

28, 1914

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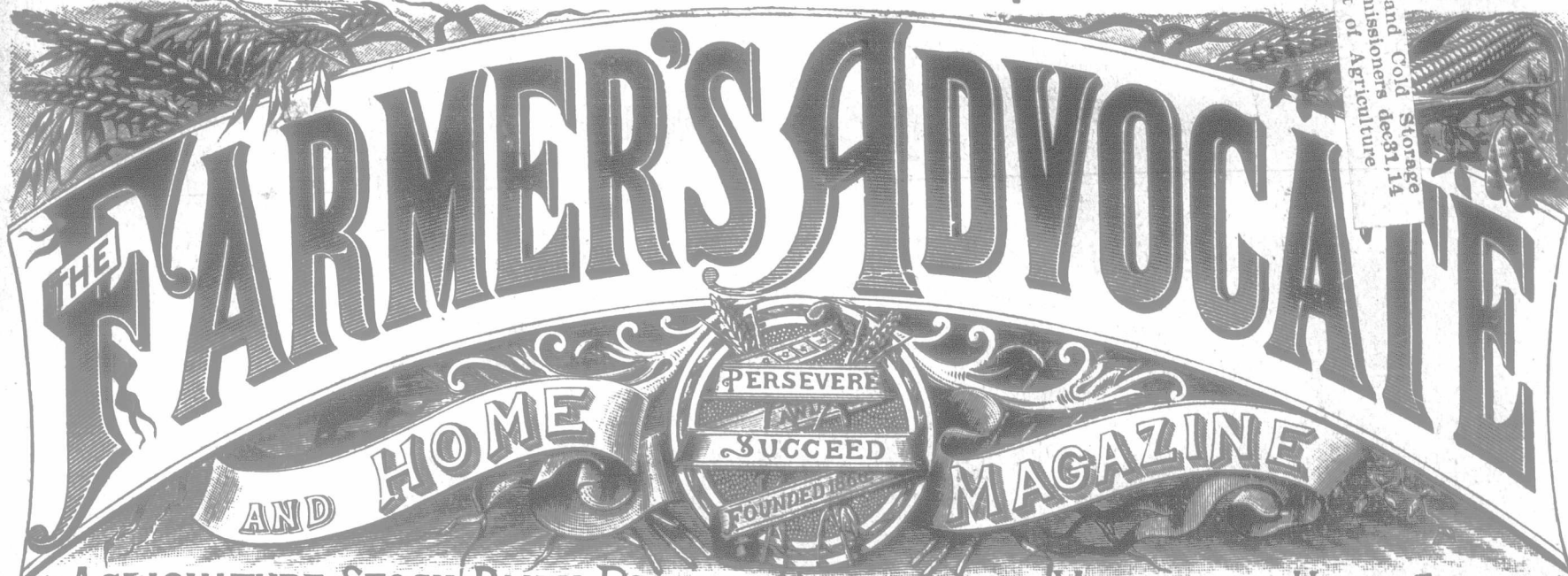
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Dairy and Cold Storage  
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Dept of Agriculture

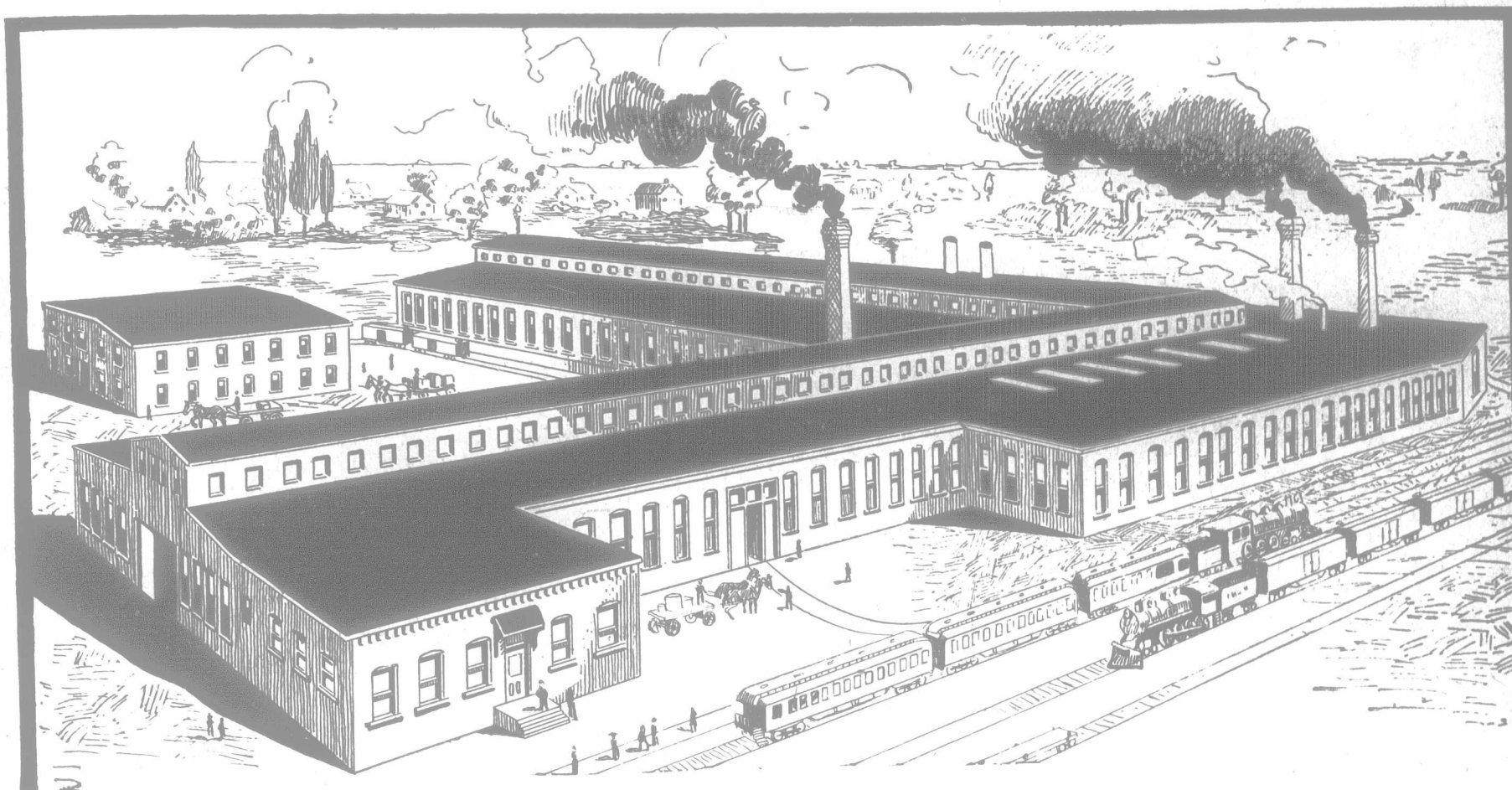
\*AGRICULTURE, STOCK, DAIRY, POULTRY, HORTICULTURE, VETERINARY, HOME CIRCLE.\*

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VOL. XI.IX.

LONDON, ONTARIO, JUNE 4, 1914.

No. 1132



## Used on Canada's Greatest Industrial Plants

It's worth noting that the largest firms in Canada specify **Brantford Roofing** for their new plants. The great works of The R. McDougall Co., of Galt, Ont., shown above, were roofed entirely with **Brantford Roofing**.

It was chosen for its well-known enduring qualities and because it represented to the shrewd business men at the head of The R. McDougall Company, the best roof-investment money could procure. They sought a roof that would be proof against heat, frost, wet, fire, acids and destructive gases, such as are given out by the locomotives that pass the plant many times daily.

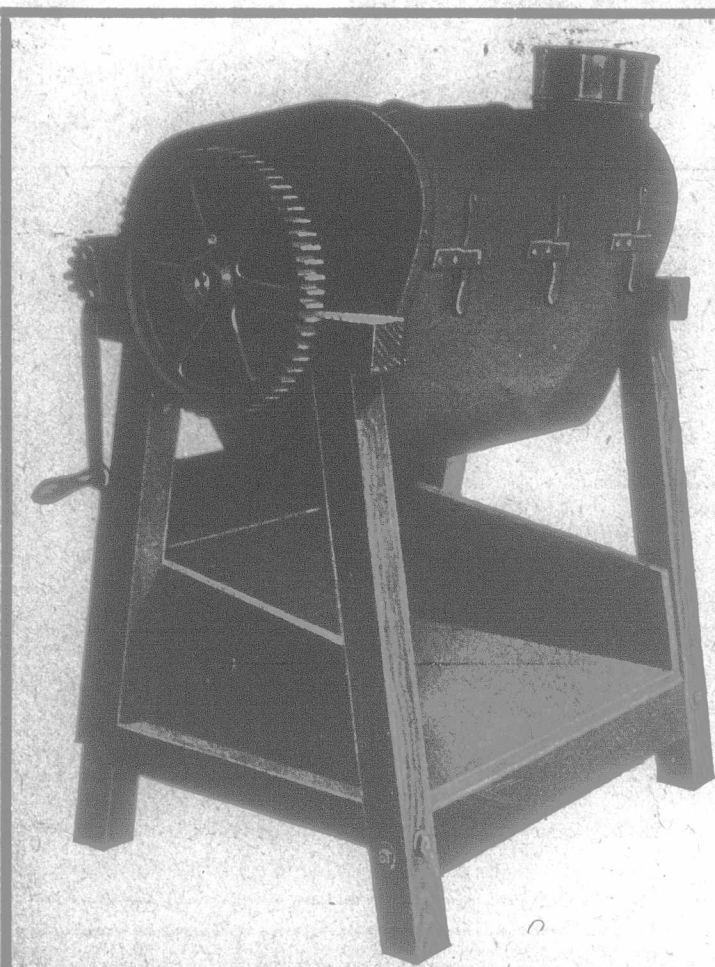
# Brantford Roofing

met all these requirements, and at the same time had a reputation for durability unknown to inferior roofing. When men who want the best buy **Brantford Roofing**—when it costs no more than ordinary roofing—when it is the **safe** roofing for you to invest in for the purpose of protecting your possessions, isn't it worth your while to know all you can about it? Write to-day for our big FREE book, containing samples and money-saving facts for your information.

Our new patented appliance for laying **Brantford Roofing** is worth investigating. Positively prevents buckling or expansion.

**Brantford Roofing Company, Limited, Brantford, Canada**

Warehouses: Toronto Montreal Winnipeg



## "Aylmer" Triangular Hand Mixers

The Most Practical, Thorough, Rapid and Handiest BATCH MIXER Made

**Mechanical Mixers are Best. They Save Time, Labor and Money**

Modern Methods Require Modern Machinery. "Aylmer" Mixers are Replacing the Mortar Box and Hoe. Batch Mixers Pay for Themselves in a Few Days. Just Figure the Time of Five or Six Men a Day Against the Time of One Man.

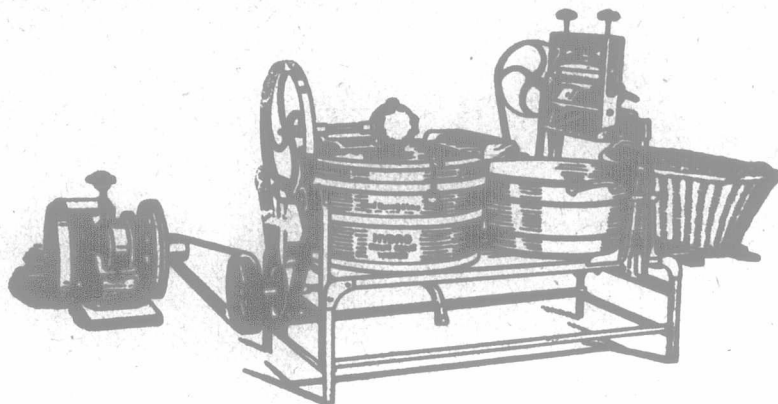
The Wetting Device consists of water tank, which is fastened to a stand on the frame. Connected with the tank is a half-inch pipe which runs through the journal and extends clear across the centre of the inside of the drum head. This pipe is perforated and the water is regulated by a half-inch globe valve. This method evenly distributes the water through the drum and evenness of moisture is assured.

**Specifications of Hand Mixer.**—Length of drum, 30 inches; circumference, 72 inches; diameter, 23 inches; height over all, 4 feet 4 inches; length over all, 4 feet 2 inches; capacity, 3 to 4 cubic feet; capacity of hopper bottom, two batches of 3 cubic feet each; speed, 15 revolutions per minute.

Price \$20.00. We Pay the Freight To any Railway Station in Ontario or Quebec. Write us at once if you wish further particulars.

**Aylmer Pump & Scale Co., Aylmer, Ont.**

Let the Gas Engine help your wife to do her washing



**H**AS it occurred to you that your other business partner—your good wife—is still using the out-of-date, back-aching methods of years ago—wearing herself out with the drudgery of the old-fashioned washday? If you have a gas engine on your farm you need a

*Maxwell*

## "HYDRO" BENCH WASHER

That little 1½ H.P. gas engine that works your churn and cream separator and operates your Pump Jack, Root Pulper and other small implements, will do the clothes washing and wringing for your wife—and do it quickly and satisfactorily. This Maxwell "Hydro" Power Bench Washer works equally well by gas power or by electricity, and can be driven by a one-

sixth H.P. motor. We make it in one, two and three tub machines, and the mechanism is as perfect as science can invent.

One of these machines would be a genuine boon to your wife when washday comes round. Make her a present of one—and let your gas or electric power help her to do her part of the work and lighten the burden of washday!

Write to-day for further particulars of this Maxwell "Hydro" Power Bench Washer.

MAXWELL'S LIMITED

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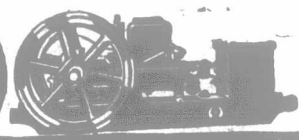
ST. MARY'S, ONT.

Johnny-on-the-Spot

"Johnny-on-the-Spot," on skids or on truck, will take care of all your chores—pumping, separating cream, pulping, churning, washing, etc. Stop wasting your time and energy in useless drudgery. Let "Johnny-on-the-Spot" do it—one of the famous Gilson "Goes Like Sixty" Line—a high quality engine at a low price. WRITE FOR CATALOGUE AND FULL PARTICULARS. ALL SIZES.

**Gilson Manufacturing Co**  
Limited  
2409 York St., Guelph, Ontario

\$47.50



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796 Shaughnessy Building, McGill Street, - MONTREAL

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JOSEPH RODGERS & SONS, LTD., Sheffield, Cutlery to His Majesty STEEL, PEECH & TOZER, LTD., Sheffield, Steel Axles, Tyres, Spring Steel, etc. THOS. GOLDSWORTHY & SONS, Manchester, Emery, Emery Cloth, etc. BURROUGHS & WATTS, LTD., London, Billiard Tables, etc. THOS. JENKINS & CO., Birmingham, Fuses and Fog Signals

### Bissell Steel Stone Boat



Stiff and strong with steel railing around the edges and steel runners underneath. 7 feet long by 2, 2½ or 3 feet wide. Bevel corners. A useful Farm Implement. Write for folder and prices.

T. E. BISSELL CO., LIMITED, Elora, Ont.

### Gilson Speed Governor



will save your cream separator from jars, shocks and the uneven speed of your engine. Starts separator slowly, runs any speed, and relieves separator of all vibration. Power can be cut off instantly. Send for catalogue. PRICE \$11.75.

Gilson Mfg. Co., Ltd., 2509 York St., Guelph, Ont.

## Melotte Cream Separator



Increases the butter yield 25% besides improving the quality.

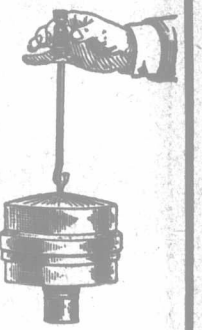
Saves time and labour, space and utensils.

A MILLION IN USE

You Can't Afford To Be Without a "MELOTTE"

THE "MELOTTE" BOWL

Unlike the top-heavy bowl in other makes the "Melotte" bowl hangs free on a ball-bearing spindle, hence the easy running of the machine and its consequent long life.



Write For Catalogue "G"

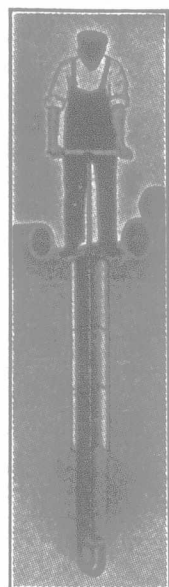
R. A. LISTER & CO., Limited

50-60 Stewart St.

TORONTO, - - - ONT.  
WINNIPEG, - - ST. JOHN, N.B.

## You Can Dig 40-foot Wells Quickly Through Any Soil

With Our Outfit At \$12.00



Write us to-day, and learn how you can start a profitable business, digging wells for others, on an investment of but \$12.00. Works faster and simpler than any other method. 100-foot outfits at \$25.00.

Write us for full information.

Canadian Warren Axe & Tool Co. Limited  
15 Carlton St., St. Catharines, Ontario

## IMPERIAL BAG HOLDER

Will hold any sized bag or sack at any height—can easily be carried about—will stand anywhere—made of steel—lasts a lifetime—satisfaction guaranteed or money refunded—\$3.00 each. Send to-day, or ask your dealer. Imperial Bag Holder and Machine Co., Lucknow, Ont.

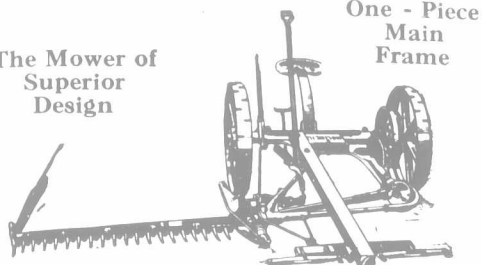
Agents wanted, wholesale and retail, in all unallotted territory. Splendid proposition for farmers, farmers' sons or other live men who can sell goods. Write quickly for terms and territory.

# JOHN DEERE FARM IMPLEMENTS

## Famous for Quality and Service

### JOHN DEERE-DAIN VERTICAL LIFT MOWER

The Mower of Superior Design



**Compensating Gears**—that remove strain from the bearings and transmit instead of consume power.

**Long Pitman Shaft**—that has all end thrust removed, hence has no need of thrust bearings.

**Alignment of Cutter Bar**—seldom necessary, but easily, quickly and positively made.

**Centering The Knives**—so that they always register perfectly in the guards, insuring perfect work.

**One - Piece Main Frame**

**Vertical Lift**—a lift so easy to operate that an ordinary boy handles it readily

**An Easy Foot Lift**—so easy it's surprising, especially after using other kinds.

**Adjustable Draft Hitch**—instantly set to remove side draft in the most severe conditions of work.

**Material and Workmanship**—of the known John Deere-Dain standard proven by service, reliable and trustworthy.

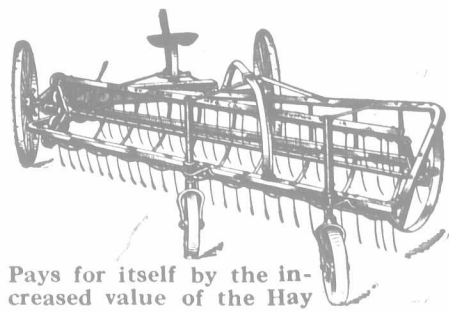
There is satisfaction in using high-grade implements.

John Deere implements are noted for their lasting qualities and for doing high-grade work.

They are the result of years of experience in manufacturing farm implements.

When you get a John Deere you are assured of high-grade material, workmanship and efficiency in the field.

### JOHN DEERE-DAIN SIDE DELIVERY RAKE



Pays for itself by the increased value of the Hay

A great labor saver. By its use hay is cured quicker and gotten out of the rain. Works around the field the same as the mower, delivering two swaths of grass upside down in a loose, continuous windrow where it will be exposed to the warm atmosphere. Hay cures evenly and without loss of quality or color.

**WELL BUILT.**  
Special design of frame—

handles greater amount of hay than imitation machines.

Teeth can be raised or lowered and set forward or back.

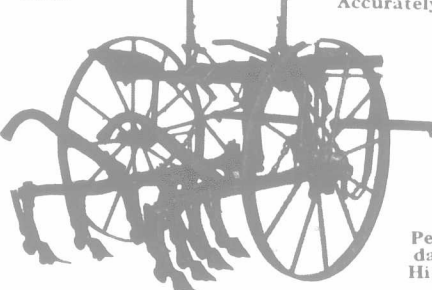
An easy-running, durable machine that will earn its cost many times over by making hay quicker and better than can be made in any other manner.

Write for special descriptive literature on this machine.

### JOHN DEERE "J-112" SEAT SHIFT CULTIVATOR

Rider Or Walker Automatic Seat Shift.

Horse - Lift Cultivates Accurately



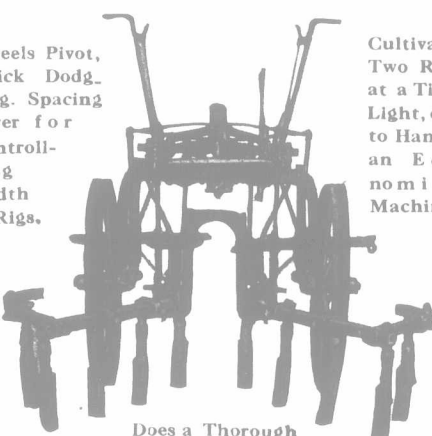
Pendant Hitch

Rigid, Adjustable Couplings, Convenient, Comfortable Dropseat. Write for fuller Description.

### JOHN DEERE "KA" TWO ROW CULTIVATOR

Wheels Pivot, Quick Dodging, Spacing Lever for Controlling Width of Rigs.

