be invested in implements on the farm.

**• • • • •
 We "Cook with Gas"**

Mrs. John Davis, Ontario Co., Ont.
 "Cook with Gas." I suppose we have seen that Lill-board advertisement every time we have gone to town for the last two or three years. It always looked nice to me as I thought of our big hot range in our kitchen at home, but I always passed by gas cooking as a blessing for the city people but one that could never reach the country. Last spring, however, as I looked to spending the summer in a kitchen in company with that hot range, I really got desperate and decided that something had to be done. And then the words of that Lill-board advertisement, "Cook with Gas," came to me with new meaning. The inspiration was quickly followed by the purchase of a three-hole gasoline range, and the summer was spent in comparative comfort. I don't know where the heat went to that boiled water and cooked meals, but it certainly did not come out into the kitchen. My husband now declares that the kitchen is one of the coolest rooms in the house.

I can cook anything in any amount and faster range than with wood or coal. It is much easier to fill the tank with gasoline occasionally than lug coal or fire wood into a stove. And then there is not so much trouble in getting it presentable; we just wash ours. No blackening and polishing in the summer time at our house! We consider our gas range one of the best investments we ever made.

• • • • •
Spots on Lawns
 For various reasons many of our lawns look patchy at this season of the year. The clover has died out, the land should be manured with rotted manure, and spaded deep and thoroughly; then raked fine, and a lawn mixture of Blue Grass, Red Top and White Clover sown. Various mixtures are recommended, but as good a one as any is made up of 42 pounds of Kentucky Blue Grass, five pounds of solid Red Top, and five pounds of White Clover an acre. The Red Top and Clover germinate quickly, and later give way to the slower-growing but more serviceable Blue Grass. Sometimes a little black earth scattered over the bare places, and grass seed sown in it, will soon give a good lawn.



A Foster Mother for the Lamb

Mr. Clair Davis, a resident of Farm and Dairy, in Welland Co. Ont., when he sent us this picture wrote that the animal was a neighbor's cow on which had been nursed this lamb. The lamb would follow the cow about and would pick her out from amongst all of the other cows of the herd.

clothes, washing them, and still be expected to be entertaining and cheerful all the time, he would draw a sigh and quietly pass away. Think of these things, and then answer if it is too much to get the wife a sewing machine that doesn't run like a dead weight, a washing machine of good make, a kitchen cabinet if she wants one, and a decent stove with a good-sized water boiler, say 30 to 60 gallons if she has not already got one.

I honestly think that the average farmer thinks first of the convenience of his barns and his own conveniences and comforts before his wife's wants and his head. Then he considers himself a whale of a good fellow if he takes his wife to the fair, exhibition, or prayer meeting on Thursday night. If I am far wrong, Mr. Editor, I stand corrected, but not convinced.

Two Mackintosh White

Mr. P. Steverson, Bromo Co., Que.
 My husband has been talking labor-saving implements for the last 15 years, but it is only recently that I realized that there are labor-saving implements the first order and comparatively cheap that can be used in the household. I managed to get my first implement of this kind through that much-depised man who goes from house to house and worries you when you are busy, the travelling salesman.

This particular salesman happened to come along our way on wash day, and I can tell you, he had three or four machines on his rig, and he jumped right off and of-

It matters not what heating system you use—Steam, Hot Water or Warm Air, you cannot get that much desired atmosphere—gentle, restful and wholesome—without proper humidity.

WATER SHOULD BE EVAPORATED FREELY, and the

GOOD CHEER

WARM AIR FURNACE

With its big **CIRCLE WATERPAN**, holding from four to six gallons, presents the one heating medium which does a lordly and really comfortable and healthful warmth.

Catalogue mailed on request

THE JAMES STEWART MFG. CO., L^{TD}
 WOODSTOCK, Ont. Western Branch—Windsor, Man.

Is Your Horse Lame?

Fleming's Spavin Cure (Liquid) cures the lameness and removes such blemishes as are soft to the touch—Bog Spavin, Cur, Thoroughpin, Capped Hock, Collar and Shoe Boils, and recent cases of Splint and Bone Spavin.

Fleming's Spavin and Ringbone Paste cures Bone or "Jack" Spavin, Ringbone and Sidebone.

These remedies do not **always** cure—but we'll refund your money every time they fail. Try them on the worst cases you can find—we'll stand behind them, as we stand behind all Fleming's Remedies.

Fleming's Tonic Heave Remedy—a remarkable tonic, which cures Heaves because it puts the system right.

Fleming's Colic Cure—will surely cure if anything can.

Fleming's Lump Jaw Cure—the first successful Lump Jaw Cure—to-day the standard treatment.

FLEMING BROS., Chemists, 83 Church Street, Toronto.

Fleming's
Colic
Cure
Adviser

The best free book in the line. Covers over 100 Veterinary ailments. Tells plainly how to recognize all diseases and remedies and cures them. Free for the asking—write us for a copy.

International Poultry Food

Prevents Cholera and Saves the Little Chicks
 A little chick is just like a little baby—the health depends on its food. Improper feeding opens the way for disease. Chicken Cholera, Roup, Apoplexy, can be prevented and cured by feeding **INTERNATIONAL POULTRY FOOD**.

My chickens had Cholera until some of their combs were turning black. After using a few feeds of International Poultry Food, I never lost another fowl, and Cholera has left my premises.—J. F. BARRETT.

Give all your chickens a daily feed of "International." It keeps them well—fattens up the broilers—makes hens lay all the year round—keeps the cocks vigorous—and insures raising the little chicks. If you want to make money out of your fowls, feed "International Poultry Food."

25c., 50c., and \$1.00 a box. At dealers everywhere. Write for free copy of our \$3.00/00 Stock Book, the greatest book ever written for farmers.

INTERNATIONAL STOCK FOOD COMPANY Limited
 TORONTO



MAXWELL
MAXWELL'S
HIGH SPEED
CHAMPION
 Is the Washer for a Woman

In the first place, Maxwell's "Champion" is the only washer that can be worked with a crank handle at the side as well as with the top lever. Just suit your own convenience.

Another Maxwell feature—Low and Balance Wheel are so accurately adjusted and work up such speed that the washed runs along even when you have stopped working the lever. There's no doubt about Maxwell's "Champion" being the easiest running washer on the market.

Write for new illustrated booklet if you desire does not handle Maxwell's "Champion" Washer.

DAVID MAXWELL & SONS,
 81, King St.,
 Q. 2



QUEEN'S

The Arts course may be taken by correspondence, but students desiring to graduate must attend one year.

Short Courses for Teachers and General Students for the year.

For calendars write the Registrar,
Q. Y. COLLEGE
 Kingston, Ont.

WINTER
 Session
 July 3 to Aug. 17

UNIVERSITY
 KINGSTON, ONTARIO

OLD COUNTRY DOMESTICS

Capable Scotch, English and Irish maids. Also Danish girls. Parties arriving weekly.

Apply only, The Guild, 71 Drummond Street, Montreal or 67 Pembroke St., Toronto.

RAMSAY'S PAINTS

For Practical Painting

RAMSAY'S PAINTS are the best-made by practical men backed by 70 years experience to withstand the summer's heat and winter's cold—one gallon is guaranteed to cover 350 sq. ft. on wood in fair condition with two coats of paint that won't fade or peel.

RAMSAY'S are the paints you want at the price you want.

Ask your dealer in your town.

A. RAMSAY & SON COMPANY, MONTREAL.



Strait Talk and Honest
 Mrs. C. Keilor, Wentworth Co., Ont.

"Yes, sir, I call it criminal. It's a downright shame. Why, that woman over there is young. Had she lived in the city instead of the country she would be most pleasing to look on, the pride of her husband and family."

I looked up to see about whom these two men, who sat behind me in the railway carriage coming out of Toronto, were talking. Just a few seats further on was the object of their remarks—a country woman with numerous parcels and two small children. My attention was then called back to the travelling men, for they had continued their conversation.

SOME SAFE GUERRES

"I let she wrings out her clothes on wash day by hand, kneads the dough by hand on bake day, and considers running to an outside pump for water several times a day a necessary part of her life," said the second man.



HOMEMAKERS TOO, SHARE IN THE BLESSINGS OF IMPROVED MACHINERY

"Too many of them do," spoke up traveller No. 1. "These farmers are anxious enough to reduce their own labor. When I left the farm myself about the only thing we did not ride on was the harrow, but now I see that even behind the ordinary drag harrow they have a little carriage and seat arranged. I have no quarrel with farmers over that. I do not do any more work myself than I have to. But why in thunderation are they not equally considerate of their wives?"