Cultivates Two Rows at a Time. Light, easy to Handle, an Economical Machine

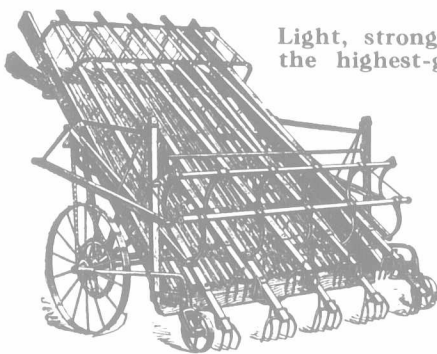


Does a Thorough Job

Outside shovels are on outside of wheels

### JOHN DEERE-DAIN HAY LOADER

Light, strong, and does the highest-grade work.



Wheels mounted underneath machine. Works close to fences or ditches.

Easiest running and most popular loader of the rake bar type.

Mounted entirely on wheels—rear wheels caster—no dragging around corners.

Working parts hammock mounted—swing freely back and forth like a pendulum.

Strokes of rake overlap—practically raking the ground over twice.

Hay is gathered from the swath full width of the machine.

Rakes are malleable—have a spring trip—spring back and avoid breakage when striking obstructions.

Elevator adjusts itself automatically to light and heavy hay.

Automatic-adjustable throat opening prevents choking.

No twisted or crossed chains, cog gears or long, crooked crank shafts.

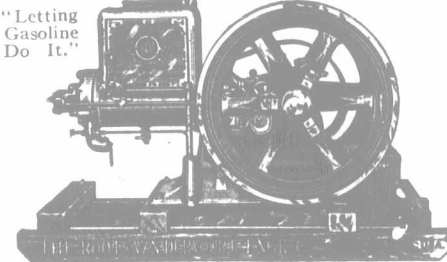
There are many other superior features on this loader that we will be glad to tell you about, if you will write us.

### "R & V. TRIUMPH" ENGINES

The engines that are safe around the house or buildings. Gasoline tank cast solid in sub-base. No danger of exploding.

Write for our free booklet:

"Letting Gasoline Do It."



THE ENGINES THAT MAKE HARD WORK EASIER

R & V Engines are good ones.

They are sold by the John Deere dealer doing business in your home town.

They are made with detachable cylinders in an expensive and superior design.

Main bearings are made of die-cast babbit. Replacement, if ever necessary, is very easy.

Triumph Engines are all fitted with fly-ball governors.

They give close and smooth speed regulation.

Oiling of piston is always sure—tube from oil passes close to hot water in hopper. Oil will not thicken even in coldest weather.

All fittings on R & V engines are of the highest grade.

Before you buy any kind of engine it will pay you to investigate the Triumph.

We'll be pleased to send you further information, FREE

JOHN DEERE PLOW CO. of Welland, Limited  
77-79 JARVIS STREET - TORONTO, ONTARIO

See your John Deere dealer about these machines

**Buchanan's Swivel Carrier**

For unloading Hay and all kinds of Grain.

For wood track, steel track, rod and cable track. Made entirely of malleable iron; no springs. Fitted with our patent leadlock 25,000 of our Haying Machines in use, is the best guarantee that we build them right.

Write for catalogue of Farmers Slings Stackers etc. and name of dealer near you who handles Buchanan's M.T. Buchanan & Co., Ingersoll, Ont.

We also manufacture Steel Cow Stalls and Positive Lock Cow Stanchions.

**PATENTS** TRADE MARKS AND DESIGNS PROCURED IN ALL COUNTRIES

Special attention given to Patent Litigation.

Pamphlet sent free on application

**Ridout & Maybee,** Crown Life Building, TORONTO

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Can be cured, not merely of the habit, but of the cause. The Arnott Institute has permanently restored natural speech to thousands—is doing it to-day. Write for full information and references to:

**THE ARNOTT INSTITUTE**  
Berlin Ontario, Canada

**USE MICA ROOFING**

For steep or flat roofs. Its great durability and can't-be-beat waterproof qualities, ranks it in the first place of ready roofings. It costs no more than an inferior material, and we ship direct from our factory to you in rolls of one square.

Send stamp for sample.

**HAMILTON MICA ROOFING COMPANY,**  
101 REBECCA STREET, HAMILTON, CANADA.

**Handing Out Horse Power**

The best lubricant for wagons is

**Mica Axle Grease**

Saves repairs and makes hard roads easy.

"It's the Mica that does it."

**THE IMPERIAL OIL CO., Limited**

Montreal Toronto St. John Halifax Winnipeg Vancouver

**No Lopsided Stones**

Every CLEVELAND GRINDSTONE is absolutely even in hardness all through, and sharpens knives, axes, hoes and cutter-bar blades exactly right.

Made of the only genuine Berea stone, finest in the world. Guaranteed to do satisfactory grinding, or your money back. We are the biggest grindstone makers in America. We have experts of 20 years' experience who select stones with the right grit for farm use. Let them select for you.

**CLEVELAND Grindstones**

Look at the fine stone shown below! It's the CLEVELAND "EMPIRE," a sturdy grinder to run by hand or gas engine. Ball-bearing. Strong frame and trough of cast iron that won't rust out. Genuine Berea stone, mounted on steel shaft, complete with 6-inch pulley. Will last a lifetime. Write for our great booklet, "The Grit that Grinds," and we'll give you the name of our nearest dealer. It will save you money. Write to:

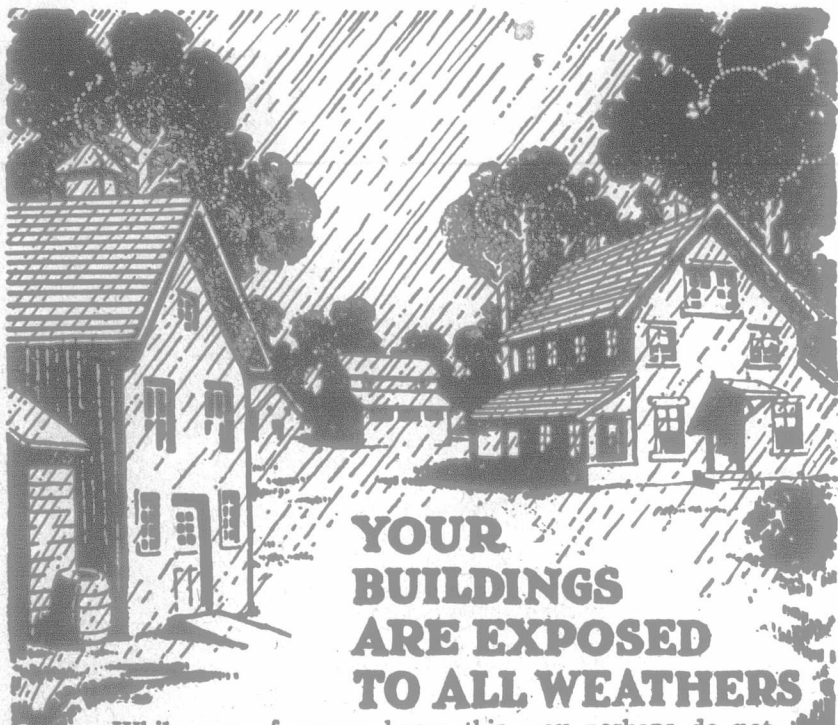
**THE CLEVELAND STONE CO.**  
1127 ELDER NEWS BLDG., CLEVELAND, OHIO

**"London" Cement Drain Tile Machine**

Makes all sizes of tile from 3 to 16 inches. Cement Drain Tile are here to stay. Large profits in the business. If interested, send for catalogue.

**London Concrete Machinery Co's Dept. B,**  
London, Ont.

Largest manufacturers of Concrete Machinery in Canada



**YOUR BUILDINGS ARE EXPOSED TO ALL WEATHERS**

While you of course know this, you perhaps do not realize that to secure for your home the greatest protection from the elements, you should use

**Brandram-Henderson's "English" Paint**

In it you will find the greatest wear combined with the beauty of perfect color and permanent effects. It gives absolute protection in all weathers, B-H "English" won't last forever, but it goes a step farther in this direction than any other paint, hence, is the most economical paint to use.

B-H "English" Paint both in white and in tints, is made according to this formula for its base: 70 per cent Brandram's B. B. Genuine White Lead, 30 per cent White Zinc, and guaranteed 100 per cent pure.

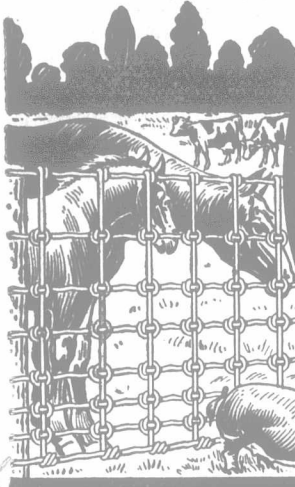
Send us your name today and get a beautiful Booklet free. It is full of valuable Painting Suggestions.



**BRANDRAM-HENDERSON LIMITED**

Montreal-Halifax-St. John-Toronto-Winnipeg

**PEERLESS-PERFECTION**



**Fencing for All Purposes**

There is scarcely a fence requirement that we cannot fill directly from our stock, no matter whether it be farm, poultry or ornamental fencing. We carry the largest stock of fencing and gate carried by any one company in the Dominion.

**Every Rod Fully Guaranteed**

PEERLESS Fencing is well known for its non-rusting qualities. Many of our customers have testified to this fact. Examine any piece of PEERLESS Fence in your neighborhood. Compare it with fences of any other make. You will find little or no rust on the PEERLESS. The longer you can protect a fence from rust just that much longer will it continue to stand up and do business. Send for our literature and learn about this high grade fence. Probably your dealer handles it. Dealers wanted in unassigned territory.

**Banwell Hoxie Wire Fence Co. Limited**  
WINNIPEG, MANITOBA  
HAMILTON, ONT.

**"ROSS" CADET RIFLE**



**EVERY FARMER NEEDS A GOOD RIFLE**

The ROSS Sporting Models, 303 and 280, are absolutely the best made, but for those who have no use for such high power arms, the new ROSS 22 Model, which was all "made" because the Government has adopted it officially for Cadet Corps, is a splendid all-round rifle.

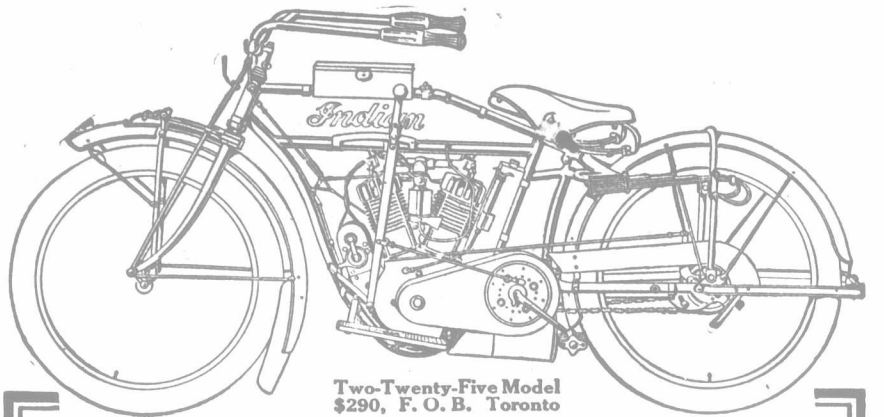
Strong and well-balanced, its barrel is accurate and its sights are adjustable. Fore-sight and peep rear sight, are wonderfully easy to line up and use.

This rifle uses either 22 short, long or 22 long rifle.

Its action is safe and quick. Easy to clean. The best rifle for the money to shoot.

If your dealer cannot supply you, write direct for illustrated literature.

**THE ROSS RIFLE COMPANY, Quebec**



Two-Twenty-Five Model \$290, F. O. B. Toronto

**Enjoy Going to Work by Riding an Indian!**

You can cut down by more than half the time you use up each day in traveling to and from your place of business. No hanging to straps—no standing in crowded cars. You can make this time, which is practically wasted, pay big dividends in health and pleasure, if you ride an

*Indian Motorcycle*

The Indian is swift, trustworthy and a wonderfully smooth-riding machine. You can travel with equal ease in city or country. A perfect system of controls enables you to open up to full speed on a clear road or throttle down to a walking pace in traffic, by merely a "twist of the wrist." No distance is too great, no hill too steep for the Indian's sturdy power.

The Cradle Spring Frame, exclusive on the Indian, assures absolute riding comfort. No jolts, no jars, no vibration. It costs but little to buy an Indian—little to keep one. A gallon of gasolene will take you 65 miles, a gallon of oil 400 miles.

The handsomely illustrated 1914 Catalog showing models priced at \$250 to \$420 will be sent Free upon request.

**HENDEE MANUFACTURING CO., 10 Mercer St., Toronto**  
Main Office and Factory, Springfield, Mass., U. S. A.  
(Largest Motorcycle Manufacturers in the World)

DIG YOUR DITCHES WITH

**C.X.L. Stumping Powder**

Costs less than half of shovel method. Ditches four to five rods long excavated in an instant. One man can do the work. No shoveling of dirt necessary.

The accompanying cuts were taken from photographs of a ditch blown with C. X. L. Explosives at Kolapore, Ontario.



Write for our booklet to-day. It tells you how this can be accomplished.

**BLASTERS WANTED**

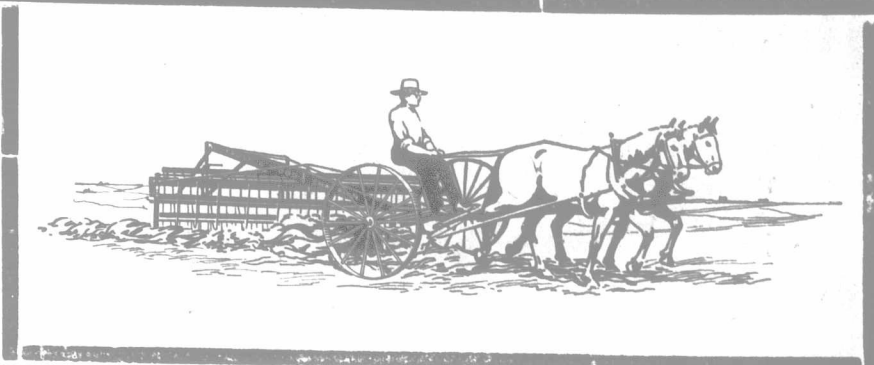
Many farmers prefer to hire blasters. Demand exceeds the supply.

Write for information.

**Canadian Explosives Limited, MONTREAL, QUEBEC VICTORIA, B. C.**

When writing advertisers, kindly mention "The Farmer's Advocate."

# Make Your Hay Crop The Easiest One To Harvest



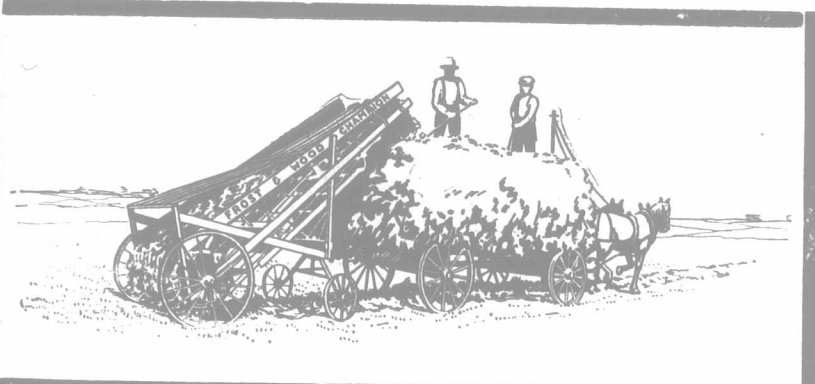
Harvesting the hay-crop by old-time methods is hard work. You can do away with at least 75% of the labor in hay-making, and increase the quality and nutritive value of your hay fully 15% by using the

## CHAMPION RAKE (Side-Delivery) AND HAYLOADER

They are an absolute necessity to every farmer who wants to make his hay crop yield the maximum returns.

The CHAMPION Side-Delivery RAKE will handle a wide swath. Makes a windrow parallel to the direction in which it travels. It leaves the hay loose and fluffy—in the best possible condition for even curing. Its action is also that of a Tedder.

The CHAMPION HAYLOADER is so simple in construction and positive in action, that it is far superior to any other type. The gathering-drum has no complicated pinions or gears. The slats are so secured to the apron, that they are less liable to cause damage by breakage than on other loaders. When broken, they cannot slip out of place. A wind-break prevents the hay from being blown off the apron, while the Loader can be uncoupled from a wagon without the driver leaving his seat.

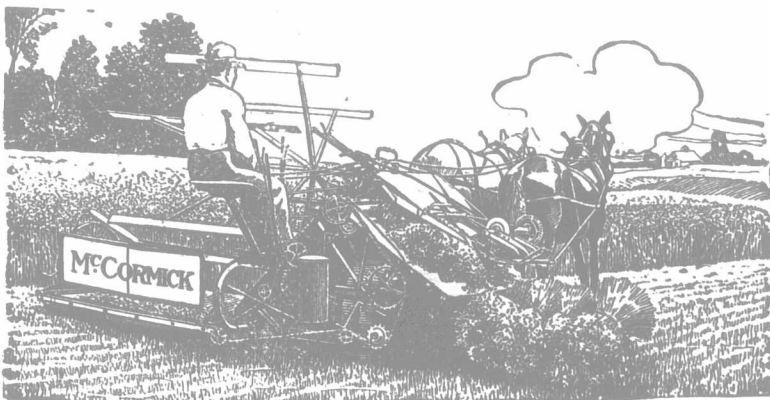


See these implements at your dealer's if you can. Or let us send you our complete Implement Catalog. Your name and address to our nearest Branch will bring it FREE.

**The FROST & WOOD CO., Limited**  
Smiths Falls, Ont., Montreal, Que., St. John, N.B.  
*Sold in Western Ontario and Western Canada By*

**The COCKSHUTT PLOW CO., Limited**  
Brantford, Winnipeg, Regina, Saskatoon, Calgary.

# McCormick Binders



MANY years of McCormick binder experience have brought out the strong points of the machine and enabled the builders to devise features that make the machine still more efficient and satisfactory. There are a number of such features on McCormick binders, features which insure a complete harvest of the grain, whether it be short, tall, standing, down, tangled or full of green undergrowth.

For Eastern Canadian fields the McCormick binder is built with a floating elevator which handles varying quantities of grain with equal facility. The binder guards are level with the bottom of the platform so that when the machine is tilted to cut close to the ground there is no ledge to catch stones and trash and push them ahead of the binder to clog the machine. These are features you will appreciate.

The McCormick local agent will show you the machine and demonstrate its good features to you. See him for catalogues and full information, or, write the nearest branch house.

**International Harvester Company of Canada, Ltd**

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

These machines are built at Hamilton, Ont.



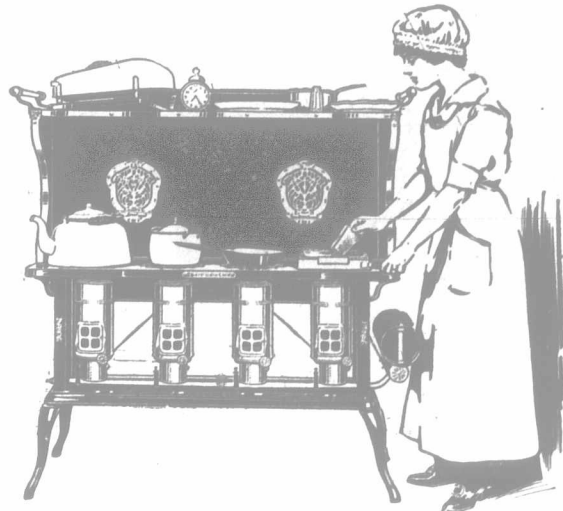
## YOU CAN SLEEP LATER

And still breakfast on time by using a

### New Perfection WICK BLUE FLAME Oil Cook-stove

No fires to kindle—no wood or coal to muss with. Just touch a match to the wick—then you have all the heat you want, when you want it. Lessens the labor in the kitchen. 1, 2, 3 and 4 burner sizes, and a new stove with Fireless Cooking Oven. All hardware and general stores.

Use Royalite Oil for Best Results



**THE IMPERIAL OIL CO., Limited**

Toronto Quebec Halifax Montreal  
St. John Winnipeg Vancouver



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Horse Races  
and other attractions

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AGRICULTURE  
HORTICULTURE  
MANUFACTURERS  
ART

C. P. R. return fare at single rate from all points west of Port Arthur.

Take advantage of this and visit British Columbia's Capital City.

For information and Prize Lists, apply to

**GEORGE SANGSTER**  
P.O. Box 705 Secretary  
VICTORIA, B. C.

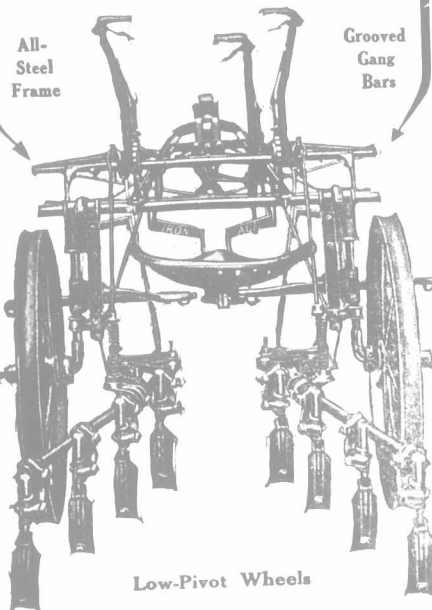
## Better Cultivation

Increases the yield. It retains the moisture in the ground and permits the chemical properties of the air to get to the roots. The size of the increase depends upon the number of times you cultivate and the kind of a machine you use.

# IRON AGE RIDING CULTIVATORS

Carry every possible adjustment of teeth, gangs, wheels, frame, etc., to care for all row crops in any kind of soil. They are built with high or low, pivot or fixed wheels, grooved, flat or zig-zag gang bars, for one or two rows and with many attachments for special work.

See them at your dealers and write for booklet, "Two-Horse Riding and Walking Cultivators."