And so the conversation continued. I slipped back and sat down beside that little woman, and we had a talk. In that conversation came out many of her trials and unsatisfied desires. I have found that most of our country

women gradually come to be satisfied to get on with the meager kind of household equipment because we have never known any better. With this woman, however, it was different. She knew the things she should have, but made the mistake of not regarding them as obtainable. And here she was worrying her life away for things her husband could well afford.

AN UNSATISFIED DESIRE

"I always kind of wished we could have a bathroom in the house," she said with a sigh. "I have wanted it more since the children came. But just as I thought that we were going to have one John then thought that he needed a new horse to assist on spring seeding, and the \$200 went for that horse."

"That has always been the way. When he got his new binder two years ago, I told him that the next expenditure must be for a washing machine for myself, but when he came back from town he had on his wagon a



root pulper that he absolutely could not get on without. Why, it is only needed the last three or four years that we managed to get a sink in the house. We kept house for five years before that without one. John says that we should spend money where it will make more money, and I suppose he is right."

MONEY VERSUS HEALTH

But was he right? From what I could gather from this woman's conversation they were well-to-do farmers. The inference was plain. John considered a few dollars added to the income through the expenditure of labor-saving machinery for the farm was much more important than conserving the energy and strength of his wife and the mother of his children. This is a tragedy, a kind of tragedy that has been worked out in every section of our country.

If any of my readers doubt that farm women are overworked, just attend a meeting of women in the country, notice carefully their faces, and then hustle off into town and make some comparisons. It seems only right that our men should keep us women as well supplied with labor-savers in the house as they do themselves on the farm.

My Electric Iron

Mrs. J. Steel, Carleton Co., Ont.

We didn't think of anything but the advantages of having the electric light when the wires were running past our home. Now we find that one of the greatest blessings of an electric current is that we can iron by electricity.

Our electric iron cost us \$5. A few minutes before starting on week's ironing we simply connect the

The Sewing Room

Patterns 10 cents each. Order by number and size for children, give age; for adults for children, give measure for waist, and waist measure for shirts. Address: orders to the Pattern Department.

GIRL'S EMPIRE DRESS, '12

Procks that are made in Empire style are extremely fashionable for the girls and are in all ways pretty and becoming.

For the 4 year size will be needed 2 1/4 yards of material 27, 2 1/2 yards 28, 2 3/4 yards 29, 3 1/4 yards 30, 3 1/2 yards 31, 3 3/4 yards 32, 4 1/4 yards 33, 4 1/2 yards 34, 4 3/4 yards 35, 5 1/4 yards 36, 5 1/2 yards 37, 5 3/4 yards 38, 6 1/4 yards 39, 6 1/2 yards 40, 6 3/4 yards 41, 7 1/4 yards 42, 7 1/2 yards 43, 7 3/4 yards 44, 8 1/4 yards 45, 8 1/2 yards 46, 8 3/4 yards 47, 9 1/4 yards 48, 9 1/2 yards 49, 9 3/4 yards 50.

For the 5 year size will be needed 2 3/4 yards of material 27, 3 yards 28, 3 1/4 yards 29, 3 3/4 yards 30, 4 1/4 yards 31, 4 1/2 yards 32, 4 3/4 yards 33, 5 1/4 yards 34, 5 1/2 yards 35, 5 3/4 yards 36, 6 1/4 yards 37, 6 1/2 yards 38, 6 3/4 yards 39, 7 1/4 yards 40, 7 1/2 yards 41, 7 3/4 yards 42, 8 1/4 yards 43, 8 1/2 yards 44, 8 3/4 yards 45, 9 1/4 yards 46, 9 1/2 yards 47, 9 3/4 yards 48, 10 1/4 yards 49, 10 1/2 yards 50.

For the 6 year size will be needed 3 yards of material 27, 3 1/4 yards 28, 3 3/4 yards 29, 4 1/4 yards 30, 4 1/2 yards 31, 4 3/4 yards 32, 5 1/4 yards 33, 5 1/2 yards 34, 5 3/4 yards 35, 6 1/4 yards 36, 6 1/2 yards 37, 6 3/4 yards 38, 7 1/4 yards 39, 7 1/2 yards 40, 7 3/4 yards 41, 8 1/4 yards 42, 8 1/2 yards 43, 8 3/4 yards 44, 9 1/4 yards 45, 9 1/2 yards 46, 9 3/4 yards 47, 10 1/4 yards 48, 10 1/2 yards 49, 10 3/4 yards 50.

For the 7 year size will be needed 3 1/4 yards of material 27, 3 3/4 yards 28, 4 1/4 yards 29, 4 1/2 yards 30, 4 3/4 yards 31, 5 1/4 yards 32, 5 1/2 yards 33, 5 3/4 yards 34, 6 1/4 yards 35, 6 1/2 yards 36, 6 3/4 yards 37, 7 1/4 yards 38, 7 1/2 yards 39, 7 3/4 yards 40, 8 1/4 yards 41, 8 1/2 yards 42, 8 3/4 yards 43, 9 1/4 yards 44, 9 1/2 yards 45, 9 3/4 yards 46, 10 1/4 yards 47, 10 1/2 yards 48, 10 3/4 yards 49, 11 1/4 yards 50.

For the 8 year size will be needed 3 3/4 yards of material 27, 4 yards 28, 4 1/4 yards 29, 4 1/2 yards 30, 4 3/4 yards 31, 5 1/4 yards 32, 5 1/2 yards 33, 5 3/4 yards 34, 6 1/4 yards 35, 6 1/2 yards 36, 6 3/4 yards 37, 7 1/4 yards 38, 7 1/2 yards 39, 7 3/4 yards 40, 8 1/4 yards 41, 8 1/2 yards 42, 8 3/4 yards 43, 9 1/4 yards 44, 9 1/2 yards 45, 9 3/4 yards 46, 10 1/4 yards 47, 10 1/2 yards 48, 10 3/4 yards 49, 11 1/4 yards 50.

For the 9 year size will be needed 4 yards of material 27, 4 1/4 yards 28, 4 1/2 yards 29, 4 3/4 yards 30, 5 1/4 yards 31, 5 1/2 yards 32, 5 3/4 yards 33, 6 1/4 yards 34, 6 1/2 yards 35, 6 3/4 yards 36, 7 1/4 yards 37, 7 1/2 yards 38, 7 3/4 yards 39, 8 1/4 yards 40, 8 1/2 yards 41, 8 3/4 yards 42, 9 1/4 yards 43, 9 1/2 yards 44, 9 3/4 yards 45, 10 1/4 yards 46, 10 1/2 yards 47, 10 3/4 yards 48, 11 1/4 yards 49, 11 1/2 yards 50.

For the 10 year size will be needed 4 1/4 yards of material 27, 4 1/2 yards 28, 4 3/4 yards 29, 5 1/4 yards 30, 5 1/2 yards 31, 5 3/4 yards 32, 6 1/4 yards 33, 6 1/2 yards 34, 6 3/4 yards 35, 7 1/4 yards 36, 7 1/2 yards 37, 7 3/4 yards 38, 8 1/4 yards 39, 8 1/2 yards 40, 8 3/4 yards 41, 9 1/4 yards 42, 9 1/2 yards 43, 9 3/4 yards 44, 10 1/4 yards 45, 10 1/2 yards 46, 10 3/4 yards 47, 11 1/4 yards 48, 11 1/2 yards 49, 11 3/4 yards 50.

For the 11 year size will be needed 4 1/2 yards of material 27, 4 3/4 yards 28, 5 1/4 yards 29, 5 1/2 yards 30, 5 3/4 yards 31, 6 1/4 yards 32, 6 1/2 yards 33, 6 3/4 yards 34, 7 1/4 yards 35, 7 1/2 yards 36, 7 3/4 yards 37, 8 1/4 yards 38, 8 1/2 yards 39, 8 3/4 yards 40, 9 1/4 yards 41, 9 1/2 yards 42, 9 3/4 yards 43, 10 1/4 yards 44, 10 1/2 yards 45, 10 3/4 yards 46, 11 1/4 yards 47, 11 1/2 yards 48, 11 3/4 yards 49, 12 1/4 yards 50.

For the 12 year size will be needed 4 3/4 yards of material 27, 5 yards 28, 5 1/4 yards 29, 5 1/2 yards 30, 5 3/4 yards 31, 6 1/4 yards 32, 6 1/2 yards 33, 6 3/4 yards 34, 7 1/4 yards 35, 7 1/2 yards 36, 7 3/4 yards 37, 8 1/4 yards 38, 8 1/2 yards 39, 8 3/4 yards 40, 9 1/4 yards 41, 9 1/2 yards 42, 9 3/4 yards 43, 10 1/4 yards 44, 10 1/2 yards 45, 10 3/4 yards 46, 11 1/4 yards 47, 11 1/2 yards 48, 11 3/4 yards 49, 12 1/4 yards 50.

For the 13 year size will be needed 5 yards of material 27, 5 1/4 yards 28, 5 1/2 yards 29, 5 3/4 yards 30, 6 1/4 yards 31, 6 1/2 yards 32, 6 3/4 yards 33, 7 1/4 yards 34, 7 1/2 yards 35, 7 3/4 yards 36, 8 1/4 yards 37, 8 1/2 yards 38, 8 3/4 yards 39, 9 1/4 yards 40, 9 1/2 yards 41, 9 3/4 yards 42, 10 1/4 yards 43, 10 1/2 yards 44, 10 3/4 yards 45, 11 1/4 yards 46, 11 1/2 yards 47, 11 3/4 yards 48, 12 1/4 yards 49, 12 1/2 yards 50.

For the 14 year size will be needed 5 1/4 yards of material 27, 5 1/2 yards 28, 5 3/4 yards 29, 6 1/4 yards 30, 6 1/2 yards 31, 6 3/4 yards 32, 7 1/4 yards 33, 7 1/2 yards 34, 7 3/4 yards 35, 8 1/4 yards 36, 8 1/2 yards 37, 8 3/4 yards 38, 9 1/4 yards 39, 9 1/2 yards 40, 9 3/4 yards 41, 10 1/4 yards 42, 10 1/2 yards 43, 10 3/4 yards 44, 11 1/4 yards 45, 11 1/2 yards 46, 11 3/4 yards 47, 12 1/4 yards 48, 12 1/2 yards 49, 12 3/4 yards 50.

For the 15 year size will be needed 5 1/2 yards of material 27, 5 3/4 yards 28, 6 yards 29, 6 1/4 yards 30, 6 1/2 yards 31, 6 3/4 yards 32, 7 1/4 yards 33, 7 1/2 yards 34, 7 3/4 yards 35, 8 1/4 yards 36, 8 1/2 yards 37, 8 3/4 yards 38, 9 1/4 yards 39, 9 1/2 yards 40, 9 3/4 yards 41, 10 1/4 yards 42, 10 1/2 yards 43, 10 3/4 yards 44, 11 1/4 yards 45, 11 1/2 yards 46, 11 3/4 yards 47, 12 1/4 yards 48, 12 1/2 yards 49, 12 3/4 yards 50.

For the 16 year size will be needed 5 3/4 yards of material 27, 6 yards 28, 6 1/4 yards 29, 6 1/2 yards 30, 6 3/4 yards 31, 7 1/4 yards 32, 7 1/2 yards 33, 7 3/4 yards 34, 8 1/4 yards 35, 8 1/2 yards 36, 8 3/4 yards 37, 9 1/4 yards 38, 9 1/2 yards 39, 9 3/4 yards 40, 10 1/4 yards 41, 10 1/2 yards 42, 10 3/4 yards 43, 11 1/4 yards 44, 11 1/2 yards 45, 11 3/4 yards 46, 12 1/4 yards 47, 12 1/2 yards 48, 12 3/4 yards 49, 13 1/4 yards 50.

For the 17 year size will be needed 6 yards of material 27, 6 1/4 yards 28, 6 1/2 yards 29, 6 3/4 yards 30, 7 1/4 yards 31, 7 1/2 yards 32, 7 3/4 yards 33, 8 1/4 yards 34, 8 1/2 yards 35, 8 3/4 yards 36, 9 1/4 yards 37, 9 1/2 yards 38, 9 3/4 yards 39, 10 1/4 yards 40, 10 1/2 yards 41, 10 3/4 yards 42, 11 1/4 yards 43, 11 1/2 yards 44, 11 3/4 yards 45, 12 1/4 yards 46, 12 1/2 yards 47, 12 3/4 yards 48, 13 1/4 yards 49, 13 1/2 yards 50.

For the 18 year size will be needed 6 1/4 yards of material 27, 6 1/2 yards 28, 6 3/4 yards 29, 7 yards 30, 7 1/4 yards 31, 7 1/2 yards 32, 7 3/4 yards 33, 8 1/4 yards 34, 8 1/2 yards 35, 8 3/4 yards 36, 9 1/4 yards 37, 9 1/2 yards 38, 9 3/4 yards 39, 10 1/4 yards 40, 10 1/2 yards 41, 10 3/4 yards 42, 11 1/4 yards 43, 11 1/2 yards 44, 11 3/4 yards 45, 12 1/4 yards 46, 12 1/2 yards 47, 12 3/4 yards 48, 13 1/4 yards 49, 13 1/2 yards 50.

For the 19 year size will be needed 6 1/2 yards of material 27, 6 3/4 yards 28, 7 yards 29, 7 1/4 yards 30, 7 1/2 yards 31, 7 3/4 yards 32, 8 1/4 yards 33, 8 1/2 yards 34, 8 3/4 yards 35, 9 1/4 yards 36, 9 1/2 yards 37, 9 3/4 yards 38, 10 1/4 yards 39, 10 1/2 yards 40, 10 3/4 yards 41, 11 1/4 yards 42, 11 1/2 yards 43, 11 3/4 yards 44, 12 1/4 yards 45, 12 1/2 yards 46, 12 3/4 yards 47, 13 1/4 yards 48, 13 1/2 yards 49, 13 3/4 yards 50.

For the 20 year size will be needed 6 3/4 yards of material 27, 7 yards 28, 7 1/4 yards 29, 7 1/2 yards 30, 7 3/4 yards 31, 8 1/4 yards 32, 8 1/2 yards 33, 8 3/4 yards 34, 9 1/4 yards 35, 9 1/2 yards 36, 9 3/4 yards 37, 10 1/4 yards 38, 10 1/2 yards 39, 10 3/4 yards 40, 11 1/4 yards 41, 11 1/2 yards 42, 11 3/4 yards 43, 12 1/4 yards 44, 12 1/2 yards 45, 12 3/4 yards 46, 13 1/4 yards 47, 13 1/2 yards 48, 13 3/4 yards 49, 14 1/4 yards 50.

COMBINATION BUST CONFINER AND CORSET COVER, 7453

This corset cover is very simple, yet perfectly practical. There are two fronts classically fitted and they are slightly full, and the fit for one are so generous that one can wear it beneath a thin blouse and it is pretty and becoming.

For the medium size will be required 12 yards of material 34, 11 1/4 yards 35, 11 1/2 yards 36, 11 3/4 yards 37, 12 1/4 yards 38, 12 1/2 yards 39, 12 3/4 yards 40, 13 1/4 yards 41, 13 1/2 yards 42, 13 3/4 yards 43, 14 1/4 yards 44, 14 1/2 yards 45, 14 3/4 yards 46, 15 1/4 yards 47, 15 1/2 yards 48, 15 3/4 yards 49, 16 1/4 yards 50.

This pattern is cut in sizes for girls from 4 to 8 years of age.



SEMI-PRINCESS GOWN, 738

The simple gown that is made in semi-princess style is practical and so full and exceedingly fashionable. This one can be made illustrated, with a fancy collar and bow sleeves, or it can be finished with a neck-band and with long sleeves and shirt waist style.

The quantity of material required for the medium size is 7 yards of material 27 inches wide, 5 1/2 yards 28, 5 1/2 yards 29, 5 1/2 yards 30, 5 1/2 yards 31, 5 1/2 yards 32, 5 1/2 yards 33, 5 1/2 yards 34, 5 1/2 yards 35, 5 1/2 yards 36, 5 1/2 yards 37, 5 1/2 yards 38, 5 1/2 yards 39, 5 1/2 yards 40, 5 1/2 yards 41, 5 1/2 yards 42, 5 1/2 yards 43, 5 1/2 yards 44, 5 1/2 yards 45, 5 1/2 yards 46, 5 1/2 yards 47, 5 1/2 yards 48, 5 1/2 yards 49, 5 1/2 yards 50.

This pattern is cut in sizes 34, 36, 38, 40, 42, 44 and 46 inch bust measure.



A Heifer
 Palmyra, Ontario
 June 14th, for a trial of an alert, vigorous cow of the first order, and the first place before the show.

was offered in the sale, and those that had seen her had already bought her. She was the greatest producing cow I ever saw under the hammer. Several of the best breeding as the world records record. She has won many prizes and has long been the leader in her class. I have a brief summary of her record, as given, as the offering in previous issues. She was inspected the first of the season. One of the best in the sale. Miss Hall, a very fine cow, was the best. Mr. Logan has a very fine cow for this cow, but she is the best. This is the best of all the breeders. I have used to make this sale. All of Mr. Logan's cows are of this kind, and they will make me for the trimming.

This minutes' driving on the farm of James Dryden, away, but we took a look at her in his consignment. She is a very fine animal in her four daughters in and good cow. Another thing is a weaver of August, a strong, healthy white.