Low-Pivot Wheels

The Bateman Wilkinson Co., Limited  
417 Symington Ave.  
TORONTO, ONTARIO

Please mention "The Farmer's Advocate."

### This "Alpha" Gas Engine Catalog

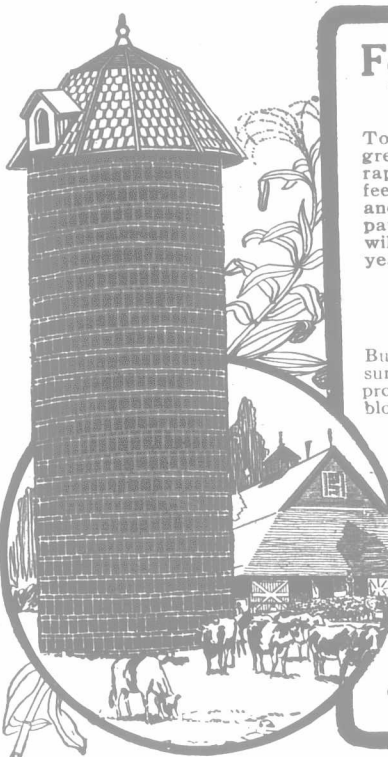
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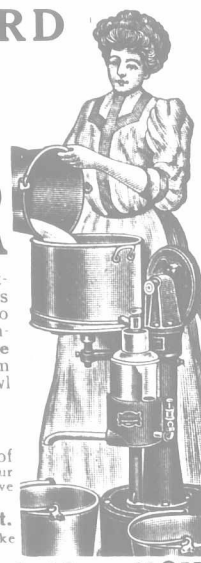
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# The Farmer's Advocate and Home Magazine

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No. 1132

## EDITORIAL

Corn and roots depend on cultivation.

Old weeds die hard, young ones succumb much more easily.

Harrow the sprouting corn. It will save labor later on.

Keep the cultivator going—cultivate! Cultivate! Cultivate!

A few swede turnips will add to the value of the ration for the cattle next winter. Sow them soon.

If you have a small piece of land that is clean and well cultivated try a little alfalfa sown alone.

Here is one to ponder over: "We are short on originality, long on imitators, and very short on stability."

Hot weather is here, flies are here, and unless the dairyman is careful his cream or milk will be tainted before delivered.

If possible arrange the pastures so that the stock may have access to shade. It means much towards their comfort.

Attend a few of the good old-fashioned picnics in your neighborhood. A day away from the farm now and then will inspire renewed effort.

Watch the methods of your neighbors, and see if there is not something in them that could be used to improve your own. If so do not hesitate to make use of them.

A good cow can soon become a scrub in the hands of a careless and indifferent owner, but a scrub cow cannot be made worthy of a stall in a good herd by the best of care.

Does your farm reflect prosperity? If not why not? As a general thing on an average fertile soil the farmer himself is the factor which determines whether or not good crops will be produced.

If Canada's farmers were as rich as some would make it appear, they would not have to take the dust of so many city-owned automobiles, and they would be given their due portion of the road on all occasions.

Now that the country's business with MacKenzie and Mann is settled for a few months, it should not take long for Parliament to wind up the people's affairs to be attended to this session.

The world moves toward peace. Had the Mexican situation developed a few years ago many bloody battles would have been fought already, and arbitration would never have been dreamed of. Formerly all things were fought out, now they are thought out.

### A Big Man's Job.

Do not despise your occupation as a farmer, no matter what is said or written. Farming is the biggest job in the world to-day, and has some of the best men in the world working towards its advancement. It has become a common saying that the farmer is not enough of a business man to successfully compete in these strenuous times, and some say that it is because of his lack of business acumen that he is not given more favors in a financial way by moneyed corporations. Be that as it may we venture to say that if a good many of the advisers—business men in "Big Business" were obliged to earn every dollar they make by the sweat of the brow and by live-and-let-live business principles, the farmer's lot would be easier to-day and he would have more cause to be looked upon by other professions as a business man. We said at the outset that agriculture is a big man's job, and so it is. With weeds and weather to contend against, scarcely any good farm labor available, and every other industry taking all possible advantage of the inability of the man who must work long hours with his hands six days a week, how can he find time to develop as he would like, the financial and social side of life, which give polish and insight into the ways of the world. Many of our financiers have not had as much ability as lies latent in many busy tillers of the soil, but they simply grasped the opportunity laid bare before their eyes, and once they got a little money they had the "whip hand" and more came at their bidding. They were big enough to amass great fortunes, but many could never have been successful farmers. The farmer's job is the biggest job in this country, and he who masters it achieves success as great as, and far more deserving than that of the millionaire who has manipulated other peoples money to enrich himself.

### The Fight Is On.

Out in the corn field, in the summer fallow, in the potato patch, in the roots and even in the garden there is a mustering of forces now going on which, if not checked, will work havoc with the crops on these fields, or will require an endless fight later on to exterminate them. The corn is just peeping through and the roots are not up yet, in fact may not have been sown, the summer fallow has had its first cultivation and has laid a few days, and over all there is a slight green cast, and where the land is stirred it shows full of countless white rootlets and sprouting plants originating from small seeds of the many weeds to which fertile soil is heir. Now is the time to commence the fight. Harrow the corn if it is not too big. If it is cultivate. Harrow the potatoes several times before they are up, and once just as they are coming through. Cultivate the summer fallow as often and as thoroughly as possible, and lastly hoe the garden that the table may be supplied throughout the summer with fresh vegetables and luscious fruits. This war on weeds is the most legitimate and important fight which now concerns farmers. It is more important than red coats, rifles, cannons and dreadnoughts. Good farmers look upon dirty crops as a disgrace, and know the yield is injured by weeds and lack of cultivation. The fight is on. With the help of weeders, harrows, seeders, cultivators, and hand hoes, you can win if you commence the fight before the enemy is entrenched. Will you?

### Helping Nature to Grow Her Crops.

Agriculture is a term with narrow significance to some, but as years go by and "knowledge comes" the outlook broadens into an expansive field without a visible horizon. A little difference in slope, a little difference in the character of the soil, and a few days longer growing season make one acre so situated as productive as an ordinary one-hundred-acre farm when the value of the output is considered. The systems of coaxing valuable crops from the soil, as practiced in the South-Western part of Ontario, emphasize the unlimited possibilities in the agricultural world, and what a change of conditions or diversion of effort will accomplish. Temperature and moisture are ignored under a system of artificial irrigation, and with acres of glass the young plants are reared until the summer comes, when they are set into the field where the crop is matured in a month or two. The sun's rays have been collected, stored and augmented with artificial heat, and the seed grows into the young plant much more quickly there than where nature has the whole responsibility. The growers in the early district are not indifferent to weather and climate, but they work in conjunction with nature and the union is a happy one.

### Sell Hay or Graze.

Scarcity of labor in Old Ontario and in many other parts of Canada has led farmers to seed down permanently a large proportion of their acreages. This, if not carried too far, will not likely greatly deplete the soil of its fertility, and if the right course is followed should in the end build it up. We are not strongly in favor of anything but a fairly short rotation of crops, but to the man without the necessary help and who is not disposed to hire it at ruling wages, far better is it for him to seed down than to only half work the farm under cultivation. There is a danger, however, that this practice may be unwisely increased by the good prices which have been obtained for hay, and the high price at which stocker and feeder cattle have sold recently. As the present situation stands there is a great incentive to grow hay for sale, sell it all off the place and bank the money. Indications point to a short crop of hay we are told in some of the Eastern counties of Ontario and in Western Quebec this year. This has caused growers to be figuring on the value of their hay crop already. A short crop means high prices, less labor and more net returns than a bigger crop sold at a low figure.

There is just a possibility that the hay-growing business may be overdone. There are sections where this crop has been the standby for years, but there are many fields taken out of the rotation which goes with stock farming and placed under hay because it is less labor, and the farmer believes that in the end it is more profitable. Will it be? This remains to be seen, but one thing is sure, that if the crop is continuously sold off and nothing is replaced the yields must diminish. Timothy is by no means easy on the soil, and an old meadow is largely timothy until it has been crowded out by the less valuable and more pestiferous Canadian blue grass, which gives small yields, runs the land down, and is the most fertile breeding ground for wire worms and white grubs yet discovered.

There is a partial, if not a complete, remedy for some of these sections, and that is graze the land. We do not propose to advocate wholesale

## The Farmer's Advocate AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN  
THE DOMINION.

PUBLISHED WEEKLY BY  
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JOHN WELD, MANAGER.

Agents for "The Farmer's Advocate and Home Journal,"  
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grazing as much of the land is far too valuable for this class of farming, but where the owner or renter is bent on seeding down he should either keep enough cows to raise young stock to graze on it or should purchase cattle. At the present time with stockers so high the former would be the better plan. When stockers may be had at a reasonable price some could be picked up for grazing, and it looks as though there would be no trouble in selling them either as feeders or finished beef for some years to come. Some of the hay would be necessary to feed the cows or store cattle over winter, and thus at least a part of the crop would be returned to the land which grew it. This is not as good as returning it all, but "a half loaf is better than no bread," and selling hay continuously year after year must eventually lead to the no-bread stage. If you must "farm easy," keep stock at least during the summer that your land may not become impoverished and force you to work in your old age.

### Nature's Diary.

By A. B. Klugh, M.A.

One of the very daintiest of all the flowers found in our woods is the Star-flower, with its white, six-pointed star on its delicate pedicel and whorl of six pointed leaves. This species may be readily identified from our illustration, which is from a photograph taken in the New Brunswick woods.

Another very pretty flower which is abundant in the Maritime Provinces is the Bluets. The flowers are either pale blue or white with yellow centres, and are shown in fig. 2.

Canada has a rather sparse reptilian fauna, and the largest and most powerful reptile we have is the Snapping Turtle. It inhabits slow-running, muddy rivers and streams, ponds and marshes. The name of this species is derived from its method of defending itself by snapping at its aggressor. In snapping the rapidity with which the head is lurched forward rivals the dexterity of the rattlesnake. So quick is the movement that the eye is barely able to follow

it. Backed up by a pair of keen-edged, cutting mandibles and jaw muscles of tremendous power, the stroke of one of these reptiles is decidedly dangerous. As in their haunts these turtles lie embedded in the mud at the bottom of the water, the rapid movements of the head and neck are important in the capture of fish which form a large portion of their food. Beside fish the Snapping Turtle eats young water-fowl, which it stalks beneath the surface of the water, seizes by a quick dart of the jaws and pulls down to drown and be devoured. It never feeds unless under water, and if it captures prey on the bank it retreats into the water to devour it. In fact it seems unable to swallow unless under water.

In the early summer the female leaves the water and prowls about seeking for a place to deposit her eggs. She often wanders some



Fig. 1—Star Flower.

distance from the water, and selecting a suitable spot, scoops away the earth to form a hollow into which she crawls and moves about until the loose earth falls over her. Thus she is hidden until the eggs, which usually number about two dozen, are deposited. As she crawls forth she rears up, and the earth which has been on her back falls over and covers the eggs. The eggs are white, perfectly round, and have a thin shell. At my summer cottage at Puslinch Lake I had a garden on the bank of the lake, and Snapping Turtles found the loose soil of the garden so much to their liking that they were always digging up my young tomato plants in excavating their nests.

Turtles are wonderfully tenacious of life, and an excised heart of one of these reptiles will beat for hours after removal from the body as long as it is kept moist.

A fish which has a very wide range in Canada is the Lake Trout or Namaycush, often also termed Salmon Trout. It is found in most of the large lakes, and in many of the smaller ones, from New Brunswick to Vancouver Island and northward to Labrador, Hudson Bay and Alaska. It is the largest of the Trouts, reaching a length



Fig. 2—Bluets.

of several feet, and a weight of sixty to a hundred and twenty-five pounds, though the average weight is about fifteen pounds. This species is omnivorous in its feeding habits, but its principal food appears to be soft-finned fishes.

The Lake Trout spawns on the reefs and lives, at other times, in deep water. The spawning season begins in Lake Superior late in September, in Lake Huron the height of the spawning season is in early November, and spawning continues into December. The spawning grounds are on the reefs of "honeycomb" rock, ten to fifteen miles off shore, and in water from six to a hundred and twenty feet deep. The usual number of eggs laid by one individual is about 6000. By anglers it is usually taken by troll-

ing with a spoon or a live minnow, and by commercial fishermen with gill-nets or pound-nets.

The Lake Trout fisheries of the Great Lakes are exceeded in value only by those of the Whitefish. At one time this species was so abundant that it did not command a price at all commensurate with its edible qualities, but of late years, as the catches have decreased, the prices have soared. This is one of the fish which has yielded most satisfactory results with artificial propagation, and the Government hatcheries have succeeded in arresting the depletion of the supply.

## THE HORSE.

If you have a real good colt lay plans to exhibit him next fall.

Hard-worked horses at grass must have grain, or they will fail in condition.

It seldom pays to leave an inferior colt for a stallion. Better castrate him.

Grade stallions must go in a few years. As far as your breeding operations are concerned they should be gone now.

We all like to see filly foals, but a horse colt of the right kind will make a profitable gelding if he is not good enough for stud purposes.

A good horse race still draws a crowd. Fifteen thousand were present at the Woodbine on opening day, and twelve thousand on the second day.

A good feed of grass is a great system renovator, and every horse should have a chance to build up his condition by being allowed a free run on pasture for a time.

If the right kind of a stallion does not come close to the farm, it will pay to lose a little time from the regular farm work and take the mare to a really good horse.

Get the mare bred as soon as possible now that the warm weather is here. It is sometimes not advisable to be in too big a hurry earlier on when the weather is cold, as more difficulty is generally experienced in getting the mares with foal.

### Indigestion in Horses—III.

Spasmodic Colic.—Probably the most common form of indigestion in horses is that form commonly known as "spasmodic colic." Some horses are particularly predisposed to it. It consists in a spasmodic contraction of a portion or portions of the muscular coats of the intestines, usually of the small intestine. It is not uncommon for the muscular fibres of the neck of the bladder to be also involved. The disease is usually due to improper food or improper feeding, sudden changes of diet, exhaustion from over work, particularly if associated with long fasting. A drink of cold water may cause it, especially if the animal be exhausted by a long journey or several hours hard work, or be excessively watered. Some horses are particularly predisposed to attacks, such as those in which there are concretions of different kinds in the intestines, abscesses in the mesentery, parasites in the intestines, ulcers in the stomach or intestines, cancer or chronic thickening of the intestinal walls; also those with congenitally or acquired weakness of the digestive powers or disease of the digestive glands.

While simple spasmodic colic is a comparatively unimportant disease which readily yields to treatment in most cases, fatal cases have occurred, the patient dying from exhaustion, and a post mortem revealing no lesions or chronic disease of the digestive tract, the only abnormal conditions being a rigid contraction of small portions of the small intestine. Repeated attacks of colicky pains occurring in a horse without apparent cause indicate some structural change in the digestive organs, in many cases the presence of the concretions or tumors in the intestines. If such be present and are movable, we are justified in assuming that they occasionally, by change of position, occlude the canal, and thereby check the backward passage of faecal matter, check peristaltic motion and cause severe pain. In such cases the violent movements of the animal are likely to dislodge the obstruction, reopen the canal and consequently relieve pain. In other cases the obstruction does not become dislodged, the case does not yield to treatment, and after several hours inflammation of the bowels results and causes death. A post mortem reveals the



presence of a calculus or tumor. The presence of tumors is more frequently found in aged grey horses, they being what are known as melanotic tumors which occur in grey or cream-colored horses, never in dark-colored animals. In such cases the presence of obstructions can only be suspected until after death, as the attacks may be due to other causes. In the latter cases they may be prevented by tonics, good care and careful feeding, but in the former nothing can be done that will prevent them. A horse that is predisposed to colic from any cause is a very undesirable animal to own, as sooner or later it is highly probable that an attack will prove fatal. Some horses suffer from colic if allowed water shortly after a meal, others if given a change of food, others if fed certain kinds of food, etc. When such a tendency to attacks is noticed they can usually be prevented by exercising care not to subject the horse to the conditions that cause the attacks.

**Symptoms.**—These usually appear suddenly and are very violent and alarming. The patient suddenly expresses pain by pawing, kicking at the abdomen, throwing himself down violently, rolling and struggling, jumping suddenly to his feet, probably repeating these actions, and in other cases shaking himself, becoming quiet and commencing to eat as though nothing were wrong. After a variable interval of ease the pains recur, sometimes in an aggravated and sometimes in a modified form. During the attacks the pulse is full and frequent, but during the intervals of ease it is normal. They may occur again and again, the periods of pain and of ease being of various duration, until the animal is relieved by treatment or spontaneous cure or the disease becomes complicated by inflammatory action, which condition usually terminates fatally. At the commencement of an attack faeces are often voided frequently and in small quantities, and may be either soft or hard and there is often noticed frequent voiding of small quantities of urine. In other cases there is noticed frequent but ineffectual attempts to urinate. These symptoms indicate that the neck of the bladder is involved in the spasms, and as a consequence urine cannot be voided. This leads the uninitiated to conclude that the horse is suffering from disease of the organs of urination. This idea is very common. The owner or driver decides that there is an obstruction in the urinary passage, and proceeds to remove it by giving a dose of sweet spirits of nitre. This usually is followed by relief, but it does not act as is generally supposed. It will not remove obstructions, but it relieves the spasm of the neck of the bladder and hence allows escape of urine, after which the horse will probably show no more pain. How often do we hear a man telling about his horse being very sick from "a stoppage of his water"; he gave him a dose of sweet nitre, he urinated and was "all right." The fact being, the dose relieved the contraction, the horse became "all right" and then urinated. If there be an occlusion of the urinary passage from other causes than that mentioned the treatment named would make matters worse, because the drug, as well as being antispasmodic increases the activity of the kidneys but does not remove obstructions, hence it causes an increased flow of urine into the bladder, but does not remove the obstruction that prevents its escape from the organ. During the paroxysms of colic the pulse becomes altered as stated, the respirations are also accelerated and in some cases perspiration is profuse. During the intervals of ease these functions become normal. The symptoms, while usually short, are generally more violent and alarming than those of more serious intestinal diseases.

**Treatment.**—In many cases a spontaneous cure takes place without treatment in from a few minutes to an hour or two, but it is advisable to administer an antispasmodic dose in all cases. The following is a favorite and effective colic drench, viz., 1½ fluid oz. each of laudanum, tincture of belladonna and sweet spirits of nitre in a pint of cold water. This being the dose for an ordinary-sized horse, young or small animals or very large animals being given less or more according to conditions. Instead of this we may give 1 to 2 oz. of chloral hydrate or 2 or 3 fluid drams of chlorform in a pint of cold water. The patient should be placed in a roomy, comfortable box stall or paddock and carefully watched to prevent him from hurting himself or becoming fast. It is good practice to give a rectal injection of a couple of gallons of warm, soapy water. If relief be not apparent in an hour the dose should be repeated. If this fails to give relief we may suspect a more serious case than ordinary spasmodic colic or that the disease has become complicated, and where practicable the services of a veterinarian should be procured. If professional assistance cannot be procured the owner will repeat the dose as needed, but not at more frequent intervals than one hour, and treat complications as best he can. If bloating occur he should treat as for flatulent colic, which will be considered in a future issue. It is good practice to ad-

minister a light purgative as 6 to 7 drams aloes and 2 drams ginger after the acute symptoms have been allayed. WHIP.

**Conditioning and Preparing Horses for Show.**

Many of our readers will be contemplating exhibiting at some of the summer and fall exhibitions, and while it is yet early in the season it is not too early to commence laying plans and educating the horses for the contest to come. Accordingly the following article from "The Farmer and Stockbreeder" will be read with interest.

There are two things needful to win at shows. The first, of course, is that the horse must be good enough for the company he meets, but a second essential is that the animal should be well brought out. It must be got into proper show condition, and trained to deport itself favorably in the show-ring. Condition in particular counts for much in the eyes of the judges, so much so that unless a horse has been suitably conditioned its chances of success are much depreciated, or even may be wholly discounted if the company be strong. Every season, it happens time and again, when two horses run one another closely in point of merit, that it is superior condition that proves the deciding factor in turning the scales in favor of the one horse.

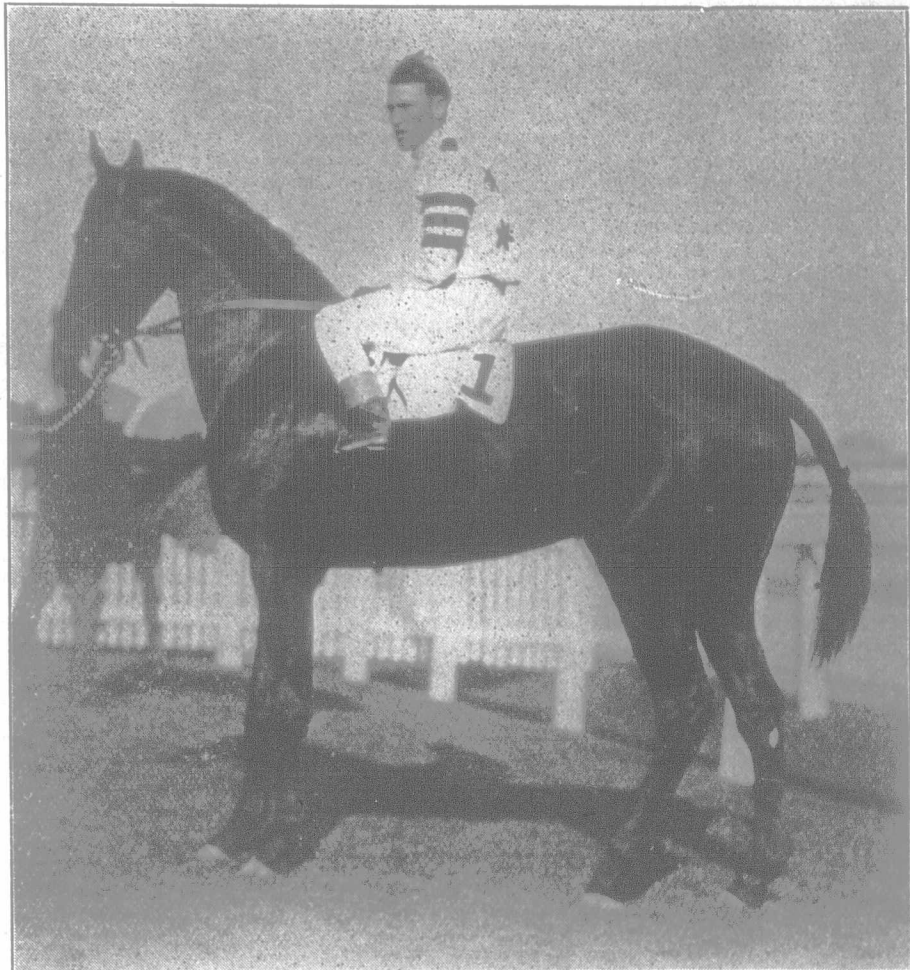
To bring a horse into show condition demands considerable skill and much painstaking atten-

an unduly bulky diet and do not get enough grain. It will be apparent that a horse properly conditioned for show requires to be in a distinctly better-fleshed condition than is the case with horses in hard-working condition, which is as often as not signalized by a certain spare or lean look. The lesson, therefore, is that while a horse being prepared for the show-ring must be liberally fed on grain, etc., we do not want to work the animal at all severely, as that would work off some of the flesh which is aimed at producing.