She will not need to be bred of Hector G. Barber. These heifers are showing and her to be a very fine cow. I will make this sale a success in the stable of

THE ORNSTOWN SALE OF LIVE STOCK
 One of the most attractive of live stock fairs that has yet come under the hammer in Canada is the stock that will be disposed of at Ormstown, Que., on June 14th. In his description of this fairing in Farm and Dairy of May 23 and Mr. Gilbert McMillan made things look pretty rosy. But he did not exaggerate. As editor of Farm and Dairy recently sent a few days in the Beauharnois District of Quebec and inspected some of the lots that will have consignments at this sale, and he can endorse all that Mr. McMillan has said in previous issues. There are several reasons why prospective buyers of Ayrshires, Holsteins or Guernseys should attend this sale. In the first place the Beauharnois district in itself is well worth seeing. Even if a buyer could not get what he wanted at the sale at Ormstown he could in one day driving pick up enough pure-bred stock in the country to make a car load. In some sections the district as many as 15 or 20 breeders can be reached in a radius of a few miles. Most of the Ayr-

shires attracted particular attention. She was champion dairy cow at the Ormstown spring show last year, and has recently been purchased by Prof. Barton for their demonstration trail as a model dairy cow. She was possessed of great depth and well-sprung rib, with great feeding capacity and a grand silky udder. She was certainly a model dairy cow.

We spent an afternoon and evening inspecting the herds of the three Nees boys, D. T. Nees has two choice yearling heifers for the sale. These are almost all white and of good show type, and of good milky breeding. In Mr. R. R. Nees's consignment are some of the greatest animals ever brought to this country. Mr. McMillan in the May 23 issue of Farm and Dairy was very enthusiastic in his description of this high quality offering, and one could hardly say too much in their praise. Chappleton Betty 2nd, illustrated in this issue, is certainly the finest Ayrshire cow we ever saw. A feature of the consignment will be four two-year-old heifers and four yearling heifers sired by the great Peter



The Underwood is the result of concentrated effort to achieve the ideal. It embodies in one machine all that is of value in a typewriter.

A WONDERFULLY efficient organization, the highest inventive genius, a capital of fourteen million dollars—all are constantly focused on this single objective—the production of one perfect writing-machine.

THE Franklin Institute, in awarding to the Underwood the Elliott-Cresson Medal for "ingenuity, skill and perfection of workmanship" say in their report—"We find in Underwoods having more than five years' usage, no detrimental wear."

The Underwood is sold at the price which should be paid for a machine of its quality.

United Typewriter Co. Ltd.

Everywhere in Canada
 HEAD OFFICE—TORONTO

A Heifer that would Attract Attention in Any Company

Pinakstone Bonnie Maggie, in the consignment of R. R. Nees to the Ormstown sale, June 14th, for a two-year-old is a dandy. She is wonderfully deep and full of alert, vigorous carriage. She gives promise of being a show cow and producer of the first order. Mr. Nees expects to hear great things of her. She calved a short time before this photo was taken.

—Photo by an editor of Farm and Dairy.

Pan, the champion over all breeds at Chicago last year, and the greatest Ayrshire show bull in the world. Mr. Nees is also offering some nice imported yearling bulls. McMillan and Leggett at Springburn Farm in the Huntingdon district are offering something choice in Awenknein Good Gift, their herd bull, an illustration of which appears elsewhere, and fothe of his daughter, which has developed wonderfully in the last year, and is as deep, straight and good middled a bull as one would care to see. (See illustration elsewhere.) Mr. McMillan is endeavoring to build up a herd of grand milkers, and at the same time to preserve correct Ayrshire and dairy type. With this object in mind he has collected a herd of good sized, strong cows that are good to look at and will do their duty at the pail. D. A. McFarlane of Kelso is consigning a very fine young cow and a promising two-year-old heifer. Rosebud's Monarch of Kelso is a bull calf worth having. Were it not that he does not wish to breed, Mr. McFarlane would keep this calf for his own. His mother is an imported cow, almost all white, and is of the type, low-set producing kind. We predict that if Mr. McFarlane goes in for R.O.P. work his herd would soon be numbered as one of the best producing herds of the breed.

The pick of the offering of Mr. Cravers at Ormstown is Pacey, a yearling heifer, illustrated elsewhere in this issue. This is a home-bred heifer that gives promise of developing into a milkier worth while. Her stall mate, Ormstown Leap, is a tidy bull calf not yet a year old. He will make a good-sized bull. Mr. Cravers is offering five altogether, and they are good ones. The Holsteins

The Holstein offering at this sale will be a choice one, numbering 30 head. Mr. (Concluded on page 26)

Hay Tools, Litter and Feed Carts, Stanchions.
 All our goods guaranteed. Get our prices.
R. DILLON & SON,
 SOUTH OSHAWA, ONT.

MERCHANTS PRODUCE CO.
 Butter Eggs Poultry Honey Beans Apples Potatoes, etc.
 Our constantly growing trade demands large supplies of choice farm products. We need you. Write for weekly market letter.
 57 Front St. E., Toronto
 Established 1889

AGENTS We will pay you well for new tubular criptions to this practical journal.
FARM AND DAIRY, Peterboro, Ont.

The Right Building Material
 for
Houses, Barns, Implement Sheds
 Whether you are building an implement shed, a granary or a house or barn, the most **ECONOMICAL** and **DURABLE** building material is "Metallic."
 For Barns: Corrugated Steel Siding and "Eastlake" Metallic Shingles make a barn absolutely fire, lightning and weatherproof.
 For Houses: Metallic Rock Faced Stone or Brick Siding will give your house the appearance of a stone or brick dwelling. It is easily and cheaply applied and very durable. "A 25-year actual test" has proven "Eastlake" Shingles the best roofing.
 All about the permanent roof you want is told in our **extensive free booklet, "Eastlake Metallic Shingles."** Write for it now.
 PUNCE PARS 600 MANUFACTURERS
The METALLIC ROOFING CO. LIMITED
 1184 King St. W. TORONTO
 Branch/Factory: WINNIPEG Agents in Principal Cities

OUR FARMERS' CLUB

Correspondence Invited

NOVA SCOTIA
KING'S CO., N.S.

BERWICK, May 25—Notwithstanding the very high price of grass seed this year, a great quantity is being sold. Last year we had a very dry season, and the catches were not good, and many meadows are being or ought to be plowed under this spring. This spring began very dry, and clouds of dust followed the harrow, but lately we have had separate rainy days with snowing days of overcast skies, thus keeping the ground moist and ideal for seeding and planting. The weather has been warm and agreeable for working, thus everything is rushing its growth. On complaint to the Railroad Commission with regard to a dangerous level crossing at Berwick, they at once investigated the matter, sending inspectors to examine the

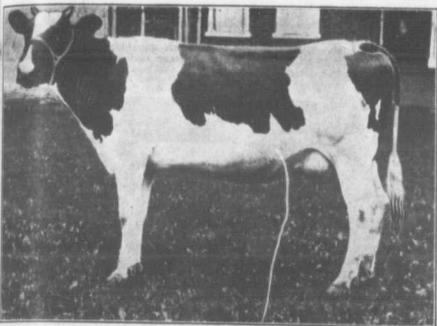
corn growing states of the West—W. H. Stacey.

ALBERTA

COCHRANE, May 25—Weather has been almost wintry the last few days, snow and sleet falling most of Saturday, 18th. Cochrane is to have an exhibition and recreation ground in the near future, 20 acres having been purchased from the T.N.O. Railway. Plowing is now in full swing. Fall onions look promising. Creamery butter is 40c; eggs, 35c; oats, 50c; wheat, \$2.25; bran, \$1.75; shorts, \$1.85—E. E. S.

ALBERTA

RED DEER DIST., ALTA.
RED DEER, May 25—Prices for dairy products during the past six months have been exceptionally high, and dairymen who were wise enough to go in for winter dairying have reaped a rich harvest. The prospect for summer prices are very good, and, with promise of lots of grass, dairymen are in high spirits. The Laurentis Milk Co. of Alberta, Ltd., with the head office at Red Deer, will operate factories at Red Deer, Sylvan Lake, Bowden and



The Pick of a Quebec Holstein Herd

The heifer here illustrated, Baroness Mercedes 2nd, owned by J. J. Tannerhill, Longton, Que., is a show heifer as well as a producer. Notice the straight, strong back, long even quarters and the shapely udder. This heifer here appears a disadvantage, the photo being taken when she was empty. When seen to advantage she is hard to fault. She will be sold at Ormatown on June 14th.

—Photo by an editor of Farm and Dairy.

and, without more complaint on our part they ordered the Railway Company is put in an electric belt, which will save people of a train's approach. These years ago Clydeedale horses were as far between, but now they are but replacing the light draft horse.—L. W. B.

QUEBEC.

RICHMOND CO., QUE.

DANVILLE, May 25—For two weeks we have had very wet weather. Farmers who have heavy wet land find it impossible to get their seed in. All cattle are out and the grass is fair. There is a good supply of young foals in the country this spring. Small pigs are scarce, price \$3; one seed, \$10 to \$12 a bush; butter, 25c; eggs, 18c—M. D. B.

ONTARIO

CARLETON CO., ONT.
BRITANIA HEIGHTS, May 21—Seedling nearly completed. Quite a number of ewe meadows were killed. Hay, \$17 to \$18; oats, 55c; eggs, 25c; butter, 23c to 24c to 25c. Veal is a little brighter at 80c by carcase. Beef is scarce at 13c a lb. for hinds. Pork light, 8 1/2—J. D.

LEEDS CO., ONT.

GANANQUE, May 25—Farmers were pretty well along with the seeding when the big rain came, but has been delayed about 10 days. Very few have finished. Hogs are high, pork selling at 9c; potatoes, \$1.20 a bag; hay, 8 1/2; oats, 50c; eggs, 28c; butter, 27c—G. H. C.

KENT CO., ONT.

DOVER, May 25—There are some corn silos in Kent County, but in this township of Dover, which is the best township in the county, there is not one corn silo. We grow on an average of one to 10 bushels of good hard corn to the acre. A good deal is sold for seed corn, but we feed it to fatten cattle just as it grows without husking. We fatten two carloads of cattle each winter and have long running with the cattle as they do in

Economize on the Milk



Raise Healthy Calves Like These
RAISE THEM WITHOUT MILK
You can do it with

CALFINE

"The Stockman's Friend"
(Made in Canada)

Now that milk is so high in price and so readily, it will be wise to feed Calfine and sell the milk.

Calfine has given excellent results wherever it has been tried. It is now in use on some of the largest and best equipped farms in Canada.

It will pay you to try Calfine. Ask your dealer for a 100-lb. bag of Calfine as a trial. You will soon be back for more. If your dealer does not handle it write us direct.

NOTICE—

If you would like to try Calfine, and cannot secure it from your dealer, send us a money order for \$1.75 and we will ship you 100 lbs. as a trial and pay the freight on same to any station in Ontario south and east of Sudbury.

Compare this price with that asked for other calf meals. (Rural ours is worth a trial.)

Feeding instructions will be sent each reader of this paper who applies to us for them. Write us to-day and learn how to raise your calves at much less expense than it has been costing you in the past. Your spring calves will do fine on Calfine.

Remember Calfine is made in Canada. You pay no fancy price for it like you do for calf meals of foreign manufacture. There is no duty to pay when you buy Calfine.

BUY CALFINE and try it on those new-born calves of yours. It will pay you big to use Calfine for them.

DO IT NOW

Canadian Cereal & Milling Co., Ltd.
TORONTO, CANADA

The Oxford District Holstein Breeders Club

Will hold their first

Auction Sale of Registered Holsteins

Wednesday, June 12th

In the Curling Rink, City of, WOODSTOCK, Ont.

Commencing at 1 p. m. sharp

80 Head Mostly R. of M. Cows or daughters of R. of M. Cows, most of them served by great sires. A few choice Males from ancestors backed by large records.

This is a strictly choice lot of Holsteins, and everything that enters the ring will go to the highest bidder. The Club is behind this sale and have very strict rules to ensure a square deal to all.

A public meeting will be held night before the sale.

Catalogue tells all about everything.

Write for yours, to **George Rice, Sec.,** Tilsonburg, Ont.

M. L. HALEY, Pres.

COL. R. E. HAGER, Auct.
Algonquin, Ill., U. S. A.



Big Ben



Don't set your mind—set Big Ben

Don't bother your head about getting up. Leave it to Big Ben.

You ought to go to sleep at night with a clear brain—untroubled and free from getting up worries. You men, if you are up to date farmers, work with your brains as well as with your hands. Such a little thing as "deciding to get up at a certain time in the morning" and keeping it on your mind often spoils a needed night's rest and makes a bad "next day." Try Big Ben on your dresser for one week. He makes getting up so easy that the whole day is better.

Big Ben is not the usual alarm. He's a timekeeper; a good, all-

purpose clock for every day and all day use and for years of service.

He stands seven inches tall. He wears a coat of triple-nickel plated steel. He rings with one long loud ring for 5 minutes straight, or for 10 minutes at intervals of 20 seconds unless you shut him off.

His big, bold figures and hands are easy to read in the dim morning light, his large strong keys are easy to wind.

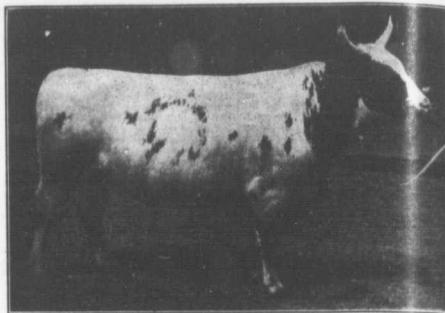
His price, \$3.00, is easy to pay because his advantages are so easy to see. See them at your dealer.

5,000 Canadian dealers have already adopted him. If you cannot find him at your dealer's, a money order sent to *Wm. L. La Salle, Illinois*, will bring him to you duty charges prepaid.

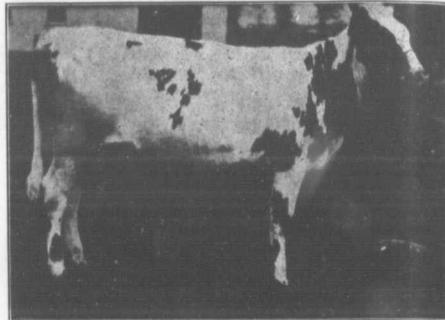
\$3.00

At Canadian Dealers.

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



This Grand Bull will be a Good Investment for Some One
McMillan and Leggat, Trout River, Que., are offering at the Ormstown sale their herd bull, Auchinbrain Good Gift, and four of his daughters. The kind of stock he is getting, which can be seen at the sale, are the best recommendation we can give this bull. He has developed wonderfully in the last year and will be one of the attractions of the great sale on June 14th.



One of the Good Things to be Sold at the Ormstown Sale
Fancy, the yearling heifer here illustrated, is one of the consignment of J. J. Cavers, Ormstown, Que., to the sale to be held there on June 14th. This is a type, milky looking heifer, a grand handler and promises to make a cow of which her purchaser will be proud.
—Photo by an editor of Farm and Dairy

HOLST

LYNDALE H

Bull Calves, cow
\$2000

BROWN BROS.

LAKEVIEW

Bull Calves, bred with Sir Mona, and by Count Hengerveld

E. F. O. BRONTE

WILLIAMS

A Daughter of
183, 189. Large, it
marked, in calf to a
larger bred Friesian De
Also a number of
yearly ready for serv
see also Johanna Bie
Tidy Abbecker's Mer
from 189
COLLIER V. ROBBINS
Penwick State

FOREST RIDGE

Bred headed by the
Sigs Hestartin, whose
average 27.87 lbs. butter
has six sisters whose
are than 20 lbs.
We own junior Eyer
of over 20 lbs. butter in
year-olds with records
in 7 days. Also ma
the latter in 7 days.
Males and females fo
also you want or com
L. LIPSHITZ, Prop.
High Co. on Pt. Burw

Ourville Hol

Present offer
months old
our great bu
Sir Abbecker.
EDMUND LAIDL
ELGIN COUNTY, AYLW

Holstein Her

Look up the breeding
under No. 8,450 and
want some of his Hol

We have them for a
big bulls, by extra st
ROBT. A. GILLESPIE.

FAIRVIEW FA

Too much money
year for poor bulls.
good ones. Sons of
Big Apple Korrydick
Colantha Gladi, for
herd. Come and see
E. H. DOLLAR.

Pure Bred

The choice Young G
bolls. Must be sold a
G. W. SMITH, BOX 2

AVONDALE FAR

Yorkshire and B
A. C. HARDY
SERVICE
KING PONTIAC ART
King of the Pontiac
Aries—B.T. the cut
the butter in 36
PRINCE HENGERVE
Fieble Hind's Wood
Princess Hengerveld
batter in 7 days; bi
use of Hengerveld
Imperial English Yo
winning stock, and al
Address all correspon
H. LOBNE LOGAN, Man

EQUIP YOUR BARN LIKE THIS!

Your Cows will Produce More in a Sanitary Stable and Your Work will be Cut Squarely in Two

STEEL STALLS ARE SANITARY

They do not soak up manure. The main cause of the spread of tuberculosis in cattle is through urine and manure. No danger with steel stalls.