In some measure the feeding is regulated by the individuality of the horse, and it certainly will not answer to feed and treat all horses alike on a cut-and-dried system. For example, if an animal happens to be light in the barrel and deficient in depth of rib or girth, it will be desirable that it should carry correspondingly more flesh but just stopping short of actual fatness, with a view to obscuring these deficiencies as far as may be, as the greater the horse's condition is the less will the faults obtrude themselves. On the other hand, if the conformation is very good and there is a notably deep and well-sprung rib, these favorable points will be brought out all the more conspicuously if we do not have the horse specially fleshy, so that the framework may not be unduly covered up. These and kindred details need to be carefully studied in the preparation for show if the most is to be made of the horse's chances.

The relatively heavy graining which is called for to produce show condition, combined with the

fact that anything approaching real hard work is to be avoided, and only exercise in moderation is admissible, must necessarily tend to a heating effect. It consequently becomes incumbent specially to guard against any harmful results liable to accrue in this direction, or as the result of the high and full-blooded condition which is being maintained. To this end it is all important that frequent bran mashes should be included in the dietary. These have a cooling and highly beneficial action, while green food, may also advantageously be given as a regular feature, but of course in strict moderation, for too much would tend to enlarge the barrel unduly, besides impairing the bloom of the condition. Beans are to be eschewed, as being too heating and liable to fill the legs. Usually oats



**Beehive.**

The winner of the 1914 King's Plate. Jockey Guy Burns up. This colt has entered in eight races, and has as many firsts to his credit. Owned by Harry Giddings, Oakville.

alone will fully suffice, in the way of grain, for bringing a horse into good show form. If, however, the addition of some stronger food is deemed desirable, peas will best meet the requirements of the case, but they should be supplied only quite sparingly. These will engender plenty of spirit and mettle, though, ordinarily, high feeding on oats will do all that is needful in this direction. However, here, as in other respects, one must study a horse's individuality and feed accordingly.

The use of condiments and condition powders is optional. Many set great store by these, but it will be found that they can generally be dispensed with, and powders and drugs do not have a wholesome effect when regularly used, though a course of alterative powders will prove useful for stimulating the appetite, should this flag, as it frequently does when a horse is highly fed. For the purpose of improving the coat there is nothing better than linseed meal, of which a little may with advantage be regularly given, as it is a good conditioning food and withal wholesome. A little linseed oil occasionally may also be recommended, to assist the action of the bowels, excepting with horses of a washy nature, and which consequently are inclined to scour under excitement. When a horse is poor or has been lying out in the rough, it will need some extra pushing on to get him into good condition. Apart from having them thoroughly trained

or schooled to carry themselves well and move with balance, one great secret of getting horses to show to the best advantage in the ring is to have them above themselves, so that they may be in mettlesome mood. Never will a horse move with more vigor and stride out more gaily than when in the spirited condition resulting from his being kept above himself or "full of beans," as grooms describe it. This is attained by dint of high feeding and abstention from too much exercise or work. Particularly when a horse is of soft constitution and none to stout-hearted will it be desirable to restrict the exercise, merely giving him enough to maintain him in a healthy state and prevent him from becoming excessively frisky.

In regard to the exercise, this should chiefly be of a slow order, consisting of plenty of walking, interspersed with bouts of trotting at a medium pace. Such slow exercise will help to fetch up the muscle as effectually as fast work for show purposes, if enough is given, and has the merit of not taking very much out of the horse. It will be well to exercise the animal plentifully in a circle so that he becomes accustomed to moving around in the show-ring. A good form of exercise consists in lungeing, a side rein, fastened to the roller, being worn on the outside, in order to keep the head straight, or we may put these side reins on both sides. Their effect will be to assist in improving the carriage and promoting balance of movement.

A horse being conditioned for show cannot be groomed and strapped enough. Grooming should be done at any rate twice a day, and quite two hours daily should be spent on this, preferably longer. Besides putting the requisite gloss and bloom on the coat, real hard strapping promotes the health, which is a very important consideration in view of the fact that the horse is being highly fed, and not getting over-much work. A sleek coat is obtained if the horse is left unclipped in the winter, though, of course, it may not be feasible to dispense with clipping during that season, but if it can be conveniently managed, then it will certainly be best to refrain from having the winter coat on a horse intended to be shown clipped. An essential part of the conditioning process is to keep the horses rugged in the stable, this being indispensable to ensure a glossy coat and a proper bloom of condition. It will be well also to bandage the legs regularly, so as to keep them fine, the high feeding necessary entailing a tendency for the legs to fill.

If this undesirable feature should make itself at all apparent, daily hand rubbing of the back sinews and fetlock joints is to be recommended. Mane and tail must receive careful attention, and if there seems any danger of the horse rubbing the latter, a tail guard must be habitually worn in the stable to prevent it from becoming disfigured.

## LIVE STOCK.

### Does Pedigree Save the Scrub?

A writer in an American journal recently stated that he believed that registration and the high prices which are often paid for pure-bred animals induced breeders to keep all the offspring for breeding purposes to the detriment of the breed and live-stock breeding generally. It may be that many animals with a pedigree behind them and with very little individuality to back them up are retained in the herd or sold to outside buyers for breeding purposes which would be better turned off to the butcher or put in harness to do the farm work. There is a strong tendency in the direction which the American stated, but all breeders cannot be accused of following this practice. Many of the best live stock men in the country if an inferior animal is bred in the herd discard that cull rather than have the name of stock injured. He would not offer it for sale for breeding purposes because his reputation depends upon the class of stock he turns out, and an inferior individual, no matter what kind of a pedigree is behind it is not a safe proposition as a breeder. All the importance of the breeding value of stock does not hinge upon pedigree. Individuality must take first place and this, backed up by the best of blood lines found in the highest class of pedigrees serves to eliminate as far as possible the chances of undesirable variations occurring in live stock breeding. The breeder buying stock to build up a herd does not take it for granted that because the animal has a pedigree that it is the animal he wants, and, while in some cases where operations are carried on, on a small scale and the breeder is not endeavoring to establish a reputation or is not a first-class judge of quality he may retain all the inferior individuals for breeding and may offer them for sale at a fairly long price to prospective buyers, this is not generally the case. In these days most breeders, or those contemplating commencing the business, understand fully what they want and they will not purchase inferior animals at high prices. The animal plus the

pedigree is the measure of value. Neither is complete without the other, but pedigree without individuality is valueless.

### Stomach Worms in Sheep.

Chief among the evils that visit the sheep-fold and exact an annual toll is the stomach worm. The young lamb is most susceptible to its attacks, and fatality is most pronounced in the immature part of the flock. It should not be confused with the grub worm which lodges in the head, or the tape worm accompanied by a rapacious appetite and wasting of flesh. They are different in their source, habits and effects, and require different treatment. But all three are similar in that they attack a flock while in an unhealthy condition, or when running on fields that have pastured sheep for years previous. The sheep runs become infested with all kinds of vermin, and require changing more often perhaps than do the pasture fields for other kinds of live stock.

The presence of the stomach worm is evidenced by a loss of flesh, general weakness, dullness, failing appetite, thirst and diarrhoea, but a more certain diagnosis may be made after a post mortem examination. The fourth stomach is the habitat of these worms, and after the contents are allowed to settle the parasites may be seen in the liquid. They resemble little snakes, but are only from  $\frac{1}{4}$  to  $1\frac{1}{4}$  inches long, and about as thick as an ordinary pin.

The insect comes to maturity and lays its eggs in the stomach. They pass out with the intestinal contents and begin hatching in a few days after which they entrench themselves on blades of grass or other objects, and so enforce themselves with covering that they will endure considerable heat or cold. The grazing sheep take them into the stomach where they attach themselves to the walls. From this position they give off certain poisons, appropriate some of the food stuffs of the stomach, and suck quantities of blood from the stomach walls. It is usually the flock that is in a run-down condition that suffers most, and it may easily be seen that healthy sheep following those affected with the worm have little chance of escape. However, one shepherd reports that where the young flock received extra rations of roots, grain and oil-cake they seemed invulnerable to the worm. And it is noticeable that well-nourished sheep, especially those receiving the extras mentioned, are usually quite free from infestation. Vetches, too, constitute a preventive in some shepherds' minds, and other stock raisers claim they have restored weakened animals to health on fields of vetches.

Shepherds in the United States have recommended gasoline as a curing lotion, and Canadian flockmen have used it with considerable success. The treatment that has been most popular and effective is the administration of gasoline on three successive days. The evening before the first is given the animals are shut up without feed or water, and are dosed about ten o'clock the next morning. Three hours later they are allowed feed and water, and at night are again shut up without feed or water. The

next morning the second dose is given, and the third morning the third dose. The treatment before and after the dosing is the same in each case. The size of the dose is: For lambs,  $\frac{1}{2}$  ounce; for sheep  $\frac{1}{4}$  ounce. The dose for each animal is measured and mixed separately, and mixed in raw linseed oil, milk or flaxseed tea, and administered by means of a bottle or drenching tube. Gasoline should not be given in water. Great care should be used in drenching to avoid the entrance of the liquid into the lungs.

### Washing Sheep.

Illustrated in this issue is the practice of washing sheep, a practice which is declining in popularity amongst sheep breeders in this country, most of whom prefer to clip their sheep earlier in the season, and dispose of the wool in the unwashed state.

Not so very many years ago nearly every sheep in the country was washed before being shorn. During the last days of May or early in June the entire flock was driven away to the nearest stream, penned on the banks while two or three men did the washing, and the small boys of the family fished and enjoyed the sport. Now in travelling through the country one notices that most of the flocks are shorn in March or April and are turned out to grass without fleece. We believe this is the better practice as the shearing is accomplished when work is not pressing, and the sheep are not forced to carry a heavy fleece which has served them as a winter protection through the hot and often sultry days of early summer. We have experienced just now a hot spell which would cause sheep with heavy fleeces to suffer considerably.

However, there are those who still cling to the practice of washing, and little can be said against it, provided it is done properly and done early enough in the season. We would not think of leaving it later than the first week in June, as the weather becomes hotter and hotter and the sheep suffer more and more every day, and besides there is likely to be a considerable loss of wool, as with the heat and the loosening fleece sheep rub a good deal of it out. Not very many have as handy a vat for washing as that seen in the illustration. A convenient stream with what the small boys call a "deep hole" where the water is four or five feet deep with a gradual sloping bank is the best place to wash the sheep. It is also advisable where possible to select a spot where the water runs away very rapidly, because if a large number of sheep is being washed it becomes very greasy and roily and does not do the work as thoroughly as it should. It is not enough to plunge the sheep into the water and allow them to swim around for a very short space of time and not work the dirt out of the wool. Sheep should be turned upon their backs and the wool on the bellies thoroughly worked with a rake or comb for the purpose or by hand; then the sheep should be turned over and the back and sides done the same. It is not well to keep them in the water very long. Get them out as soon as possible, and handle them carefully while in the water. It



Washing Sheep.

This practice is not as common in this country as formerly.

is well for both man and beast that a very warm day be chosen for the operation, and care must be taken not to plunge the sheep into the cold water when they are warm as they generally are immediately after a long drive to the washing place. Pen them up if possible under a shady tree at the edge of the bank, and allow them to cool down before commencing to wash. After the sheep have been washed they should be driven steadily home, and left about a week before being shorn. It is not well to leave them too long, as if this is done very little good comes of washing, as they will collect more dirt and the wool will not be clean. Seven or eight days, or at the most ten, should be enough time to elapse between washing and shearing, and during this time sheep should be kept out on a clean meadow where there is little danger of them getting dirty.

While on this subject it might be well to mention that all signs are pointing toward a little more interest in the wool trade. Our Government is endeavoring to further co-operation among sheep breeders in the production of a better grade of wool. Grading of wool is coming, and those who produce the highest quality are sure to reap the richest rewards. This does not mean that unwashed wool may not be of high quality, but it does mean that all kinds and classes of wool should not be mixed together, and if they are the grower will eventually have to pay the penalty in a lower price and a slower sale. It will pay every wool producer to carefully look after his wool on the home place. Keep it clean, grade it according to quality and insist upon selling it that way. Of course, where only a few sheep are kept it will be necessary for the breeders in the district to get together and grade their wool together in order to get the best prices from the dealers.

**Unemployed and the Price of Meat.**

A rather significant statement was made in our last week's Toronto market report. It was stated that now that most of those who, during the winter months, were out of work had found employment, the wholesale butchers were killing and selling more beef. Beef has been rather high in price, and men not getting a regular wage could not afford to buy it. To create the greatest possible demand it is necessary that all the people—not only the well-to-do, but also the laboring class—eat meat. Very few stock feeders have stopped to think that it made any difference to them whether or not men were unemployed in the cities, but if we are to take our market report as evidence it would seem that such has a direct bearing on the demand for certain articles produced on the farm. It is rather important then that all our people have work, and it is equally important that they be educated to eat more good wholesome meat and that the price of this article of diet should not be unduly boosted beyond their reach. In the end the producer of meat would not gain much by abnormally high prices, as these would drive thousands of customers to the use of other classes of food which would ultimately appreciably lower the price of meats, and once the consumers had become accustomed to other foods they would not readily come back to the meat.

**The Old Steer Goes.**

The Board of Directors of the International Live Stock Exposition have decided that after the show of 1914 all classes for three-year-old steers in the car-load division will be abandoned. Carcasses of three-year-old show cattle have proven quite unprofitable, and if we mistake not in a good many cases these cattle have proven unprofitable to their feeders. Conditions of the meat trade are changing rapidly. Feeders and breeders are beginning to realize that the sooner they can get their cattle on the market the more money will go down into their pockets as profit. In this country nothing like the percentage of three-year-olds and older steers may be found in the stalls during feeding periods as was the case only a few years ago. The feeder has found out that it is unprofitable to keep these steers around, and is making an effort to get all his cattle marketed at two years of age or younger. It is a good step forward on the part of the International Exposition to eliminate these older steers.

Exhibitions of this kind are supposed to be educative, and we are glad to know that the largest live-stock show in America is keeping abreast of the times. There is no use of encouraging feeders to keep their cattle to such an age by making exhibits of them when the largest margin of profit is made from earlier finishing. Other show managements might follow suit.

**English Show Season Starts.**

The English outdoor show season has fairly been sent on its way with a round of brilliant opening exhibitions at Otley, where the Wharfedale re-union was held; at Weston-Super-Mare, where the Somerset County Show was decided; and at Newark, where Midland breeders had a chance to feel their ways for the rest of the year with their young stock.

Shorthorns were a conspicuous feature of the Wharfedale Show. Gold medal for Bulls went to J. H. Maden's five-year-old roan, Montrave Ethling, a high quality Royal Victory Bull, and the reserve was found in a beautiful white yearling of George Harrison's, Hindley Gold by Starlight. Yearling bulls were extraordinarily well-grown, and Capt. Behren's Swinton Sardonyx and St. Clipper—both of them by Swinton Saint—took the two leading awards in that order. The female classes were very satisfactory. The pick was Bankfields Belle, the elder of a pair shown by Richard Cornelius, a Cheshire exhibitor. Both are by that celebrated sire, Village Beau. Bankfields Belle had the advantage in age over her herd companion, Jewel, and secured gold medal, the latter being reserve. Mr. Maden was also a successful exhibitor in the female section, getting a first prize with his Lord Canning calf, Rockcliffe Gem 5th, seconds in the two-year-old and over three-year-old classes, and a third.

Yorkshire-bred Shires are yearly growing more quality-like. In two-year-olds winner was a Tatton Dray King Colt, Lincoln Dray King, which has big limbs and feet, moves well, and is owned by D. Collins. He took the S.H.S. medal. Robert A. Yerburch's Sister Mary won the Mare medal, and headed the Any Age Gelding or Mare class. She is a mare of immense weight, well ribbed and roomy, and was never shown in better bloom.

At the Somerset Show, a great feature is made of Devon cattle. Sam Kidner's old bull Stockleigh Goldfinder won his class, and a fine two-year-old male was Sir Gilbert Will's Northmoor Vanguard with capital butts and a strong and even back. The best of the females was undoubtedly I. H. Alford's Horridge Belle, a massive, yet compact two-year-old heifer, carrying a lovely coat.

In Shorthorns at this West Country Show, all the prizes go to strangers and W. M. Cazalet, a Kent breeder won classes with the cow Cairncosh Tilt, Butterfly 64th, and Augusta 114th, a beautiful trio, hard to fault. In Guernseys, J. F. Remnant, M.P., did the chief winning, and in Jerseys Mrs. Evelyn (Surrey), Mrs. McIntosh (Essex), and Mr. A. Miller-Hallett were leading winners.

At Newark Show the Forshaws did well in Shires; F. B. Wilkinson and Geo. Harrison in Shorthorns, and John Evens in Lincoln Reds. The Duke of Portland won a prize in the pig department.

Ireland has not yet started her outdoor shows. But a lot of good work is being done to help the poor farmer over there who cares to venture in good-bred stock. A horse-breeding scheme is now carried out in every county in Ireland but Meath, where the County Council rejected it on account of the refusal of the Department to have Clydesdale stallions registered for the county. The total number of stallions registered in Ireland for the purpose of assisting stock breeding last year was 393 as compared with 396 in 1912 and 296 in 1909. They were made up of 181 blood horses, 106 half-breed, 75 Clydesdale, 19 Shire, and 12 Irish Draught stallions. At 229 local exhibitions 5,624 mares were passed as sound and suitable for nominations to be served by registered stallions. The sum of £10,000 was granted from the Development Fund for the purchase of stallions, nominations of mares, and the Irish Draught Horse Scheme, in addition to funds supplied by the Department. The cattle-breeding scheme was adopted in every county. For it the amount expended in 1913 was £18,082. The number of bulls for which premiums were awarded was 900, of which 592 were Shorthorns, 185 Aberdeen-Angus, 67 Hereford, and 56 other breeds. Similar though smaller schemes were carried out for sheep and pigs.

G. T. BURROWS.  
London, Eng.

Stockmen turning their stock on the pasture in the spring should see that they are free from vermin, such as lice and ticks. Anything of this kind that annoys the stock during the summer will decrease appreciably the summer gains. The sheep lambs upon which the ticks live after the young have been shorn, should be dipped and thoroughly freed from this pest. Cattle should be treated with insect powder or lotions prepared especially for the purpose, and every precaution taken that the stock will not be tormented by vermin that the farmer can easily free them from. Flies will give them trouble enough.

**THE FARM.**

**Farm Engineering.**  
**WATER WHEELS.**

In general water wheels may be classified as gravity, impulse and reaction wheels. The gravity type are operated directly by the weight of the falling water exerted through its falling distance. Such are the breast and overshot wheels represented diagrammatically in Figs. 1 and 2. They are used solely in small plants,

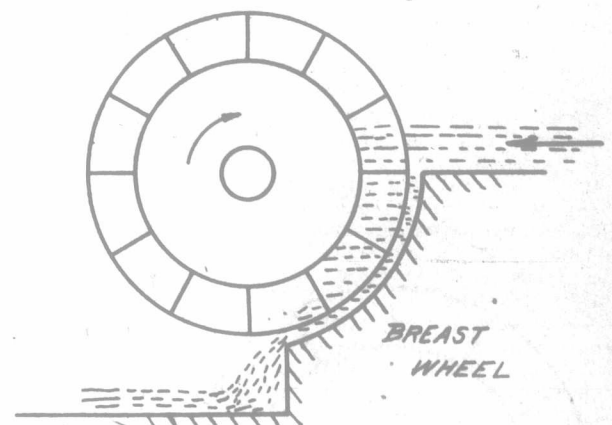


Fig. 1.

and are not very efficient under normal conditions. The efficiency of the breast wheel ranges from 55 to 65 per cent., and that of the overshot from 65 to 75 per cent. under the best conditions. If the fall in a stream is but a few feet, the breast wheel is quite generally used. A slightly greater fall, say 6 or 8 feet, usually results in the choice of the overshot wheel. In the latter form the total force exerted by the water is due to its weight and it is a true

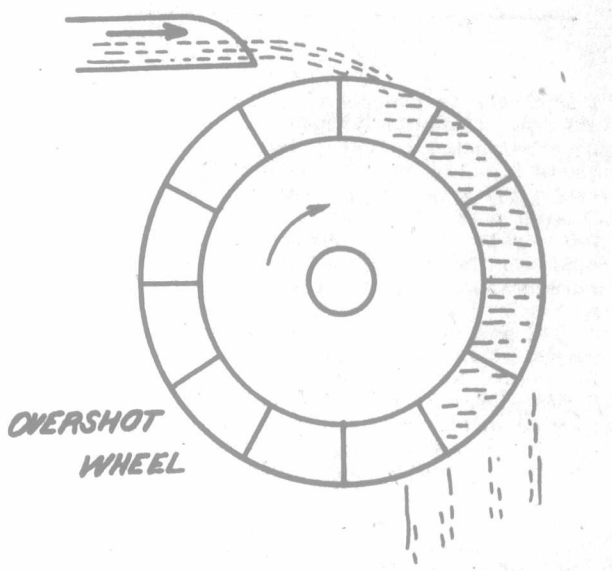


Fig. 2.

gravity type, but in the breast wheel some of the energy due to the velocity of the water supplied is utilized.