DO NOT OBSTRUCT THE SUNLIGHT

Sunlight is the best disinfectant in the world; with steel stalls there are no dark corners. They allow a free movement of light and air. That means healthy cows.

COW COMFORT MEANS INCREASED PRODUCTION

Cows tied in BT Stalls have all the freedom they desire. They can freely get up and down; they can lie on either side and card themselves on almost any part of their body, yet they cannot move backward or forward. By the use of our aligning device they can be lined up to the gutter and all droppings fall in the gutter and the cattle stand remains clean.

STEEL STALLS ARE DURABLE

When you put in BT Stalls you have a permanent job; no posts rotting off; no partitions breaking; no repairs to make. Isn't that worth something?

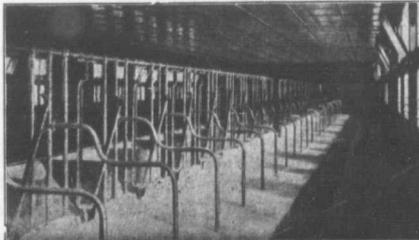
BE UP-TO-DATE

Let us send you our free book. It gives you all the latest designs and lay-outs recommended by our best agriculture authorities and the largest dairymen. It gives the best method of ventilation and the proper measurements for manger, cattle stand and gutter.

Send for This Book Today. Use the Coupon

BEATTY BROS.
Fergus, Ont.

We also make Iron Horse Stable Fittings, Hay Tools and Litter Carriers



MAIL THIS COUPON TODAY

BEATTY BROS., 3093
Fergus, Ont.

Kindly send me free your book, "How to Build a Dairy Barn," and your catalogue on BT Sanitary Barn Equipment.
How many cows have you?

Are you going to remodel or build?

If so, when?

Do you need a Hay Track or a Litter Carrier?

Name

Post Office

Province

HOLSTEINS

LYNDALE HOLSTEINS

Bull Calves from high record cows sired by the
\$2000 Bull King Pontiac
 Artis Canada

BROWN BROS. LYN, ONT.

LAKEVIEW HOLSTEINS

Bull Calves, sired by Dutchland Orlinda
 Her Mona, and out of better sired by
 Gunt Hengerveld Fayne Dekol.

E. F. OSLER
 BRONTE - - - ONT

**WILLOW BANK
 HOLSTEINS**

A Daughter of Pontiac Herms (5442)
 out of imported Herms. Born April
 15, 1909. Large, straight and nicely
 marked, in calf to a good son of Gunt
 Hengerveld Fayne Dekol (7977).
 Also a number of young bulls. One
 ready for service, whose grand
 sire is Johanna's Best Lad (3109) and
 his Abberker's Mercena Poosh (4391).
 L. H. LIPHY, Prop., Stratfordville, Ont.
 OLIVER V. ROBBINS, RIVERBEND,
 Fenwick Station, I.L.B.

FOREST RIDGE HOLSTEINS

Red headed by the grandly bred King
 Red Herms, whose six nearest dams
 average 27.67 lbs. butter in seven days. He
 has six sisters whose records average bet-
 ter than 25 lbs.
 We own junior 2-year-olds with reports
 of over 20 lbs. butter in 7 days and junior
 heifers with records of over 25 lbs. but-
 ter in 7 days. Also mature cows up to 28 1/2
 lbs. butter in 7 days.
 Bulls and females for sale. Write us for
 lists you want or come and see them.
 L. H. LIPHY, Prop., Stratfordville, Ont.
 U.G.N. Co., on Pt. Burwell Branch of C.P.R.

Oruvilla Holstein Herd

Present offering—Bull Calves, five
 months old and younger, from our
 great bull, Dutchland Calantha
 Sir Abberker.
EDMUND LAIDLAW & SONS,
 ELGIN COUNTY, AYLMER WEST - ONT.

Holstein Heifer Calves

Look up the breeding of Herrick Grange
 under No. 8450 and see if you do not
 want some of his Heifer Calves.
 A. GILLESPIE, ABBOTSFORD, QUE

FAIRVIEW FARM HERD

Too much money is spent every
 year for poor bulls. Why not buy a
 good one? Sons of Pontiac Korndyke,
 Sir Apple Korndyke, and Sir Johanna
 Calantha Gladi, for sale; 150 head in
 herd. Come and see them or write.
E. H. DOLLAR, Heuvelton, N.Y.

Pure Bred Holsteins

The choice Young Cows and Two Young
 Bulls, be sold at once.
G. W. SMITH, Box 236, DUNDAS, ONT.

AVONDALE FARM HOLSTEINS

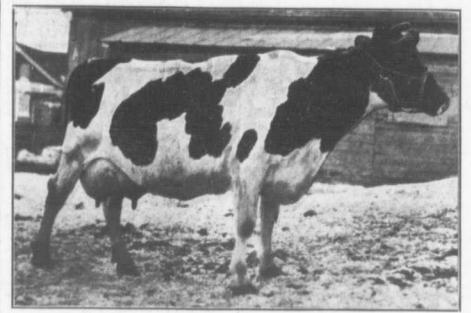
Yorkshire and Horned Dorsets
A. C. HARDY - Proprietor
A. SERVICE BULLS:
KING PONTIAC ARTIS CANADA,—Sire,
 King of the Pontiacs; dam, Pontiac
 King 17 lbs. butter in 7 days, 1.977
 lbs. butter in 36 days.
PRICE HENGERVELD PIETZE,—Sire,
 Field's Hind's Woodland Lad;—dam,
 Princess Hengerveld Dekol—35.64 lbs.
 butter in 7 days; highest record daugh-
 ter of Hengerveld Dekol.
 Imperial English Yorkshires from Prize-
 winning stock, and all ages, for sale.
 Write for correspondence to:
H. LOHNE LOGAN, Manager, Brockville, Ont.

MARKET REVIEW AND FORECAST

Toronto, Monday, June 3.—Wholesale
 men are receiving a large volume of or-
 ders and trade in all lines is brisk. The
 weather of the past few days has been
 such as to create optimistic feeling in
 trade circles. A 30 per cent increase in
 the acreage of grain is reported. The
 outlook for a large crop is bright, which
 also tends to create confidence. On the

ducks, 15c to 14c; geese, 15c to 15c; turkeys,
 25c to 25c. On the Farmers' Market chick-
 ens sell at 15c to 15c; fowl, 14c to 15c;
 geese, 16c to 16c; ducks, 15c to 23c; hens,
 15c to 16c; turkeys, 15c to 25c.

DAIRY PRODUCE
 The butter market is quiet and easy.
 Dealers are offering for dairy prices 22c
 to 23c; creamery prints, 5c to 5c; solids,



A World Beating Holstein Owned in Quebec Province

The cow here illustrated is Rhoda Queen, bred and owned by Neil Sangster,
 Ormstown, Que. For three days in public test and evidence of constan-
 tancy, a world's record. Notice the wonderful depth and evenness of her
 in this cow. Her daughter, Rhoda's Queen 2nd, also a public test winner and ex-
 cepted by Mr. Sangster to exceed the record of the dam, is to be sold at the
 Ormstown sale, June 14th, Advt.

farmers' market most lines of produce is strong.

WHEAT

During the week numerous enquiries
 have been received from foreign buyers
 and export trade has been good. Chicago
 market shows 2c and Winnipeg 2 1/2c de-
 cline on the week. Quotations are as fol-
 lows: No. 1 Northern, \$1.10; No. 2, \$1.07;
 No. 3, \$1.01; Manitoba feed wheat, 67 1/2c;
 Ontario wheat, 61 1/2c to 61 1/2c in car lots
 outside.

COARSE GRAINS

Heavier sales were made on foreign ac-
 count under brisk enquiry. The general
 trend of the market is more active. The
 notable exception is oats, trading being
 quiet. There was a foreign demand for
 corn, but practically none was available.
 Reserves of grain are giving out here and
 in the United States. Barley, malting, 86c
 to 86c; feed, 66c to 70c; oats, C.W., No. 1
 1 extra feed, 46c; No. 1 feed, 46c; Ontario
 No. 2, 46c to 48c on car at country points
 and 51c to 52c on coast. Quotations are as fol-
 lows: No. 1 Northern, \$1.10; No. 2, \$1.07;
 No. 3, \$1.01; Manitoba feed wheat, 67 1/2c;
 Ontario wheat, 61 1/2c to 61 1/2c in car lots
 outside.

MILL STUFFS

Quotations are as follows: Manitoba
 bran, 95¢; shorts, 85¢; Ontario bran, 95¢;
 shorts, 85¢. At Montreal bran is quoted
 at 82¢, showing a decrease of 1¢ a ton;
 shorts, 87¢; middlings, 85¢.
POYAS AND BEANS
 Prices are the same as last week. On-
 tario potatoes sell in car lots on track
 here, \$1.99 a bag and out of store, \$1.50.
 Delaware, \$1.90 in car lots and \$2.10
 out of store; English and Irish potatoes,
 81¢ out of store and 81¢ in car lots.
 Beans here are quoted at 87 1/2¢ for
 prime and \$3 for hand picked. At Mon-
 treal three-punt pickers sell at \$2.62 1/2.

EGGS AND POULTRY

Receipts are larger than last week. As
 a result lower prices are being paid at
 country points. The quality is only fair.
 Eggs are being packed owing to high
 prices. Dealers are quoting 25c to 25c
 per new laid eggs. Farmers' retail eggs at
 25c to 25c. At Montreal dealers are pay-
 ing 25c to 25c in the country.
 Wholesale quotations on dressed poultry
 are: Chickens, 15c to 17c; fowl, 10c to 12c;

HOLSTEINS

SPRING BROOK Holsteins and Tamworths

Your last oppor-
 tunity to get a "Brightest Canary" bull. Sires
 four nearest dams average over 27 lbs. butter
 per week. These are show bulls, straight and
 full of quality, out of richly bred dams. Will
 be best breeders. Now they are gone. Come
 and see them. They are proud to sell.
 Another bull 14 months and a daughter Grand-
 son of Ice-Kol 2nd's Butter Boy 3rd, a rare
 good bull.

A. C. HALLMAN, Waterloo Co., Breslau, Ont.

ELMDALE DAIRY HOLSTEINS

For Sale: 3 Yearling Bulls and
 Calves, out of Record of Merit dams, and
 and sired by Palatin Ormsby. He is
 a sire of Canary Ruby Gruby, 28 lbs.
 A.R.O., at 3 yrs. 3 mos., 41 lbs. of
 milk. Highland Lad's butter in 7 days,
 1 mon., 54 lbs. milk, 19.25 lbs. butter in 7
 days. If you want this kind at a reason-
 able price, write
FRED. CARR, Box 115, St. THOMAS, ONT.

RIVERVIEW HERD

Offers Bull Calves from 2 to 10 mos. old,
 sired by KING ISABELLE WALKER,
 whose 4 nearest dams and sister average
 20.88 LBS. BUTTER IN 7 DAYS and 115.87
 lbs. in 30 days from dams of likewise
 breeding, at exceptionally low figures, to
 make room.
P. J. SALLEY, LACHINE RAPIDS, QUE.

Lynden High-Testing Holsteins

I am offering the 2-year-old bull, Lord
 Karyoke de Kol. His sire has 23 dams in his ped-
 igree that average 27 lbs. of milk per day each.
 A. R. O. His dam, Spotted Lady de Kol, 23
 lbs. butter 7 days; L. L. lost, 104.00 lbs. butter
 30 days; 3.97 test, at 11 years old. Also bull
 calves and a few good tested cows.
S. LEMON - - - LYNDEN, ONT.

N.B. Having sold all my yearling

bulls, I am now going to offer
 the young set of 10. Deane's End
 Lulu, the Dam of Lulu Kaye.
 He is 3 weeks old, light in color, straight
 and well formed. Price \$10.

E. B. MALLORY

FRANKFORD - - - ONTARIO

GLENDALE HOLSTEINS

Entire crop of pure-bred Holstein bull
 calves and a limited number of heifers,
 whose sire, Dutchland Calantha Sir
 Echo Syria, over 21 lbs. butter in 7 days,
 R.O.M., vs. 1 year 11 months (world's re-
 cord); Lulu Kaye, 23.66 lbs. in R.O.P., as
 a senior 2-year-old (world's record), and
 Jewel King Post, 24.64 lbs. in 7 days, butter
 at 4 years (world's record). Prices reason-
 able. All correspondence promptly an-
 swered.
WM. A. SHAW, Box 31, FOXBORO, ONT.

25c to 35c; inferior, 15c to 20c. Cheese is

HAWK BICYCLES
 An up-to-date High Grade
 Bicycle fitted with *Deluxe* Dams
New Durable Coaster Brake
 and *28" Spoked* Tyres,
 high grade equipment, includ-
 ing 34" frame, \$22.50
 Pump and Tools.
 Send FREE 1912 Catalogue,
 with 100 pages of Bicycles, *Sundries*
 and *Repair Material*. You can
 buy your supplies from us at
 Wholesale Prices.
T. W. ROYD & SON,
 27 Notre Dame St. West, Montreal.

Who Wants a Show Bull Fit for Service?

From a cow that was 25.10 lbs. butter in 7 days and 106.23 lbs. in 30 days. She also
 made record of 20.23 lbs. in 7 days 8 months.
 Grand Dam made 28.75 lbs. in 7 days. First check of \$150 takes him. Write
GORDON H. MANHARD - - MANHARD, ONT.

Holsteins Over 4% Fat

I have established on a
 farm at Oshawa, Ont., a herd of Holstein Cattle
 whose milk contains over 4% fat. These Holsteins, which
 shall be unbeatable and all shall give milk 4 per cent or over in fat content.
 Present offering for sale Bull Calf, grandson of King Segis and Pontiac Pet,
 the World's Champion Butter Cow.

A. A. FAREWELL : : OSHAWA, ONT.

BREEDER'S DIRECTORY

Cards under this head inserted at the rate of \$4.00 a line per year. No
 card accepted under two lines nor for less than six months, or 25 insertions
 during twelve months.

YORKSHIRE PIGS, all ages, either sex.
 Choice young stock. Is for service.—J.
 O. Benfield, Woodstock, Ontario.

HAMPSHIRE PIGS—Canadian Champion
 herd. Boar herd breeders. Shows, three
 months and under.—Hastings Bros.,
 Crosshill, Ont.

CLYDESDALES, Imp. Stallions and Fil-
 lings. Fresh Importations always on
 hand. Every mare guaranteed in foal.
 J. & J. Sempie, Milverton, Ont., and
 Laverne, Minn., U.S.A.

FOR TAMWORTH SWINE—Write John W.
 Todd, Gertons, Ont., P.O. No. 1.

HOLSTEINS AND TAMWORTHS—All ages,
 also S.O.W. Leghorns. Young stock for
 sale at any time.—J. McKenzie, Willow-
 dale, Ontario.

CLYDESDALES—Home of Acme. (Imp.)
 Holsteins—Home of King Faye Segis
 Clothie, nearest 7 dams 27 lbs. butter
 per week and 104 lbs. in 30 days.—
 R. M. Holby, G.T.E. & P.O. Manches-
 ter, Ont., Myrtle, O.P.R.

Farming

has become a specialized
business



It's no longer a "hit-or-miss" occupation, where "any old way" is good enough. Farmers are buying pianos and automobiles as never before. They're *living* as well as *working*.

The farmer has learned that it *pays* to employ progressive methods. That's why he is ever ready to receive helpful suggestions for improving his crops, his land and his home. It's also the reason that more than fifty thousand Canadian farmers are enthusiastic about our handsome book,

"What the Farmer Can Do With Concrete"

It isn't a catalogue, nor an argument for you to buy something. It is clearly-written, interesting, profusely illustrated. It describes the various uses to which concrete can be put on the farm. Not theories, but facts, based on the *actual experience* of farmers all over the continent. It is the most complete book on the subject ever published, fulfilling the

purpose behind it, which is to help the farmer take advantage of concrete's possibilities. The list of subjects covers every conceivable use for concrete on the farm. The book's actual value to you will far exceed the list price of fifty cents, but if you will send us your name and address at once we'll be glad to

Send it to You Absolutely Free

Send a post card for it—do it to-day. The book will be sent by return mail.

**Canada Cement Company,
LIMITED**

National Bank Building, Montreal



RBINE

RAILWAY SYSTEM

KERS' IONS CANADA

1912
today thereafter
nia or Chicago
N - \$34.00
N - \$42.00

to Toronto 118
rying Through
Tourist Sleeping

CARS

Route to
AKE OF BAYS
RENCH RIVER
EODGIAN RIV
TAWAN RIVER
TRUNK
erature to 327

ell It?

the
which
Do
DUR
IN
To
A
well?
you?