These gravity wheels are advocated for slight falls of from 3 to 8 feet, or thereabouts, for small installations largely because of the fact that small turbines for slight falls are apt to be of low grade materials and poor design. The gravity wheels are much easier made and installed. In fact frequently overshot wheels are

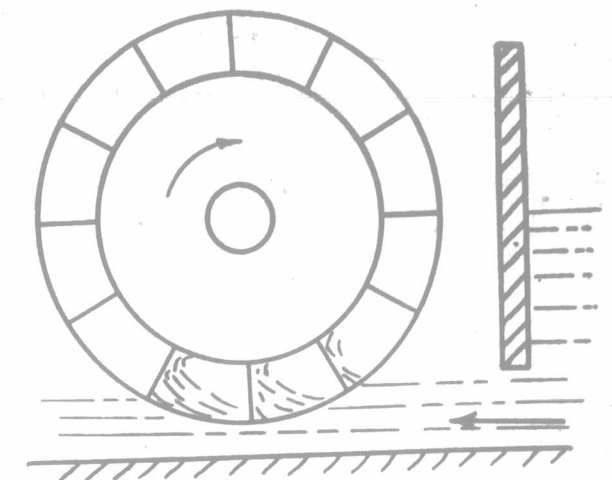


Fig. 3.

constructed by the farmer himself. This may be any form of wheel with buckets on the circumference so that water will be retained and the weight thereof give a turning motion to the wheel. Even board wheels of rough design and construction will give considerable power.

Impulse wheels are those in which the total energy supplied is from the movement of the running water. The type of undershot wheel in Fig. 3 and the Pelton wheel of Fig. 4 are examples of this class. While the undershot wheel is perhaps the least efficient of all water wheels (from 25 per cent. to 45 per cent. under good conditions), the Pelton is the most efficient. Under favorable conditions the latter reaches 85 per cent., and in all intelligent installations the efficiency runs well over 75 per cent.

A running stream having slight fall furnishes opportunity for the common mill wheel of the undershot type. Where used, the stream is narrowed to about the width of the wheel, thus giving the wheel the benefit of all of the water in the stream running at a somewhat greater velocity than in the open stream. This type is rapidly disappearing altogether, and is not to be recommended if other types may be installed.

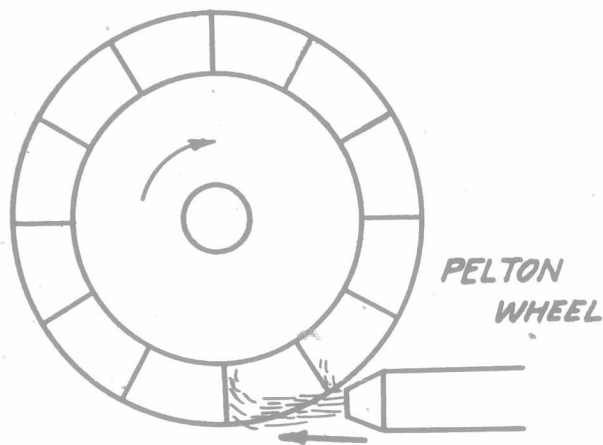


Fig. 4.

Frequently in order to use another type as, for example, the breast wheel, a dam would need to be constructed to get a sufficient fall of water. There is a low breast wheel which is a cross between the breast wheel and the undershot. This is used where the maximum fall is slight, say a foot or two. The delivery of the water is not opposite the shaft but is somewhat below, being at times even as low as the nozzle of the Pelton wheel in Fig. 4.

The Pelton wheel is increasing in use, and together with the turbine is universally installed in plants of any considerable size. For all heads above 8 or 10 feet this wheel equals the turbine in efficiency. For heads less than 20 to 25 feet, however, the amount of water used by the Pelton makes the turbine somewhat more

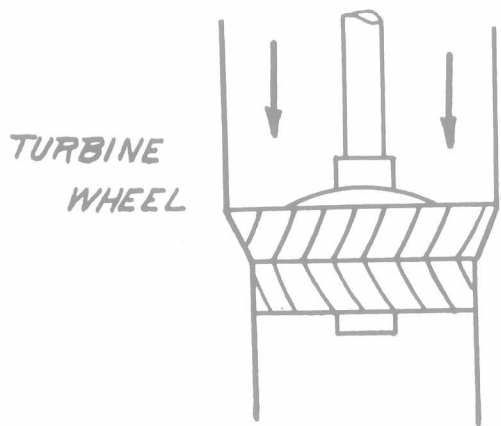


Fig. 5.

economical. Above twenty feet there is little choice from efficiency or cost of operation until high heads of from 100 to 2,500 feet are reached. With these there can be little choice between the two, the Pelton being greatly superior. The principle of operation makes a high head desirable with the Pelton wheel. The higher the head the less the amount of water required to develop a given power. Hence, the lower the cost of installation for provision need be made to convey only a slight amount of water.

The power of a Pelton wheel depends solely upon the head and the amount of water supplied to the wheel. The diameter of the wheel merely determines the speed at which it runs, and to some extent is dependent upon mechanical consideration. With great quantities of water flowing

from the nozzle, the buckets against which the water strikes must be large enough for the full benefit of the issuing stream, and thus the wheel must be large enough to carry the buckets.

Most of the so-called water motors are of the Pelton type. They run in price from \$30 for the little 6-inch motor weighing 50 pounds up to \$275 for the 24-inch size weighing 860 pounds.

Turbines are of the reaction class of wheels, the reaction of the water as it leaves the vanes furnishing the "kick" which propels the wheel. In this type of wheel in distinction from all others shown the water acts around the entire circumference at once. The efficiency of the wheel depends largely upon the design and carefulness of installation. It may be anywhere from 55 per cent. up to 85 per cent. It is best adapted for low and moderate heads, especially where the head varies greatly from time to time. It operates at higher speeds than the other wheels, and will perform its work even if set below the level of the tail water. Low heads and large quantities of water cause the adoption of the turbine.

Nova Scotia.

R. P. CLARKSON.

### The Farrow Cow and Others.

By Peter McArthur.

I don't know that I ever sat down to write an article when feeling so full of improving thoughts as I do at this blessed minute. A lot of things have happened lately, and all of them were of the kind that seem designed "To point a moral and adorn a tale." To begin with, the boy and I were working in the garden yesterday, when I happened to notice some dark object on the ground between two of the cows that were lying down in the pasture, up near the woods. I ventured the opinion that it was a newly arrived and not unexpected calf. The boy took a look and said it was a stone. I could not remember having seen a stone in that place, but I was busy and did not stop to argue the matter.



Sowing Turnips.

The turnip is still of great importance in Canada's agriculture.

After a while I chanced to look up again and saw that all the cattle in the pasture had gathered around the dark object on the ground and were sniffing at it. Once more I ventured the opinion that it was a calf.

"But that is not where the cows were when you were looking at them before."

"Why, yes it is."

"I am sure it isn't."

"Don't talk nonsense. Don't you think I can remember where the cows were when I was looking at them? And that calf or whatever it is, is lying exactly where it was when I spoke to you about it."

"But it was not there they were at all. And now I can see the stone that was between them as clear as can be."

My temper was rising but I looked and saw a stone about ten rods to the east of the object I was looking at. A couple of questions brought out the fact that we had not been looking at the same couple of cows, nor at the same object on the ground. That explained everything, and while we were settling the matter the dark object I had been looking at got up and began to stagger around on wobbly legs. It was certainly a calf. But you can see the lesson to be learned from the incident, can't you? Before you get into a red-hot argument with anyone be sure that you are

talking about the same thing. Thus endeth the first lesson.

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The calf belonged to the purposeful and strong-minded red cow to whom I have referred at various times in this correspondence as "Fenceviewer I." She is the one that ate a tubful of corn last spring and got away with it without turning a hair. Since then her predatory exploits have been so numerous that she has been re-named, and is now known as "Calamity." Of course she was very proud of her calf, and mooded solicitously when we approached to examine it. But strange to say she was not nearly so excited about it as her oldest daughter, a quiet and hitherto well-behaved cow that has been milking all winter and is farrow this season. Judging from her actions she had adopted the new calf, and had taken out adoption papers before we arrived on the scene. She ran around and bawled and acted silly as soon as I began to push the calf towards the barn. By the way, pushing a young calf that braces its front legs and insists on lying down every couple of rods while its real mother and an idiotic farrow cow are threatening to run over you all the time, is a job that is rather trying on the temper. But I finally got it through the gate, and proceeded to push it along towards the drive-shed where I could get it out of sight. The mother objected, of course, and bawled her protest as loudly and ineffectively as a loyal Opposition when a Government is putting through a railway subsidy. But the farrow cow made as much noise as a self-elected reformer. She stood by the gate and pumped up basso-profundo bawls from her second or lower stomach. Every time she bawled she humped her back and moved her tail up and down like the handle of an old-fashioned wooden pump. But I paid no attention to her. I could not see where her feelings were being lacerated, and I kept right on picking up the calf and setting him on his wobbly legs and pushing him towards the drive-shed. But just as I reached the door and the calf had

gone down again I was startled by a yell behind me. I turned hastily, just in time to see the farrow cow in the act of shredding herself through a tight barbed wire fence. I was too late to head her off, and, as I watched her struggles, I felt that when she got through she would be of no use for anything but Hamburg steak, and I reflected with some satisfaction that the new onions in the garden are ready to be used for a meat garnish. But when she got through she did not sink on the earth in a pile of little pieces as I expected, but ran like a deer, bawling like a fog-horn, to where a calf that had been weaned the day before was bleating for its mother. By this time Calamity had become excited and was threatening to follow her fool daughter through the barbed wire fence. And the cow whose calf had been taken the day before also went into hysterics. I don't believe there was ever so much noise and excitement on the farm as there was for the next few minutes. The boy kept Calamity from going through the fence, and I opened the door of the drive-shed and hurled the calf under the buggy, where it lay down once more with a little grunt of satisfaction. Then I went after the farrow cow to see how much she was damaged. It seems incredible, but there was not a scratch visible on her silly carcass. Now, will some learned man please explain how that could be possible. Whenever I try to go through a barbed wire fence, even though I go at it with the greatest circumspection and care, the barbs catch in my hat, coat, trousers and stockings, and even catch the rag on my sore finger—not to mention the bias patches they tear out of the most sensitive skin in Middlesex County. And yet that cow ripped through that fence by brute force and didn't get a scratch that was visible to the naked eye. Before I got peace restored on the place I had to capture each cow and lead her into the stable. I had to put in the three of them before they would stop threatening to commit hari-kari on the barbed wire fence. As I think over the occurrence the lesson that sticks in my mind is that the farrow cow was wonderfully like a professional reformer. Though her interests were not involved in any way she made a bigger disturbance and got more thoroughly

worked up than the cow that was really bereaved. And nobody thanked her or gave her a word of praise. I admit that this lesson came home to me with great force.

Though I got the cows in the stable the excitement was by no means over. The cow that had lost her calf the day before is a kicker by nature, but after getting excited she simply refused to be touched when milking time came around. When she was being broken in last year sympathetic readers sent me many receipts for conquering a kicking cow but in the state she was in none of them was of any use. Though I could keep her from kicking by tying a strap around her hind legs and another around her body in front of the udder, my friends neglected to tell what to do when a cow tries to lie down on top of the milker. But just when I was in the thick of this trouble an experienced milker came along and gave me a plan that was so simple that it seemed silly. I took off my leg and body straps and then took a rope and looped it loosely across the cow's back in front of the hip bones and then tied it behind so that the rope rested loosely against the knees. There was no pressure of any kind. The rope simply hung around her rump and lay against her hind legs. This plan had not been recommended by any of my correspondents, but it worked like a charm. She would lift her feet but would not kick and she gradually quieted down. Apparently that loose rope gave her much the same feeling that we humans have when our clothes begin to come undone in some public place. We do not feel like putting forth violent efforts of any kind. Anyway it was the conquering scheme and I pass it along to all who may be having trouble with kicking cows. And the lesson to be learned from that is—Pshaw! I forget just what lesson I was going to draw from the kicking cow.

## THE DAIRY.

### How Cheddar Cheese is Made in England.

In the making of Cheddar Cheese, perhaps the first essential is pure, sweet milk of good quality; and to be pure and sweet, not only must the dairy and its surroundings be scrupulously clean, and no part of it used, as is so often the case, as a larder or store for vegetables, paraffin, etc., but the cowhouses must be well cleaned and ventilated. Above all, the udders and teats of the cows, and the hands of the milkers, must be thoroughly washed before milking, and the greatest care taken to prevent any impurities getting into the milk. This cannot be insisted upon too strongly, as there is not the slightest doubt but that large quantities of milk are thus irretrievably ruined for the making of fine cheese before coming into the dairy, and it is only by the most strict and constant supervision that this can be prevented.

As soon as drawn, the milk is taken to a receiver, about eighteen inches square, placed in the most convenient position outside the dairy, so that by a short open shoot it can pass through the wall into the cheese-tub, being thoroughly strained in the passage, thus doing away with the necessity of the milkers entering the dairy. The evening's milk can generally remain in the cheese-tub during the night. When the temperature is high, an occasional stirring is useful; but in damp, hot, moist weather, or during electrical disturbances, some of it should be placed in other vessels.

In the morning the first duty of the careful cheese-maker is to examine the condition of the night's milk, and, if acidity be perceptible, the morning's milk only should be heated; as a rule this is advisable from about the middle of June to the end of August. The night's milk is skimmed, and the cream put in with the milk to be heated in a tin vessel called a warmer, surrounded by hot water in the open boiler, referred to as being in the boiler house, and in which the whey is also heated. Particular care must be taken not to exceed a temperature of 95°. By this the united milk should be raised to 84°; but by the end of June it can be reduced to 82°. A little sour whey may be added in the earlier and later months, but its regular use cannot be recommended.

When annatto is used, it must be well stirred in, and sufficient rennet added to coagulate the milk in sixty minutes. The thorough mixing of the milk and rennet is very important, and should occupy about ten minutes, not only for its thorough incorporation, but also to prevent the cream rising to the surface. The tub should then be covered over till coagulation is complete, in order to guard against a too rapid fall in the

temperature of the milk. By the time the curd will break clean over a tubular thermometer, the delicate operation of breaking should begin. This is facilitated by the use of a thin knife, long enough to reach the bottom of the tub, for cutting the curd into squares of about two inches.

It should then be left a few minutes to harden and for the whey to separate, when, by the use of a shovel-breaker, the splitting of the curd in its own grain commences. This at first must be done with the greatest caution, or the whey will get white and loss of quality ensue; but speed should increase as the curd hardens—always taking care that it is regularly broken, and not smashed, until it is the size of a pea, and the whey of a greenish hue; the time of this operation depends somewhat upon the quantity dealt with, but it should take from fifty to sixty minutes. The mass is now allowed to settle for ten minutes, when, with a syphon sufficient whey is drawn off, which, when heated to not more than 130°, would raise the whole to 90°. During the application of this whey the curd must be well stirred and mixed. A further rest of ten minutes takes place, when enough whey is drawn off for heating to 130°, and that in the tub lowered till it only covers the curd by about two inches. The heated whey is poured in a small stream over the curd, the operator taking the utmost care that the whole mass is thoroughly broken up and incorporated with it, the thermometer being frequently used, until it stands at 100°, the limit desired; but the stirring must be continued until the curd becomes shotty and is disposed to sink, the whey showing above it clear and green. This operation takes from ten to thirty minutes, but if the curd does not harden sufficiently fast and the temperature falls quickly, it would be best to add more hot whey so as to retain the heat at 100°.

The curd now rests for 10 minutes, or if it is sufficiently acid, a shorter period will do, when all the whey is let off, and the curd piled as high as possible in the centre of the tub. Then all the crumbs are carefully washed down, strained, and placed on top of the mound. Cover and keep it warm with cloths until it has become sufficiently solid to cut into large pieces. These should be so coagulated as to be turned over without breaking. And the process of cutting, piling up, changing, and so on, goes on for another short time, until the curd presents a rich, dry, mellow, solid appearance and a perceptible amount of acidity has been developed. This you can discover by taste and smell. Then it is next ground, and should look a ragged, solid curd, dry yet greasy and easy to crumble in pieces. A fine, clean, dry salt must be used at the rate of 2½ pounds per 112 pounds of curd, and the salt must be thoroughly mixed. At this point the temperature of the curd should be about 70°. It should be put into the vat or mould, lined with a thin cloth, large enough to cover the cheese, placed in the press, where it has a pressure of about twenty hundredweight, and allowed to remain there until next morning, when the cloth is changed, the portion of the cheese inverted and replaced in the press for another twenty-four hours. Rub a little fat over the surface to soften it and prevent cracks. Then cover it with muslin and replace the cheese in the press for forty-eight hours more. Next, bandage it and take it to the warm cheese-room, where it must be turned daily for six weeks. Next take it to the cooler cheese-room and turn it over every day until it is three months old. Then you can turn it over once in five days until you want to sell it.

London, Eng.

G. T. BURROWS.

### The Difference in Cows.

Editor "The Farmer's Advocate":

What doth it profit a farmer if he do all the labor and lose all the profit? A member of the family of a Wellington County, Ontario, farmer showed me a report containing two names, the same as my own, and asked me if I knew the parties. "Yes" said I, after looking at the names on the report. This was the monthly report of the Guelph Creamery, for April, in which are published the names of the twelve patrons, who send the greatest number of pounds of butter-fat to the creamery. I read the report, and saw the names of five other farmers of the same locality and the same post office, making seven out of the twelve. Now the fact, that one little corner of one very small county was able to take more than one half in a competition where fifteen or twenty counties were competing, set me thinking and looking for a reason. My thoughts were like those of a famous duelist about to engage in deadly conflict, who said: "Thoughts on thoughts, a countless throng, rushed chasing countless thoughts along." My first thoughts were, why did Wellington with its

numerous large townships of well-watered fertile soil, not win a majority, or at least a few of those twelve places of honor? My next thoughts were of the Experimental Farm, right in the very midst of the county, where students flock from the uttermost parts of the earth, to learn what branch of agriculture is the most profitable, and how best to pursue it. One would think that Wellington farmers would derive more benefit from those experiments and suggestions than would farmers of any other county in Canada, being, as it were, almost under the verandah of the institution.

The O.A.C. is perhaps like the prophet that was not without honor except in his own country. I am sure I can tell the reader why Wellington did not and why Elgin did secure seven out of the twelve highest positions in the report of that vast creamery which, in all probability taps from fifteen to twenty counties. With respect to Wellington County the land is not at fault; nor are the buildings, nor the feeding. What then can it be? I'll venture that it is the class of cows generally kept. One Nichol Township farmer told me that his cows bring him about three dollars each per month, while fresh. I have also learned, from various sources that three to five dollars each per month is pretty general throughout the county. Likewise the farmers of Elgin trudged and plodded along for many years in the same old rut with poor cows—all short-milkers but long-feeders. I was one of Elgin's blind-followers of the blind for about twenty years. We now thank the agricultural papers, Experimental Stations, etc., for teaching us what to do and how to do it? Upon their suggestions we disposed of our three to five-dollar-a-month cows, supplanting them with cows which produce ten to twenty dollars a month in cheese or cream and leave us vast quantities of whey or separated milk for further profit. This is how Elgin patrons, all from the one neighborhood, won seven points out of twelve in the Roll of Honor of the Guelph Creamery. Of these seven winners, N. H. McConley, Roy Nevill and Cecil Nevill have herds of pure-bred Holsteins and all the rest have herds of first-class, high-grade Holsteins, what they think is the best breed of dairy cattle on the Continent.

Here is a statement of the proceeds from one cow, owned by Roy Nevill, for 1913:

Cream sold at Guelph, .....	\$150.00
Estimated value of separated milk, .....	40.00
Calf (male) sold for .....	100.00
<b>Total .....</b>	<b>\$290.00</b>

This cow is doing even better this year. How long will farmers continue to exhaust their energy with poor instruments (poor cows) when the good are easily secured.

Wellington Co., Ont. JAMES NEVILL.

### Whole-Milk vs. Cream-Gathering Creamery.

Editor "The Farmer's Advocate":

The following quotation from a well-known Produce Trade Journal revives the old controversy as to the relative merit of whole-milk and cream-gathering forms of creameries:

"Dealers complain of the quality of Eastern townships creamery butter being deprived of its former excellence through the use of hand separators by the farmers who make their own cream and send it to the factory. Consequently the butter is made from cream supplied by a number of farmers, no two of which contribute the same quality of cream. Consequently it is impossible for the factorymen to turn out the same uniform quality of butter as when the milk was taken to the factory, and the makers skimmed their own cream."

The foregoing statement, combined with the remarks of a large dealer in Toronto, with whom we were talking recently, and who said that he was handling the butter from the only whole-milk creamery in Western Ontario, and found it always of good quality, hence he could pay a higher price for the butter, again raises the question as to whether or not we are adopting a wise policy in the conducting of the creamery business, more particularly in Western Ontario. In some parts of the Western portion of Ontario, the cow population is fairly large. If we can combine this with a system of good roads, it is the conviction of the writer that we shall go back to the whole-milk creamery, particularly if we are compelled to find an export outlet for our surplus butter.