EGGS FOR
Remember
nearly 1300
what you
VERY LOW
advertis-
Farm and

our reach
agricultural
WE GIVE
E OF OUR
CENTS PER

DAIRY.
O, today
ement, and
satisfactory
table made
you have

se

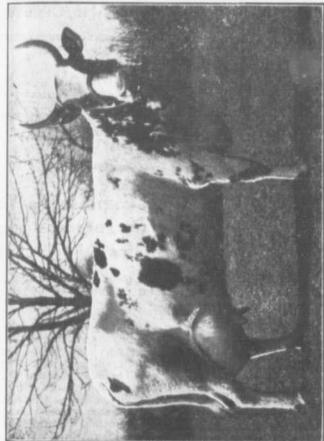
Ticks.
S OFF
Horses
s, making
ey for you,
paration, ap-
ows in good
as its coat in

FER

Back
ON Co.



GRACE—Just a heifer, yet established in 1911, offering 2726 lb. milk, 301.86 lbs. fat. Average test 5.5. In October gave 1,700 lbs. milk, 62.02 lbs. fat.



SYBELLA OF SPRINGBANK—41.5 lbs. milk, 48.68 lbs. fat in 307 days and freshened twice in 11 months. Average per cent fat 13.3.



SNOWLAKE—12,264 lb. milk, 95.79 lbs. fat, average per cent 4.41, produced in 299 days, freshening twice in the year. Her calf in milk.

80

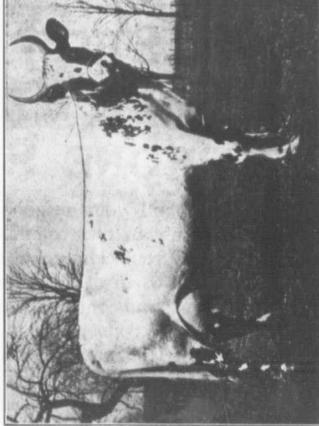
DISPERSION SALE

80

A. S. Turner & Son
Ontario, Canada

Tuesday, June 18th, 1912

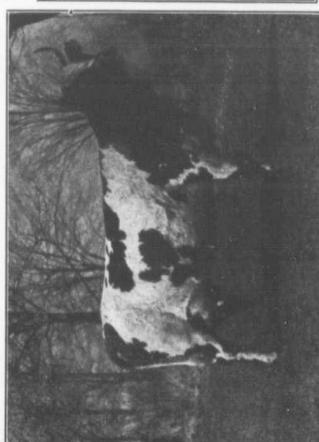
Illustrated Catalogue



BRIERY 2ND OF SPRINGBANK—Holds world's 5-year-old record, producing 11,000 lbs. milk, 1,000 lbs. fat in 1909. Fully atom in October, value \$250.24 worth of milk, but 99¢ a gallon.



SOCIETY PRINCESS—41.5 lbs. milk, 48.68 lbs. fat in 307 days and freshened twice in 11 months. Average per cent fat 13.3.



JEMIMA OF SPRINGBANK—has record of 6,634.15 lbs. milk, 396.33 lbs. fat; average test, 4.97, per cent of 4.99 in milk, 5th best picture in catalogue. Full address: 24, Ontario, 1912, winter.

OF EIGHTY HEAD, OF CANADA'S GREATEST R. O. P. HERD OF Ayrshire Cattle

OF EIGHTY HEAD, OF CANADA'S GREATEST R. O. P. HERD OF Ayrshire Cattle

Consult Catalogue for Records and Other Photos

Consult Catalogue for Records and Other Photos

At Springbank Farm, three miles South of HAMILTON, ONTARIO

At Springbank Farm, three miles South of HAMILTON, ONTARIO

Give full particulars of Breeding, Photographs and Milk and Butter Records. Will be mailed on request. WHITE FOR YOURS TO-DAY.

Give full particulars of Breeding, Photographs and Milk and Butter Records. Will be mailed on request. WHITE FOR YOURS TO-DAY.

Because of illness in our family, we are obliged to dispose our entire herd of Record of Performance Ayrshire Cattle, amongst which are numbered Canadian, American and other famous blooded animals.

Because of illness in our family, we are obliged to dispose our entire herd of Record of Performance Ayrshire Cattle, amongst which are numbered Canadian, American and other famous blooded animals.

We have for 15 years been breeding these cattle. The work has entailed a great deal of painstaking effort, which we have ever taken pleasure in.

We have for 15 years been breeding these cattle. The work has entailed a great deal of painstaking effort, which we have ever taken pleasure in.

LET US SHOW YOU HOW EASILY YOU AND YOUR NEIGHBORS CAN HAVE A TELEPHONE SYSTEM OF YOUR OWN

YOU—you and your neighbors—would have a telephone system for your own community, if you only realized how easily you yourselves could construct it and get it going. If you knew, in detail, how you and the people around you could form, own and control a local, self-maintaining company, for your own use and convenience, you would have such a system. There would be a telephone system in your community to-day if you knew how easily you and your neighbors could build every foot of the line and install every instrument yourselves—and especially if you realized that you do not need very much capital to do it either. Now, there is no reason why you should not know all these facts; for we stand ready to give you, for the mere asking, every bit of this information, provided only that you are sufficiently interested in the subject to write and ask us for it.

We Send This Book

FREE

But Only On Request

HOW to Build Rural Telephone Lines," is an illustrated, cloth bound book of one hundred pages, full of a carefully indexed mass of information on rural telephones. This book tells everything; with it before you, you can organize your own company and construct your own line. It tells you absolutely everything you need to know, step by step, as you go along. There is no other book in existence that deals so thoroughly with every vital, essential fact. Remember, this book has cost a lot of money and careful study to prepare. We really ought to charge for it. However, we send it free on request—but ONLY on request. To get it you have to send us the coupon and thus signify that you are really interested. The book is too valuable to distribute haphazard.

Send Us The Coupon Now

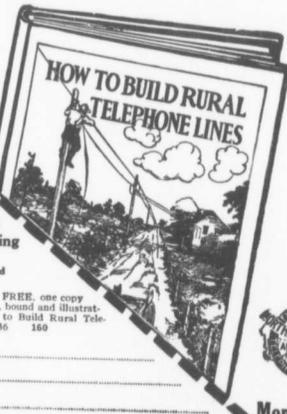
The Northern Electric and Manufacturing Company Limited

Gentlemen: Please send me FREE, one copy of your 100 page, bound and illustrated book on "How to Build Rural Telephone Lines." 236 160

Name.....

Post Office.....

Province.....



Montreal

We Will Explain All About Rural Company Organization

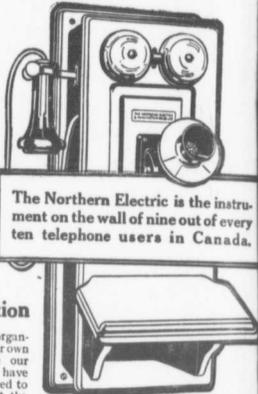
YOU do not need experience to organize a telephone company in your own community, when you have our book. It tells you exactly what you have to do and how to do it. All you need to do is follow the instructions that the book gives and then get out and interest your neighbors. Whether you want to organize a mutual or a stock company, the book will tell you how.

You And Just Your Own Friends Can Build Every Foot Of Line

BUILDING your own line keeps down construction costs. With the help we give you, you do not need to employ expert linemen. The book explains the last word in line construction and contains, in this one chapter alone, thirty-seven diagrams and illustrations, showing how to make every kind of connection necessary, how to route the line, how to put the fittings on the poles, how to guy the poles, how to place the insulators and every detail as well as an expert lineman can. On request, we will also tell you of your provincial regulations, what your government requires and what it will do to help you.

The Cost To Operate Your Own Line is Low

YOU can readily understand that when you and your friends have the entire management in your own hands, you can regulate the cost of running the line. In the book we explain just exactly what is necessary and you can take your pencil and figure out how little it will cost you to have a telephone on the wall, in your own house.



The Northern Electric is the instrument on the wall of nine out of every ten telephone users in Canada.

Let Us Explain To You How To Interest Your Neighbors

THE first step in getting started, is to enthruse your neighbors and get them all in with you. When you have read "How to Build Rural Telephone Lines," at your finger ends that will enable you to place positive, definite facts before your friends, to enthruse them with the idea of a self-maintaining, community-owned system and to make everybody around you anxious to help. All it needs to get a telephone system started, is for some one progressive man to start the ball rolling. With the information that we will place at your command, you can get everything organized in short order.

There Will Be A Telephone System In Your Locality — Get Posted

SOONER or later someone is going to start a telephone system in your community, just as systems are being started every day in farming centres throughout the Dominion. When this subject comes up, you will want the full particulars before you. Now is the time for you to post yourself. The book tells you everything and, if you are interested, we will be glad to send it to you free. Do you care to finish the coupon and send it to us now?

THE Northern Electric AND MANUFACTURING CO. LIMITED

Manufacturer and supplier of all apparatus and equipment used in the construction, operation and maintenance of Telephone, Fire Alarm and Electric Railway Plants. Address our nearest house

236

Montreal Toronto Winnipeg Regina Calgary Vancouver