It is all very well to theorize about a farmer being able to take care of a small amount of cream better than he can a large volume of milk, and that there is no reason why he should not be able to deliver cream to a creamery in better

condition than he can milk, the fact is, he is not doing so. Experience in every country of the world where the two systems have been tried, has been the same—a change from whole-milk to cream-gathering creamery has resulted in an inferior quality of butter. The Danes tried cream-collecting in a few places but soon dropped it, because the butter could not compete with that made in the separator creameries.

If it were not for the expense of hauling the whole-milk to the creamery, and returning the skim-milk to the farm, it would be a good policy to revert to the milk-delivery plan in the older-established dairy districts. Our own experience is that the quality of butter made has not been nearly so good since the change from milk to cream delivery. The only thing that saves our reputation is pasteurization. If it were not for pasteurization, we could not make a uniformly good quality of butter under a system of cream delivery two or three times a week. No class of men are so interested, or should be so much concerned in Good Roads as Dairymen, including dairy farmers, creamery and cheesery owners. It might be a good policy to levy a tax on every pound of butter or cheese made, and on every tin of condensed milk for the purpose of making good roads to the dairy manufacturers of Canada. If the roads were once put in good condition by Government or other authority, then a small tax would keep them in repair locally, and everyone sending milk and cream, or manufacturing the same, would reap a direct benefit. Under our present road system it is almost impossible to hope for the introduction of whole-milk creameries, yet in the long run, we believe this is the best form of local creamery, not considering the large concerns in the centres of population which receive most of their supply of raw material by rail. For such, the cream-collecting creamery is the only form practicable.

#### OBJECTIONS TO WHOLE-MILK CREAMERY.

In addition to the cost of haulage, other objections have been raised to the milk creamery among which are:

1. The quality of the skim-milk returned is not good for stock, and there is danger of spreading disease from farm to farm, through contaminated skim-milk.

There is probably something in this argument, but it has been overcome in other countries, by rapid cooling of the milk at the farm, and delivery at the creamery in a sweet condition. This enables the butter-maker to heat and separate before souring, and by pasteurization of the skim-milk at the creamery and before returning to the farm, a better and safer quality of skim-milk is returned to the farm than if the skim-milk had been fed in a raw condition immediately after milking and separating. At these creameries the milk pipes and the skim-milk tank are kept sweet and clean. Many Ontario creamerymen have themselves to blame for their patrons demanding a change from milk to cream. We remember meeting a farmer on the train one day, who said he had just bought a hand separator, and that he would not take another pound of milk to the creamery, because as he expressed it, "the skim-milk he had been getting back was rotten—not fit, even to feed to hogs." He said the trouble was caused by the creameryman not washing the skim-milk tank. In this case, both skim-milk and buttermilk were run into one tank, and it was claimed that this tank was seldom clean—it was given "a lick and a promise."

2. The second objection raised is that it costs more to manufacture the butter in a milk, as compared with a cream-gathering creamery.

This is true, because of the extra machinery needed, and more labor required to separate at the creamery, but this machinery and this labor must be supplied by some one. The cream-collecting creamery, merely shifts the cost onto the farmers—it is distributed instead of being concentrated, but in the long run the farmers or milk producers have to bear the burden, and in the aggregate it is greater because of the distribution. While hand separators have been a great help to dairy farmers, they have been and are, a somewhat expensive luxury as compared with separating large volumes of milk with power machines at central points. The capital outlay and maintenance cost of hand separators in Canada, together with the labor bill, would be an astounding sum, if it were known. However, by a happy system of distributing costs, the amount individually is comparatively small, and the people are satisfied—so are the manufacturers.

3. The third and last we shall mention, is that of limited territory. We are accustomed to do things on a big scale in America,—the million-pounds-of-butter-annually form of creamery is what we are aiming at. This sounds big and looks well on paper, but the small creamery turning out fine goods at minimum cost is an ideal worth looking into. After visiting a few of such creameries in Denmark, we were more than ever convinced of the folly of the Big Creamery for the majority of Canadian farmers.

O. A. C.

H. H. DEAN.

### Caring for the Cream Separator.

Editor "The Farmer's Advocate":

The cream separator is made for one purpose only, and that is skimming. This is done by centrifugal force. When the milk comes into the swiftly-turning bowl the heavier parts are thrown to the outside of it, and the cream forced to the center. An opening on the outer edge of the bowl lets the cream out. The one is discharged below the other, and they are caught by different pans or other receptacles, and thus carried away from the machine. The various kinds of separators on the market are all different, and the devices are purely aids. The old style machine had a hollow bowl and a wing soldered on to keep the milk whirling. In this way there was more or less mixing of the milk and cream, but now devices are used to prevent it.

Best results cannot be obtained from the use of a separator unless it receives careful attention. The proper care of the machine is a part of the dairy work that is quite often neglected. In order to do satisfactory work the separator must be set up right, turned at the proper speed, the milk skimmed at the right temperature, and all the parts of the machine kept in a clean, sanitary condition.

It is very important that the separator be set on a firm, solid foundation. A block of wood about two feet in diameter, to which the separa-

gether again. This, however, is a simple process, there being no danger of not getting it together properly. The oil cups should be cleaned out occasionally, and only the best of separator oil used for oiling the machine. It needs oiling every time it is used, and in long runs two or three times. The machine should be flushed every week with gasoline.

The separator ought to be thoroughly washed every time it is used, especially in warm weather. It is really more important to wash the machine each time it is used than it is to wash the milk pails or dinner dishes from which we eat. Dirt is removed from the milk in separating and remains in the slime of the bowl, hence, if the bowl is filled up with this matter, it cannot do so efficient work, either in skimming or helping to purify the milk. If the machine is not washed twice a day it should by all means be thoroughly cleaned every morning, and a pail of warm water run through at night. Luke-warm water to which has been added some special washing powder or sal soda is best for washing. Then all parts should be rinsed in boiling water and placed in the sun. It is well to place them in a hot oven for a few minutes to kill the bacteria. Sunshine is one of nature's best and most reliable purifiers, and all dairy utensils should be treated with this as much as possible.

The machine should always be run at full

speed. A lesser

number of revolutions

of the crank

per minute than

that specified on

the handle of the

machine or in the

instruction book

will cause a loss of

fat in the skim

milk. A slow

speed may leave as

much as one per

cent. of fat in the

skim milk, while

the proper speed

would lose no more

than .05 of one

cent. Theoretically,

the greater the

speed the more

thorough the skim-

ming, but there is

danger of breaking

the machine when

speed is too great.

With a little practice

one can soon

learn the proper

speed and uniform-

ity of motion.

There is a character-

istic hum of the

bowl that is not

heard either when

the speed is too

low or too high.

Another point

to observe is the

temperature of the

milk. No separator

will thoroughly

skim cold milk,

whatever the claim

of the agent or

manufacturer.

There are no excep-

tions to this

rule, but, of

course, the loss

with some ma-

chines will be greater

than it is with others.

The milk to be separated should be at a temperature of 85 degrees F., animal heat. It should be separated as soon as possible after being drawn from the cow, as a better grade of cream is obtained, and the skim milk is in a better condition for the young stock. When the quantity of milk is very small the cream will not flow from the separator, and all the milk will run in one spout. It is a good plan to run a little warm water through the bowl before turning on the milk. After the milk has been separated a quart or two of skim milk should be run through to obtain what cream would otherwise be left in the bowl. The skim milk should be tested from time to time, and if it shows an average test of more than .05 per cent. fat, the cause should be investigated.

Johnson Co., Ill.

W. H. UNDERWOOD.

Another instance of the trouble which ensues where oleomargarine and butter substitutes are allowed to be manufactured and sold was brought out a short time ago in Chicago where the President of an oleo manufacturing concern was fined \$10,000 and sentenced to two years in prison for conspiracy to defraud the Government of taxes on illicitly-colored oleomargarine. Seven other defendants in similar cases were fined



Putting on the Last Spray.

tor may be securely fastened, makes a good solid foundation, but is not so satisfactory as a block made of concrete. This makes a permanent foundation, and is easier to keep clean than wood, which has a tendency to become greasy. In molding the block one should not forget to mold in four bolts for fastening the separator. With this solid foundation there is no chance for jar or vibration of the separator. If the machine shakes while in operation there will be some mixing of the milk and cream, and the result will be poor skimming. Care should be taken to see that the bowl of the machine is exactly level. If it is not level the machine will turn hard and will not do as thorough work as it otherwise would. Many complain that their separators turn hard, and it is altogether likely that the bowl is not exactly level. It makes a great difference in the ease of running, and consequently the point should be watched. A small level may be purchased for a few cents or a temporary one can be made by filling a small glass vial nearly full with water.

The separator should be taken apart at frequent intervals and the gearings carefully cleaned, for the oil has a tendency to collect dust particles, which, if not wiped off, cause the machine to turn harder. Some may hesitate to take apart all the working parts of the machine for fear of not being able to put it properly to-

\$2,500 each. Dairymen, and in fact all Canadians may congratulate themselves that the bill which recently passed the House of Commons, at Ottawa, prohibits the manufacture and sale of these articles and thus eliminates the chance of crooked work being carried on by those connected with the business.

HORTICULTURE.

Apples Promise a Bumper Crop in Norfolk County.

Prospects for fruit in Norfolk county are very bright with the exception of peaches and plums. Never in the history of fruit growing in that county has there been such a show for apples. About ten days ago the trees were one mass of bloom and contrary to expectations of the most sanguine fruit growers almost every bloom seems to be bringing forth an apple. The writer was recently over the large orchard of Jas. E. Johnson, and in examining tree after tree it was found that the apples were setting very heavily and indications now are that it will be necessary to do a great deal of thinning. However, a heavy June drop may change conditions very appreciably, but at the present time we never saw such a show for apples as in the Norfolk orchards. Blossom clusters of five or six single blossoms seem to be setting as many apples when it is very often the case that only one or two out of each cluster produce fruit and the clusters have been so thick that if only one or two apples were produced in each there would still be a heavy load. Spraying has been done quite thoroughly in this district, this year. Last week, growers were busy putting on the third spray and all indications point to fruit as clean as it is possible through care to make it. Two sprayings of lime-sulphur

have been used, one on the dormant wood, the other the present spray after the blossoms have fallen the second one being Bordeaux mixture.

The winter was a very severe one and the peach trees have been very hard hit. We saw one orchard which has been cut back and it presents a very rakish appearance at the present time, although the owner believes that by fall it will be almost as good as before the frost injury. Very few trees have been killed outright, but many seem to be so injured that we doubt whether they will ever completely recover. Two and three-year-old young trees are in some cases frozen back almost to the trunk and only a few leaves were showing on these at the time of our visit last week. The frost cut some curious capers in some of the orchards we were in. In one young orchard, a small block of young Baldwin apple trees were quite badly nipped, some of them being almost dead. This was the only apple injury we noticed. Peach trees planted as fillers with these Baldwins were frozen back very badly while just a short distance north and east, the peach trees were not injured nearly so badly and were coming along fairly well. In another orchard, a tree was noticed practically killed, while those nearest to it on all sides were among the best in the orchard.

Cherries promise an abundant crop. Never, have we seen trees more uniformly loaded than some of the orchards of sour varieties are. Pears are also making a good showing, but plums as previously stated will be a light crop. However, there is not so many of the latter grown in the county. Some of the growers believe that had they fall-ploughed their land the injury to the peach crop would not have been so great and from now on these growers are going to test out the practice of fall-ploughing.

Strawberries promise well and the jam and canning factories are offering on contracts be-

tween six and seven cents per quart basket. The crop will likely be a heavy one and the price, while not high, will pay the growers fairly well. Power sprayers have taken the place of the old hand pump. In most cases where orcharding is being done on a large scale this facilitates the matter of spraying greatly and some of the largest growers have two or three of these outfits. In the Johnson orchard at the time of our visit the third spray was being applied at the rate of about 3,000 gallons per day. Three power outfits are used, one being kept at the filling tank being filled all the time and two applying. This orchard of about 1,200 trees is sprayed in this manner in about four days and an extra heavy spraying is given, the trees being soaked to the extent of about ten gallons per tree.

While planting has not been carried on so extensively in the county as was the case a few years ago a good many acres are still being set out with fruit each year. Very little is heard in that section of the danger of over-planting although some believe that the careless grower who does not pay strict attention to his fruit will never succeed in bringing his trees into bearing. It is more than likely that a considerable acreage planted will not develop into profitable orchards due to the carelessness of the grower or to a lack of knowledge of the principles of fruit growing, but there does not appear to be anything but success ahead of those growers who have planted and are planting the right varieties and who understand fully the growing of fruit and marketing conditions. Many parts of Norfolk county have been transformed during the past few years from almost a barren sand waste to a productive fruit growing section, thrifty young fruit trees and good crops of potatoes and strawberries taking the place of pine stumps and tufts of blue grass or horsetail.

How Crops are Forced in South Western Ontario.

A prospective farmer should give as much thought and consideration to location and nature of his operations as he does to whether he will farm or engage in some other occupation. Some think that when they have made up their minds to farm, have "crossed the Rubicon," have burned their boats and destroyed their bridges that the whole matter is settled and henceforth and forever they will be farmers. But what will be the nature of their farm operations? That most important problem of all is given little or no consideration. A piece of land is purchased near a church, not far from a school, on a rural route and with telephone connections, then with all these modern advantages the buyer begins to grow corn, grain and grass on a sandy soil or determines to have a fruit plantation on clay. The result is obvious—failure—and due entirely to misdirected efforts and lack of premeditation. Had the character of the operations been reversed the results would have been different.

As an example of where soil, climate and slope are appreciated and used to best advantage "The Ridge" in the southern part of Essex county, Ontario, is pronounced. Lying north of Lake Erie and sloping southward to what is known as Pigeon Bay the land has the full benefit of the sun's rays, but in addition to this the soil is of very fine gravel formation and heats quickly. Some claim that it contains a large percentage of iron and is consequently more sensitive. However, the fact remains that the soil soon becomes warm and is not unfavorably affected by rainfall. All these conditions combine to make it an early district but in order to meet market demands and get the most remuneration from an acre of land large areas are covered with glass and in these confined plants which are to produce the crops are started at an early date and later transplanted into the field. They mature their product very quickly and the grower has the advantage of an early market with quality in his fruit that could not be produced under entire artificial conditions.

On a portion of land where a prominent nursery once stood, W. W. Hilburn and his two sons are taking advantage of these conditions previously set forth. Their chief exploitations centre around the growth of early tomatoes, melons and cucumbers. On May 21st, when visited by a representative of this paper, Mr. Hilburn was finishing his tomato planting. The plants at that time were large and stalky. Many of them were in bloom while others had already set and grown small tomatoes of quite an appreciable size.

The seed for these plants is sown in the green house during the latter part of February, or the very first of March. They are first sown in small trays or flats and the area of the flat is divided into ten rows and about thirty-five seeds are

placed in each row. After germination takes place and the plants are up they are transplanted, placing about thirty-five plants in the same container. In the next transplanting the number is reduced to fifteen and in the last or third it is reduced to eight. They have gone one step farther this year and made an extra transplanting into individual boxes from which the



Head lettuce under irrigation system.

bottom drops down allowing the single plant with all the earth and roots intact to drop out into the soil when being planted. This, of course, entails considerable labor but the beneficial results are quite noticeable. The roots are uninjured and retain their foothold on the original soil and are able to branch out at once and get additional footing in the field.

A few years ago Mr. Hilburn purchased a variety of seed known as Langdon's Strain of



An irrigated field of cabbage. Photographed on May 21.

Spark's Earliana and the main part of the crops have been of this variety. However, the foliage has been rather light and in order to improve on this characteristic and to procure a little smoother growing tomato, Mr. Hilburn made his own selections last year and preserved the seed as has been previously described in columns of this paper. The plants for this selected seed have given satisfaction this spring both to Mr. Hilburn and to the neighbors who have purchased the seed. In addition the original strain and some Field's Early June are being grown this year.

The plants are set in the field at distances of four feet by five feet, this requires about 2,150 plants to the acre. On the Hilburn farm the planting is done with spades which insures a more favorable reception to the plant than where furrows are ploughed and the soil is allowed to dry. After covering is done the plants receive one handful of fertilizer. The mixture used in former years has been combined in the proportions of one bag of nitrate of soda, one bag of sulphate of potash, one-half bag of muriate of potash and two bags of bone meal. An ordinary size handful is placed in a circle around the plant far enough away so it will not come in contact with the leaves or stalk. Prior to setting, the land is treated with ashes or with dried or pulverized manure obtained from United States stock-yards.

Cultivation, of course, at once commences and continues as long as the plants are not injured by the horse or implement. With this treatment and preparation the young plants go steadily forward and about the 20th of June the first pickings are made. These are shipped to local as well as western markets and start off at a price ranging from \$1.75 to \$2.50 per eleven-quart basket. Ontario-grown tomatoes are considered superior to those coming from the South and the product of this particular district is very much appreciated on the markets. The revenue from an acre of this crop varies each year, but over \$6,000, has been recovered from a ten-acre field on a favorable year. This is the gross income but after the growing expenses are deducted there still remains a handsome return.

THE POSSIBILITIES ON THREE ACRES.

On another plantation almost directly south of the one previously mentioned and bordering directly on the lake, J. Atkin and Son are carrying on similar operations with a little diversity and a little intensity added thereto. Early tomatoes, tobacco and other crops native to that district are being produced, but Mr. Atkin has transferred his allegiance from the God of Rain to Neptune, God of the Sea, and pumps the water from Lake Erie up to the thirsty fields.

Three acres of land almost within speaking-distance of his house and bordering directly on

the lake has been decorated with rods and pipes and leading to the lake is a two-inch galvanized pipe which carries up the water. On the lake-shore a 3½ h.p. engine is installed and when set in motion, 40 gallons of water per minute are pumped out of the lake, lifted a distance of 80 feet and sprinkled like falling rain over this area of soil and crops. The result is that two successive crops can be grown in one season, any one of which will pay for the irrigation system and growing expenses. This system cost about \$150 per acre. The pump is worth \$75, the engine \$215, and 300 feet of leader pipe make an additional expense of \$42. This makes the complete cost per acre in the vicinity of \$260.50. This field is watered about twice a week, and if the machinery is allowed to run for about four hours at a time the soil is thoroughly moistened. This means that each week 19,200 gallons of water are mechanically added to the soil.

This three-acre plot is divided into different sections and on these cucumbers, lettuce, peppers, cabbage, onions and melons will all be grown. They are first started in the greenhouse and later transplanted into the open field. These three systems, namely, the greenhouse, the soil itself and the system of irrigation working in conjunction make it possible to grow two successive and remunerative crops in the same year.

In order to get an idea of the revenue from one of these single crops it might be well to consider the one acre and a half of cabbage plants now growing luxuriantly under this system of cultivation. The varieties of cabbage grown are Express, Jersey Wakefield and Copenhagen, and they were transplanted into the field on April 20th. They are set at sufficient distances that one acre will nourish and maintain about 10,000 plants. These will be ready to cut, if nothing intervenes, about the 10th of June and at that time the market is in a very receptive mood for such articles from the garden. They are sold in quantities of a bushel each and twenty head of cabbage is the average number per bushel. In former years the market allowed \$1.50 per bushel at the outset but this goes down to 75 or 80 cents, depending upon the supply from the South. However, Mr. Atkin has made different provisions for marketing this year and will endeavor to keep the local markets more uniformly supplied by the use of a motor truck.

After the cabbages have been harvested and the ground reprepared, potatoes will be planted and given much the same attention that the earlier crops receive. With good cultivation and the moisture which it is possible to give them most any quantity can be grown per acre. Mr. Atkin expects about 300 bushels per acre with only moderate attention. The other vegetables which adorn this portion of land will be followed likewise with potatoes and in former years the 13th of July has seen the field replanted with the second crop.

These few crops and systems exemplify the wisdom of locating oneself in the atmosphere of agreeable labors. Live stock appeals to some, but in this district only a few stray head of cattle may be seen and some even buy their milk for domestic use. Specialization is the motto and intensive culture the by-word of these vegetable and small-fruit growers. They have decided what lines of agriculture will please them most and they are devoting themselves physically and mentally to the work.

### Don't Take Chances.

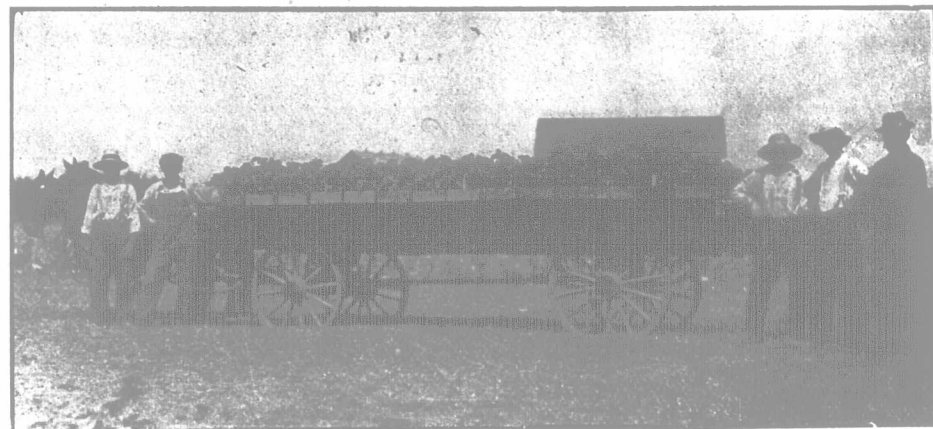
Fruit growers take many chances, sometimes they win out, and sometimes they lose out, and often when no cover crop is allowed to grow up in the peach orchard the trees die out. This was brought home very forcibly during the cold winter of 1911-1912. Rape, buckwheat, vetches, clover and in many cases weeds proved a preserver to the young orchard. One case particularly in Western Ontario showed the cover crop a wise practice. One-half of the orchard was well protected with a crop of rape, the other was bare. The half with the cover crop is still standing while the neighboring trees were long since pulled up and burned. They succumbed to the cold weather of that winter.

Just recently the writer heard a fruit grower of the Leamington District exclaim, "Those weeds were an eye sore, but I believe they saved the trees." One part of the orchard was quite over-run with weeds in the fall, but the trees came through last winter's cold snaps unimpaired while a nearby, late-cultivated orchard suffered considerably. Weeds are not a good thing to recommend as a crop, but to get down to real, rock-bottom practicability they serve a purpose and are not to be despised if the grower finds them his superior in the fall of the year when it is too late to sow a respectable cover crop. "Knowledge comes but wisdom lingers" and growers neglect to do those things, which they

know are safe-guards in time of peril, in the hope that all will be well. A cover crop sown during the first half of July, 1914, may prove profitable when the snow melts away next spring.

### Trying Things Out.

Now that the spraying season is about over, growers should not allow their joy to carry them to the point where they forget what mixtures they have used and under what conditions they have used them. Knowledge gained through experience has a double value, and the era has not yet arrived when all horticulturists agree upon the most efficient and economical spray. Day after day we hear of Bordeaux or lime-sulphur injury, yet these two fungicides have revolutionized fruit growing, and will never be forgotten for the services rendered. However, what is now sought is a material that has insecticidal and fungicidal properties combined, or, in other words, carries death to insects and scab. The governments, through their employed experimenters and scientists are constantly working in the interests of the producer, but the value of their findings will be much enhanced by the co-operation of the grower himself. It has not been long since the man on the land fought, tooth and nail, all new suggestions and preferred to cling to the customs of his fathers, but there has been an awakening and changes do not come so slowly now.



Starting for the field with tomato plants on the Hilburn Farm.

One thing being tried is the fungicidal value of arsenate of lead alone. This material has long been used in conjunction with Bordeaux and lime-sulphur, but if it has the power to curtail fungous diseases as well as to destroy insect life it will mean a vast saving through the elimination of the commonly-used fungicides. The efficiency of Bordeaux mixture was first discovered in an attempt to frighten mischievous boys from an enticing vineyard, and the fungicidal value of lime-sulphur was apprehended also in an accidental way. If there is no unwritten law that good things must come by accident, let us hope that the season's experiments may prove productive and establish a material that will be cheap, efficient and easily applied.

## POULTRY.

### A World's Poultry Congress.

His Excellency, Mynheer Greub, Netherlands Minister of Agriculture, has given, through Edward Brown, F. L. S., President of the International Association of Poultry Instructors and Investigators, on behalf of his Government, a cordial invitation for holding the First World's Poultry Congress at The Hague in 1916. This invitation has been unanimously accepted by the Council of that Association, at whose preliminary meetings, held in London nearly two years ago, a resolution was passed that such Congress should be held every three years. It was originally intended that the first should meet in 1915, but at the request of the Dutch Government it was postponed until the following year. No more suitable country could have been chosen for a gathering of this nature than Holland, where of late years great developments have taken place in connection with the poultry industry, presenting special features not met with elsewhere. The central position of The Hague and the facilities found there for holding international gatherings are so abundant, they make the choice exceptionally favorable.

In due course official notification and invitations will be issued by the Netherlands Ministry through the regular channels. Meanwhile, it may be intimated that the First World's Poultry Congress will deal with every side of the industry—breeding, production, hygiene, education, research and trade. It is hoped that in many of the leading countries committees will be named to co-operate with an executive committee, which is in process of formation.

### Early Molt and Winter Laying.

Most poultry raisers now appreciate the advantage of winter-laying hens and in order to procure this kind of fowl they are having their chicks hatched in April or early May. With the yearling hens, however, the American Poultry World advises having the hens molt early in order that they get in laying condition for the winter. In order to make the hens molt early and to get laying again correspondingly early it is advised that their feed be reduced to one-third its usual quantity for four days about the middle of August to dry up the tips of the quills and the quill cells and to cause the feathers to drop out in large numbers long before they would start with the usual feeding. During these four days, the hens should have water and green stuff rather sparingly, but should not be deprived of them altogether. After the fourth day resume the usual amount of grain and dry mash or wet crumbly mash if that has been the custom, though the dry mash is generally considered best.

To force the molt after the period of semi-starvation keep before the hens, until they start to lay, a dry mash composed of the following—two parts wheat bran, one part each wheat middlings, corn meal, gluten meal, beef scraps and linseed meal. The linseed meal opens the quill cells again, starts the oil and causes the new coat of feathers to grow rapidly. When the molt is completed the linseed meal should be omitted until cold weather arrives when it may be safely fed. However, if there is any tendency towards looseness the quantity should be reduced.

These are a few of the customs indulged in by fanciers who make money out of winter eggs, but there is no reason why the ordinary flock of hens on the farm should not be treated in the same way and forced to produce eggs during the winter months when they are needed at home and bring a good price on the local markets.

## FARM BULLETIN.

### An Important Experiment.

The Secretary of the Ontario Corn Growers' Association, W. E. J. Edwards, is co-operating with the District Representatives of the Counties of Simcoe, Peel, Welland, Durham, Hastings, Oxford and Peterboro, in Ontario to ascertain the varieties of corn best adapted to those districts. The Association has supplied the seed which covers eight varieties, namely, White Cap Yellow Dent, Bailey, Wisconsin No. 7, Golden Glow, Leaming, Longfellow, Compton's Early, Salzer's North Dakota. In these eight counties there are in all fifty-two experimenters. Each man retains one acre of land for this experiment, and it is subdivided into eight equal parts. These different varieties are planted side by side under the same conditions on this one acre of land, and they will receive the same cultivation and the same treatment throughout, which has been prescribed by the Association and the Seed Branch of the Department of Agriculture at Ottawa. These fifty-two acres of land, devoted to one particular aim, should furnish valuable information to the corn growers of those different counties. It is the field tests and findings that ultimately establish or discountenance different varieties and different cultural methods, and with the possibilities existing in the growth of corn for seed or for silo the farmers of those different counties should watch with particular interest those experiments which are now being carried on.

The weather has been very variable this spring. In eastern and northern Ontario and down in Quebec reports state that it has been very dry. In fact, if rain does not come soon the hay crop will be light in these districts. While dry weather has prevailed in the sections named, it has been an unusually wet spring in south-western Ontario, and seeding was held back considerably.

Dr. Beverly T. Galloway, Assistant Secretary of Agriculture, in the United States, has been appointed as dean of the Cornell Agricultural College, Ithaca, N. Y.



**Gordon S. Gooderham's Sale.**

The Manor Farm dispersion sale of Holsteins, owned by Gordon S. Gooderham, of Bedford Park, on Tuesday, May 26th, was favored by ideal weather, which, together with the record attractive quality of the cattle offered, brought together a representative gathering of Holstein breeders from many parts of the Dominion with a sprinkling from the country to the south. While the attendance was not up to that of some previous sales of the year the majority present were there to purchase some of the rich blood of the offering, and while a few purchasers were fortunate enough to secure some good ones at bargain prices, yet the total and average all through must be considered satisfactory. All told there were 52 head sold, including 12 calves, making an average of \$244.71, or a grand total of \$12,725.00. Forty females from yearlings up made an average of \$295.12, the highest price being \$1,040.00 for the yearling heifer Nicolo Pontiac Pauline, a daughter of the breed's greatest sire, Pontiac Korndyke. She went to the bid of W. L. Elliott, of Unionville, as did the 12-year-old, Lady Vincent for \$725.00, the five-year-old Lady Summerville De Kol went to H. F. Lee, of Sonseron, P. E. County, for an even \$1,000. Other three-year-old heifers made an average of \$272.00, and two-year-olds \$361.50. Ten bull calves made an average of \$77.50, the top price being \$150.00. James H. Stanton, of

New Woodstock, New York, was among the most extensive purchasers, as was also H. B. Tracy, of Cobourg. Other principal purchasers were Robt. Holtby, of Manchester, W. G. Hill, Queensville, and Wm. Dunning, Aurora. It was a well-conducted sale, the comfort of those in attendance was well looked after, for which much credit is due to the generosity of Mr. Gooderham and the executive ability of his sales manager, Mr. J. J. Rae. Following are those selling for \$100 or over:

Queen De Kol Posch, \$235; Cubana De Kol Princess 2nd, \$260; Princess Pontiac D. K. Korn, \$325; Bell Cora Pietertje, \$335; Countess De Kol Calamity, \$260; Mercedes Canary Pietertje, \$175; Jossie Pauline Posch, \$250; Mountain Girl, \$205; Mercena Pontiac Posch, \$425; Lady Summerville De Kol, \$1,000; Artalissa 2nd, \$185; Pauline Emery De Kol, \$200; Hulda Wayne D. K. Pietertje, \$170; Hulda Wayne of Manor, \$400; Purity Manor, \$370; Coral De Kol 3rd, \$290; Manor's Hengerveld D. K., \$250; Bedford's Gem, \$195; Bedford's Gem 2nd, \$300; Emma Korndyke De Kol, \$370; Thelma Johanna De Kol, \$155; Ruth of Manor, \$190; May Johanna of Manor, \$185; Thelma De Kol, \$125; Black Diamond, \$330; Flamboro's Mayflower, \$195; Bonalavo Lyons Johan D. K., \$225; Dot Monarch De Kol, \$185; Pontiac Johanna Nig, \$210; Lady Sunrise Beauty, \$200; Lady Primrose Sunrise, \$160; Quennie L., \$310; Burke Hengerveld \$135; Lady Vincent, \$725; Cairngorm Aaggie,

\$195; Mercena of Campbelltown, \$260; Foekje Pietertje Belie 4th, \$235; Calamity Houwtje Pauline, \$245; Nicolo Pontiac Pauline, \$1,040; Nicolo Pauline Friend, \$300; Bull Calf, \$105; Pontiac Wayne of Manor, \$150; Sir Ormsby Echo, \$140; Bull Calf, \$125.

**Graduates in Agriculture.**

The following is a list of the graduates in agriculture from the Ontario Agricultural College in 1914 as announced by the University of Toronto with which the college is affiliated. The class is one of the largest in the history of the college. Subjects in brackets after a name must be written off as supplementals:

J. N. Allan, J. F. Anderson, (English); I. T. Barnet, J. E. Bergey, B. Blanchard, F. W. Brady, (English botany); J. E. Britton, J. M. Brown, J. A. Carroll, H. Castro-Zinny, A. G. Cleaves, L. M. Davis, G. C. M. Duff, (bacteriology); F. Forsyth, (bacteriology); H. S. Fry, N. S. Golding, C. A. Good, H. R. Hare, W. H. Hayes, (English); S. H. Hopkins, W. T. Hunter, D. R. Irvine, M. Kelleher, G. F. Kingsmill, H. R. Kirk, J. S. Knapp, C. M. Laidlaw, E. Lattimer, H. D. Leppan, G. O. Madden, A. E. McLaurin, J. E. McRostie, J. Miller, J. A. Moore, L. A. Mosely, C. F. Neelands, W. G. Nixon, (English); R. L. Ramsay, G. J. Spencer, C. W. Stanley, N. Stansfield, J. W. Stark, P. Stewart, W. F. Strong, R. L. Vining, M. H. Winter, G. L. Wolitz.

**Agricultural Legislation in Nova Scotia, 1914**

The year 1914 has been fruitful of considerable legislation passed in the interests of the Nova Scotia farmer. The following specific Acts are worthy of special note and will be briefly considered in this article:

1. An Act to Encourage the Incorporation of Farmers' Co-operative Societies.
2. An Act for the Encouragement of Dairying.
3. An Act to provide for the Organization of Women's Institutes.
4. An Act to Amend "The Tile Drainage Act."
5. An Act to Amend "The Act for the Encouragement of Agriculture in respect to Provincial Grants to Agricultural Societies."
6. An Act to Amend "The Acts in Relation to the Inspection and Enrolment of Stallions."
7. An Act to Amend "An Act to Prevent the Introduction and Spread of Insects, Plant Diseases, etc."
8. An Act to Amend "An Act to Facilitate the Incorporation of Farmers, Fruit, Produce and Warehouse Associations."
9. An Act to Incorporate the Good Roads Association of Kings County.
10. An Act to Amend "The Rural Telephone Act 1913."

The following Acts were defeated:

1. An Act respecting "The Protection of Cattle."
2. An Act amending the "Act in Regard to Fences."

**Farmers' Co-operative Societies.**—The unqualified success of the Farmers' Fruit, Produce and Warehouse Associations, forty-three of which have now been organized in the fruit-shipping counties of Nova Scotia, has aroused the farmers in other parts of the Province to the need of co-operation along their special lines. The Act of 1914 provides for the incorporation of farmers' companies under the Nova Scotia Companies Act, for the purpose of purchasing for the members manures, artificial fertilizers, seeds, feeding stuffs, spraying materials and outfits, and farming implements of all kinds; and also for securing the best market for the sale of the products of the farm. No person is eligible for membership unless he resides in a farming district, and is actually engaged in the occupation of farming. Provision is made for an inspector who shall take measures for organizing and assisting such societies. No incorporation or annual registration fees are required for incorporation under this Act.

**The Encouragement of Dairying.**—The object of this Act is to foster the establishment of creameries and cheese factories, at the same time providing for a rigid inspection of such factories and their products, with a view to the maintenance of sanitary conditions in these Institutions. The Bill provides that any three or more persons who desire to associate themselves for the purpose of manufacturing butter and cheese may do so under the Nova Scotia Companies Act.

No company so incorporated shall erect buildings for the above purpose until the site, plans, etc., have been approved by the Superintendent of Dairying. The Bill includes a provision for the expenditure of a sum not exceeding \$15,000 in any one year by the Government to purchase a site for and to build a demonstration creamery or cheese factory at such places as may be recommended. One creamery at Baddeck has already been erected under the provisions of this Act.

**Women's Institutes.**—Under the provisions of this Act, Women's Institutes may be organized in any county or part of a county by a number of women, not less than ten. The Governor-in-Council may appoint a Superintendent of Women's Institutes. For the purpose of encouraging this work a sum not exceeding \$5,000 per year may be expended. The organization of Women's Institutes in Nova Scotia, under the provisions of this Act, is rapidly proceeding.

**Tile Drainage Act.**—In 1910 the Nova Scotia Government passed the Tile Drainage Act, making provisions for farmers, who purposed draining their lands, to borrow money for that purpose from the municipality. Under the Act, however, the municipalities could not issue debentures for this purpose in sums of less than \$1,000, and, as it frequently transpired that no one farmer or even several farmers would make application for as large an amount as this, the Act has become inoperative. The amendment of 1914 states that "The Council of every municipality may pass by-laws from time to time for borrowing for the purposes hereinafter mentioned (Farm Drainage) in sums of not less than \$100, such monies as may be considered expedient, and for issuing therefor the debentures of the municipality, etc."

**Grants to Agricultural Societies.**—The Nova Scotia Government gives grants to each of the 219 Agricultural Societies which exist for the purpose of live stock improvement. The amount voted for the purpose is \$15,000. In 1913 the Government granted \$1.00 for each \$1.00 subscribed by the Societies, but in 1914 the Society subscriptions have exceeded the Government grant, and hence the clause in regard to the subscription has been amended as follows: "There shall be paid to each Society \$1.00 for every \$1.00 of annual subscription up to an amount not exceeding \$40.00. The remaining part shall be distributed ratably among such Societies whose subscriptions are more than \$40.00, but no Society shall receive a larger grant in any one year than \$250.00." No comment is required to indicate that the legislation of 1914 is in the interest of the weaker societies.

**The Inspection and Enrolment of Stallions.**—The clause stating the unsoundnesses for which stallions shall be inspected is amended by adding the following words: "and any such malformation as the Secretary for Agriculture upon inspection and report by an inspector deems to render a stallion unsuitable for breeding purposes." The reason for this will be very apparent to any horseman who knows that some malformations of joints may involve a much more serious objection to a horse than even the presence of a spavin. The cost of veterinary inspection is reduced from \$5.00 to \$2.50.

**The Prevention of Insect and Plant Diseases.**—The original Act of 1911 only made provision for the passing of regulations in regard to such insects and plant diseases as the Governor-in-Council had declared to be injurious. The amendment makes provision for the passing of regulations in regard to any insect pest or disease destructive to vegetation. The farmers in general, and the fruit growers in particular, of Nova Scotia are determined to reduce to a minimum the ravages of insects and plant diseases, and, under the provisions of this Act, nearly all classes of vegetation shipped into the Province have to pass rigid inspection before being admitted.

**Farmers' Fruit, Produce and Warehouse As-**

**sociations.**—The success achieved by these associations since the passing of the original Act in 1908 has led the Legislature to grant increased powers from year to year. The present legislation gives the shareholders power from time to time to make by-laws, rules and regulations in regard to various matters pertaining to the interests of these companies.

**Good Roads Association.**—The Kings County Good Roads Association is a body independent of any political organization that has become voluntarily organized for the purpose of the improvement of roads in that county. The Association has received grants of money from private people and expects to receive considerably larger amounts, and for this purpose it was deemed advisable that the Association be incorporated. It is only a few months since the organization, but during this time the Association has been instrumental in getting forty or more split log drags in operation on the roads, and also in arousing a tremendous enthusiasm for good roads.

**Rural Telephone Act.**—In 1913 the Government passed what is now known as the Rural Telephone Act, making provision for the erection of telephone lines, more especially in the outlying parts of the Province. One of the provisions of the Act was that the Government should give a grant of \$20.00 per mile for this purpose. The amendment of 1914 provides that the Companies organized under this Act shall annually set aside as a reserve fund 10 per cent. of the grant paid by the Government, which amount shall be available for repairs and improvements of the telephone line. Most of the posts used in these telephone lines are spruce, and ten years is about the limit of their usefulness. Since the passing of the Act in 1913, fifty-five companies have been organized.

**Sheep Proof Fences.**—Pursuant to a resolution of the Nova Scotia Farmers' Association to the effect that, when demanded, a legal line fence should be a sheep proof fence, an Act embodying this principle was introduced. It passed the Legislative Assembly, but was defeated in the Legislative Council. Many farmers hold that poorly-constructed fences are more responsible for the decrease in the number of sheep than the dog nuisance. This Act, had it passed, would have partly remedied this condition, but now that it has been defeated, those farmers who are in favor of the principle should so agitate the matter as to secure unanimous support for the Act in 1915.

**An Act Representing the Protection of Cattle.**—This Act, which received the three months hoist, provided that the owner of any bull who allows such a bull to run at large shall be liable to a penalty of \$25.00. It further provided that in case a cow becomes pregnant from the service of a bull that is not kept under control, as provided in the next preceding section, the owner of such cow shall be entitled to recover damages from the owner of such bull, unless it is proved that said cow was not, at the time of such service, under such control as is provided in the next preceding section.

It was felt by those who promoted this Act that it was quite a step towards the removal of the "scrub bull" nuisance, and it is hoped that interested farmers will do their best to secure support for some such measure in the interests of live stock improvement at the next session of the Legislature.

M. CUMMING.

## What Some Farmers Owe the Past.

Editor "The Farmer's Advocate":

A good deal of money will be made on the fruit farms of Ontario this year, as in every year, that never would have been possible but for certain remarkable happenings no one knows how long ago. By this way of looking at it, the peach and grape crops of 1914 date back at least some fifty or sixty thousand years.

The Niagara fruit district, from which comes the bulk of Canada's fancy fruits, is a comparatively small area to produce so much good wealth, for it is only a narrow strip of land stretching along the front of Lake Ontario between the Niagara River and Hamilton, and between the shore of the lake and the foot of the Niagara escarpment. At Queenston it is seven miles wide, but further west it narrows to one or two miles. It is a gently-sloping terrace, and upon it are the farms and vineyards of the Niagara and Grimsby districts, as well as the city of Hamilton and a half-dozen smaller towns. The escarpment which forms its background—or perhaps its backbone—was most conveniently and fortunately placed, from the fruit-grower's point of view. The strange thing about it is that it is the old shore cliff of a post-glacial lake which was drained off some seventeen thousand years ago, and to which the modern Lake Ontario is successor.

But even that does not look far enough back. A glacial lake preceded it. Not one alone, but a series of glaciers, came down from the north and left immense deposits of ice and clay over what is now central Ontario and northern New York, reaching also as far as Wisconsin and Iowa. That was fully five or six hundred centuries ago, according to the geologists. Then followed a glacial lake, fed by the melting ice, in the basin of what is now Lake Ontario. It reached to fully three hundred feet above the present level, and at some point down the St. Lawrence was impounded by a gigantic ice dam. In time these sheets of ice all disappeared; but after the last one was gone a new and smaller lake was formed, partly by the overflow from the three Upper Lakes, which were then probably united in one. To this post-glacial water has been given, for convenience in referring to it, the name of Lake Iroquois. It was at first lower than the lake of to-day, and the melting of the ice dam, by providing a new outlet into the St. Lawrence, rapidly brought its level still further down. But at the head of the lake it rose again during later ages till it reached a point one hundred and fifty feet higher than the present lake and some seven miles wider. "Lake Iroquois" lasted for perhaps seventeen thousand years, and then its water drained off to the level of the modern Lake Ontario. From that date until the present has been probably an equal length of time—ages to us, but geologically speaking only a few moments.

The shore cliffs and beaches of this ancient Lake Iroquois have to-day a unique value economically. They are clearly marked, for anyone to see, and they furnish their own proofs. On the New York side of the lake numerous hills of morainic origin—that is, made by glacial deposits—rise to heights of from sixty to two hundred and fifty feet, showing gravel bars and strata of beach sand and clay. The clearest evidences of the Iroquois beach, however, are on the

Canadian side, along the two V-shaped arms at the western end of the lake—from Niagara westward to Hamilton, and from Hamilton northeast to Toronto, an equal distance. Thence for a hundred miles, along the north coast of the lake, to Trenton, the beach may be traced with comparatively few interruptions.

This all means that what we now sometimes call the "Garden of Canada" is the beach of the old Lake Iroquois turned to farms. There is perhaps no richer bit of farming country in all America. The shore cliff of the ancient lake, now a ridge of hills which at its greatest height reaches to three hundred feet, shelters it on one side, and on the other it is tempered by the lake; thus protected, forty thousand acres of orchard and six thousand acres of vineyard produce nearly every kind of domestic fruit which it is possible to grow outside of the tropics. The clayey and sandy loams of the old beach afford the best of soils for the peach, pear, plum and grape, and are ready levelled, with a gentle slope to the lake. This fifty-mile garden is of nature's own making, and for many years has been supporting a lucrative and growing industry. The Niagara district fruit farmers, and we who eat of their choice fruitage, owe a great debt to the long-ago, but it is a debt that they and we alike do not often recognize.

Alberta.

AUBREY FULLERTON.

## Very Dry in Ontario County.

Editor "The Farmer's Advocate":

Our county and in fact all this district and well east has experienced a very dry spring, almost everything is needing rain badly, and while it has at time of writing (May 22nd) every appearance of rain, the same appearance has been apparent for some time. We could well do with some of the extra rain given to the Western and Southern counties. Hay, it is feared, will be short, and while it is too early to predict the grain crop it has a fairly good appearance, and fall wheat looks well. A larger acreage than usual is devoted to corn; farmers are gradually realizing the wonderful value of this great crop. Farm hands about equal the demand, there is very little construction work being done this year, and the men are not quite so independent. We fully realize "the laborer is worthy of his hire," but we do not wish to see the day when the farm hands have the greatest advantage. We expect to see a fair crop of apples, if nothing unforeseen occurs to injure. Not so many young apple trees are being planted as in former years.

One of the young farmers of the community has installed a milking machine for his herd of Holsteins, and the machine seems to give fair satisfaction, although a slight shrinkage was noticed in the yield of milk. The machine is a two-unit one, capable of milking two cows at once, that is, each unit milks one cow. The machine is driven by a 1½ H. P. gasoline engine, and three cents per day will easily pay for gasoline in milking 14 cows. One man will milk about 12 cows per hour. The cows are all stripped by hand, but an easy-milking, fresh cow does not need it. The writer saw this machine milk a cow in 3 minutes, getting 20 pounds of milk. Of course she was particularly easy. About twenty-five minutes per day is required to wash machine. It is scalded in the morning, then the rubbers, etc., are placed in a solution

to preserve rubber and keep sweet; at night the machine is rinsed as soon as possible after milking, then placed in clean water until morning. The machine and engine will just about do the work of one man; anyone considering purchasing a machine can consider the investment of \$150 or \$160 as well as depreciation, fuel, etc., against one man's time while milking. Also cheaper help may be had where hand milking is not done, and the farmer should consider himself or his sons. This might be a way to keep the boys on the farm.

Ontario Co., Ont.

H. W.

## Old Ontario Looks Fine.

Editor "The Farmer's Advocate":

While we heard a good deal of complaint especially a little earlier in the season of too much rain in Western Ontario which held back seeding operations considerably it is seldom at this season of the year that we have seen prospects very much better for an all-round crop. As seen on a recent trip through the eastern part of Middlesex county and down through South Oxford and into Norfolk crops of all kinds seem to be doing well. Some sections had suffered from the rain, but where under-drainage has been done grain on this land is looking well. A good deal of fall wheat has been badly winter-killed and the crop is not going to be a heavy one, although some extra good fields are to be seen, most of these we believe being on summer-fallowed land which had a fairly heavy coat of barnyard manure.

The hay crop at present does not seem to indicate a big yield. The severity of the winter and the lateness of the spring have served to hold it back and while many fields promise fair yields there will not be many extra heavy crops of hay unless the season is very favorable from now on. More corn is being planted this spring than ever before and it is going in in first class condition, the land having been well worked and the warm weather and showers making ideal conditions. We saw one field up very nicely on May 29th. Down in the lighter land in Norfolk County a large acreage of potatoes is being planted. The early potatoes were up at the end of last week and some of them had been cultivated. Some of the growers are making a specialty of growing potatoes for seed.

Spring grain while in some cases late sown is making a very rapid growth, frequent showers, and warm weather rushing it along at a great rate. If it keeps this up for a few weeks the straw is likely to be soft but of course, with June coming on it is not likely we will get so much rain, and growth will be checked slightly. Oats, particularly, are showing a very good color and prospects are, at the present time, for a very good crop even though they went into the ground rather late. A large acreage of barley is not grown in this district but where the land has been well prepared and the soil is fertile the crop is looking fine. Pasture as a general thing is good and the cattle seen along the road seem to have wintered well and taken altogether conditions in the section of country traversed never were much more promising than at the present time. As one traveller was heard to remark: "Old Ontario is looking good enough for anyone just now."

FARMER JOHN.

# Toronto, Montreal, Buffalo, and Other Leading Markets.

## Toronto.

Receipts at the Union Stock Yards, West Toronto, on Monday, June 1st, numbered 150 cars; 2,717 cattle; 1,953 hogs; 260 sheep; 427 calves. Quality of cattle good to choice generally. Trade active in morning, but slower towards close of market. Prices for choice, light butcher cattle steady, but ten to fifteen cents lower for heavy steers. Choice quality steers sold at \$8.15 to \$8.35, and one load at \$8.50 per cwt.; good, \$7.90 to \$8.15; common, \$7.50 to \$7.75; choice cows, \$7.25 to \$7.50; good cows, \$6.75 to \$7; common, \$5.50 to \$5.80; canners and cutters, \$4 to \$4.75; bulls \$6.50 to \$7.65; feeders, choice steers, \$7.75 to \$8; medium, \$7.25 to \$7.50; stockers, \$6.50 to \$7.15. Milkers and springers sold from \$65 to \$100, the bulk going at \$70 to \$85. Calves firm, choice, \$9.50 to \$10.50; common to good, \$7 to \$9. Sheep, ewes, \$6.50 to \$7.25; rams, \$5 to \$6; spring lambs, \$6 to \$9 each. Hogs, market lower from 15c. to 25c.; selects, \$8.10, fed and watered, \$7.75, f. o. b. cars, and \$8.85 off cars.

## REVIEW OF LAST WEEK'S MARKETS

The total receipts of live stock at the City and Union Stock-yards, for the past week were:

	City.	Union.	Total.
Cars	8	337	345
Cattle	82	4,263	4,345
Hogs	218	7,837	8,055
Sheep	94	645	739
Calves	58	1,078	1,136
Horses	—	39	39

The total receipts of live stock at the two markets for the corresponding week of 1913, were:

	City.	Union.	Total.
Cars	21	317	338
Cattle	421	4,511	4,932
Hogs	289	5,848	6,137
Sheep	324	620	944
Calves	241	624	865
Horses	—	65	65

The combined receipts of live stock at the City and Union Stock-yards for the past week show an increase of 7 car loads, 1,918 hogs, 205 sheep and lambs, and 271 calves, but a decrease of 587 cattle, and 26 horses, compared with corresponding week of 1913.

The deliveries of fat cattle were only moderate for the past week, and as a consequence values were higher in all classes. The usual outside buyers from Montreal, Hamilton, and Northern Ontario, were on hand and their purchases of several hundred cattle helped to strengthen the market, and deplete supplies, so much so that before the end

of the week all offerings were readily taken on each market day, long before the noon hour arrived. Feeders and stockers were asked for by an increased number of buyers, and values increased fully 10 cents to 15 cents per cwt. Several lots of short-keep feeders changed hands at \$8 to \$8.10. Milkers and springers were offered in fairly large numbers, but values remained very strong. Veal calves sold at as high prices as ever, and more would have sold. The number of sheep and lambs coming forward were larger, but not enough to decrease values. Hog receipts were moderate, and prices were higher after the first day of the week. Trade for the week was good all round, and sellers were better satisfied with their work than for many weeks past.

Butchers.—Choice steers sold at \$8.35 to \$8.65 by the load, and as high as \$8.80 for odd steers, and one baby-beef steer of fancy quality, 1,100 lbs., sold at \$9; good to choice steers and heifers, \$8 to \$8.35; medium, \$7.75 to \$8; common, \$7.50 to \$7.75; choice cows, \$7.25 to \$7.75; good cows, \$6.75 to \$7; medium cows, \$6.50 to \$6.75; common, \$5.50 to \$6.25; canners and cutters, \$4 to \$4.75; bulls, \$6.50 to \$7.75.

Stockers and Feeders.—The demand for all classes of feeders, even the light ill-

bred-eastern sold high. Short-keep feeders sold at \$7.80 to \$8.10; plain feeding steers, \$7.50 to \$7.75; common steers, \$7.25 to \$7.50; eastern stockers, 500 to 600 lbs. at \$6.75 to \$7.10.

Milkers and Springers.—Choice milkers and springers, sold from \$60 to \$115 each, the bulk going at \$70 to \$90 each.

Veal Calves.—Choice calves sold at \$9.50 to \$10.50; good calves, \$8 to \$9; common to medium, \$7 to \$7.75. Few choice calves are coming forward.

Sheep and Lambs.—Values of sheep and lambs were steady. Light ewes, \$6.50 to \$7.25; heavy ewes and rams, \$5 to \$6.25; yearling lambs, \$8.50 to \$9.50; spring lambs, \$5 to \$9.50 each.

Hogs.—Selects fed and watered, \$8.40; and \$8 to \$8.05, f. o. b. cars; and \$8.60 to \$8.65, weighed off cars.

## TORONTO HORSE MARKET.

Sales at the Union Horse Exchange were fair, about 75 horses having changed hands. The bulk of these being bought and shipped to Montreal and Quebec, and a few local lots to Toronto, Hamilton and St. Catharines. Prices remained about steady, and were reported as follows: Drafters, \$200 to \$250; general-purpose horses, \$175 to \$225; expresser, \$150 to \$200; drivers,



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### BREADSTUFFS.

Wheat.—Ontario, No. 2 red, white or mixed, \$1.03 to \$1.04, outside; Manitoba, No. 1 northern, \$1.00, track, bay points; No. 2 northern, 98c.; more at Goderich.

Oats.—Ontario, outside, white, No. 2, 39c. to 40c.; new, 41c. to 42c.; track, Toronto; Manitoba, No. 2, 42c.; No. 3, 41c., lake ports.

Rye.—Outside, 63c. to 64c.  
Peas.—No. 2, \$1 to \$1.10, outside.  
Buckwheat.—No. 2, 83c. to 85c., outside.

Corn.—American, No. 3 yellow, 76c., all rail, track, Toronto.

Barley.—For malting, 55c. to 56c., outside.

Flour.—Ontario, 90-per-cent, winter-wheat patents, \$3.80 to \$3.85, bulk, seaboard; Manitoba flour—Prices at Toronto are: First patents, \$5.60; second patents, \$5.10; in cotton, 10c. more; strong bakers', \$4.90, in jute.

### HAY AND MILLFEED.

Hay.—Baled, car lots, track, Toronto, \$14 to \$14.50; No. 2, \$13 to \$13.50.  
Straw.—Baled, in car lots, \$8.50 to \$9.

Branch.—Manitoba, \$25, in bags, track, Toronto; shorts, \$26; Ontario bran, \$24, in bags; shorts, \$25; middlings, \$28.

### TORONTO SEED MARKET.

The following are the prices wholesale seed merchants are quoting to the trade: Red clover, No. 1, \$19 to \$21 per cwt.; red clover, No. 2, \$17.50 to \$18.50 per cwt.; alsike, No. 1, \$21 per cwt.; alsike, No. 2, \$17 to \$18.50; timothy, No. 1, \$8.50 to \$9.50 per cwt.; timothy, No. 2, \$7.25 to \$7.50 per cwt.; alfalfa, No. 1, \$14 to \$15 per cwt.; alfalfa, No. 2, \$13 to \$13.50 per cwt.

### COUNTRY PRODUCE.

Butter.—Receipts were liberal and prices easy. Creamery pound rolls, 24c. to 26c.; creamery solids, 23c. to 24c.; separator dairy, 24c.; store lots, 20c. to 21c.

Eggs.—Old-laid, firmer, at 23c. to 24c. Cheese.—New, twins, 15c.; large, 16c.; new, twins, 14c.; large, 14c.

Beans.—Imported, hand-picked, \$2.40; Canadian, hand-picked, \$2.40; primes, \$2.25 per bushel.

Poultry.—Receipts principally cold-storage, which were quoted as follows: Turkeys, 21c. to 25c.; geese, 14c. to 15c.; ducks, 14c. to 20c.; chickens, 17c. to 23c.; hens, 14c. to 17c. Spring chickens, of which there are a few being offered, sold at 55c. to 60c. per lb., dressed.

Potatoes.—Car lots of New Brunswick Delawares, \$1.20 to \$1.25 per bag; car lots of Ontario, \$1.10 to \$1.15 per bag, track, Toronto.

Honey.—Extracted, 9c. per lb.; combs, per dozen, \$2.50 to \$3.

### HIDES AND SKINS.

No. 1 inspected steers and cows, 13c.; No. 2 inspected steers and cows, 12c.; city hides, flat 14c.; country hides, cured, 13c.; calf skins, per lb., 17c.; lamb skins and pelts, 35c. to 50c.; horse hair, 37c. to 39c.; horse hides, No. 1, \$2.50 to \$4.50; tallow, No. 1, per lb., 5c. to 7c.

### TORONTO FRUIT MARKET.

Nearly everything in the shape of vegetables and fruit now being offered on the Toronto market is of foreign growth.

Asparagus, basket, \$1 to \$1.25; celery, crate, \$3.50 to \$4; cucumbers, hamper, \$2.25 to \$2.50; cabbage, per case, \$2.50 to \$3; tomatoes, case, \$3 to \$3.75; strawberries, quart boxes, 17c. to 18c.; green peas, hamper, \$2.50; wax beans, hamper, \$2.75 to \$3; new carrots, \$1.70 per hamper; new carrots, \$1.75 per hamper; spinach, 90c., hamper; onions, Egyptian, \$5.25 per sack; a few Ontario-grown apples are still to be had at 40c. to 60c. per basket.

### Montreal.

Live Stock.—The warm weather no doubt interfered to some extent with the cattle market during the past week, but the trade was nevertheless fairly active. Prices continued to hold firm, choicest steers selling from 8c. to 8c. per lb., while choice ranged from 8c. to 9c., good sold at 7c. to 8c.; medium at 6c. to 7c., while lower grades ranged down to 5c. per lb. Cows and bulls ranged generally from 5c. to 7c. per lb., according to quality. Supplies of cold storage mutton were fairly liberal, so that the tone of the market for sheep and lambs was on the easy side. Sheep sold at \$4 to \$6 each and spring lambs ranged from \$3 to \$8 each, according to quality. Calves continued steady. Poor-quality ranged from \$3 to \$5 and better qualities up to \$10 each. Offerings of hogs were on the light side and the tone of the market was steady, with Ontario selects selling at 9c. to 9c. per lb., according to quality, weighed off cars.

Horses.—Dealers report a fair demand for horses. Horses weighing from 1,500 to 1,700 lbs. sold at \$275 to \$300 each; light draught, weighing from 1,400 to 1,500 lbs., \$225 to \$275 each; broken-down old animals, \$75 to \$127, and choicest saddle and carriage animals, \$350 to \$400 each.

Dressed Hogs.—Demand was active all the way round and prices were unchanged. Abattoir-dressed, fresh-killed hogs were steady at 12c. to 13c. per lb. Smoked meats were selling briskly and the tone of the market was firm. Medium weight hams were selling at 17c. to 18c. per lb., while breakfast bacon was 18c. to 19c. Windsor bacon was 22c. and boneless windsor, 24c. per lb. Pure lard sold at 13c. to 13c., and compound at 11c. to 11c. per lb.

Potatoes.—Owing to the warm weather and increased offerings, the price of potatoes declined. Green Mountains, in carlots, were quoted at \$1.05 to \$1.10 per bag of 90 lbs., while Quebec white stock was quoted at 85c. to 90c. and reds about 5c. less. In a smaller way, prices ranged from 15c. to 20c. higher.

Honey and Syrup.—Maple syrup in tins was 60c. to 65c. in small tins and up to 85c. for 11 lb. tins. Sugar was 9c. to 10c. per lb. White clover comb honey was 14c. to 15c. per lb.; extracted, 10c. to 11c.; dark comb, 12c. to 13c. and strained, 6c. to 8c. per lb.

Eggs.—Offering continued of good quality and demand was active. Quotations continued firm, being 22c. to 23c. for wholesale lots of straight gathered eggs, and 26c. for single cases of selected stock, with No. 1 stock at 23c. and No. 2 at 21c. to 21c.

Butter.—Rains have improved the grass and the flow of milk, and prices of butter were slightly easier. At the auction choicest quality creamery sold at 22c. and pasteurized at 23c., with fine at 22c. Manitoba dairy was 17c. to 18c., and Ontario 19c. to 20c.

Cheese.—The market for cheese showed no change. Western colored was 12c.

to 12c. per lb., and white 12c. to 12c. Eastern cheese was 11c. to 12c. per lb.

Grain.—The market for oats was higher last week. No. 2 Western Canada oats, were quoted at 43c. to 44c. per bushel, ex store, in car lots; No. 23, at 42c. to 43c.; and No. 2, feed, at 41c. to 42c.

Flour.—Manitoba first-patent flour was still quoted at \$5.60 per barrel, in bags; seconds being \$5.10, and strong bakers, \$4.90. Ontario winter-wheat flour was firmer at \$5.25 to \$5.50 for patents; and \$4.70 to \$4.90 per barrel for straight rollers, in wood.

Millfeed.—Millfeed prices were steady. Bran sold at \$23 per ton, and shorts at \$25, in bags, while middlings were \$28, including bags. Mouille was \$30 to \$32 per ton for pure, and \$28 to \$29 for mixed.

Hay.—Rains have fallen and have been of benefit to the crop, although more moisture is needed. No. 1, pressed hay, car lots, Montreal, track, was \$16 to \$16.50 per ton, while No. 2 extra good was \$15 to \$15.50; and No. 2, \$14 to \$14.50.

Seed.—Prices were: Timothy, \$10 to \$11.50 per 100 lbs., Montreal; red clover, \$22 to \$24 per 100 lbs.; and alsike, \$20 to \$24 per 100 lbs.

Hides.—Beef hides were 1c. up at 14c., 15c. and 16c. for Nos. 3, 2 and 1 respectively. Calfskins were 16c. and 18c. for Nos. 2 and 1; and sheepskins were \$1.35 to \$1.40 each. Lambskins were higher at 25c. each; with horsehides ranging from \$1.75 for No. 2 to \$2.50 each for No. 1. Tallow sold for 1c. to 3c. for rough, and 5c. to 6c. for rendered.

### Buffalo.

Canada cut quite a figure in the cattle trade here the past week. Of the 110 loads offered Monday something like one-third were Canadian offerings, and, in addition, a large number of shipping steers were Canadian steers shipped to the country for feed and brought back to the market for sale. Extreme top of \$9.50 was paid for a couple of Canadian yearlings—steer and heifer, and best Canadian shipping steers on the strong weight order, ranged from \$8.75 to \$8.85. It was a 15c. to 25c. higher market than the week before, and quite in contrast to the previous week's trade, in that there was more life and action to the market than had been witnessed for several weeks. The short supply and the fact that New York needed some quick cattle, to fill in with, on account of Jewish holidays the latter part of the week, was one of the prime reasons for a very high trade. Good cutting cattle sold to equally as butch advantage, these bringing generally 15c. to 25c. better prices, with the possible exception of cutters and canners, which brought about steady prices. Practically all of the shipping steers were cleaned up by nine o'clock, and there was demand for more. All of the eastern order buyers were in the day's trading. Handy butchering steers sold up to \$8.75 to \$8.85; a load of short twos, very fancy and of very hard flesh, brought \$9.25, going to New York. They weighed only 1,177 lbs. Another load made \$9.25, but were heavier. Canadians were better the past week than for some weeks past, and were taken readily for New York and far eastern demand. Stockers and feeders ruled full strong with the week before, selected, dehorned, fleshy feeders being quotable up to \$8 to \$8.25, with fair to good kinds of stockers and feeders selling from \$7.50 to \$7.85. Very little in the light, common stocker line is selling below \$6.50 to \$6.75. Handy fat heifers and good-fleshed cows are none too plentiful and are selling high, choice butchering heifers being quotable up to \$8.25 to \$8.50. Bulls sold strong to a dime higher, some fancy bulls the past week ranging up to \$7.75 to \$8. Milcher and springer trade was unchanged, some fancy and heavy producing grades bringing high figures, but the general run of good grades is selling from \$7.50 to \$8.50. Handier are becoming more popular as the hot weather approaches, though sellers generally take the position that there will be such a scarcity of strictly dry-fed steers this summer that runs will bring high prices. Moderate runs are predicted from now until July, when the grassers ruled to come more plentifully.

Up to this time comparatively few grassers have been offered. Grass has been too watery, resulting in grass cattle faring rather unsatisfactorily. Sellers are expecting good supplies of Canadians, as of late they have been bringing good prices, as compared with home markets and other points. Receipts for the past week figured 3,200 head, as against 5,175 head for the previous week, and 3,465 for the corresponding period a year ago. Quotations:

Best 1,350 to 1,450-lb. steers, natives, \$9 to \$9.25; 1,200 to 1,300 lbs., \$8 to \$8.25; fancy yearlings, baby beef, \$8.50 to \$9; medium to good, \$8 to \$8.25; best Canada steers, 1,350 to 1,450 lbs., \$8.65 to \$8.85; best Canada steers, 1,150 to 1,250 lbs., \$8.40 to \$8.60; choice heavy steers, 900 to 1,100 lbs., \$8.50 to \$8.75; fair to good steers, 1,000 to 1,100 lbs., \$8.15 to \$8.35; extra good cows, \$7.25 to \$7.50; butcher cows, \$5.50 to \$6; best heifers, \$8.25 to \$8.50; medium butcher heifers, \$7.75 to \$8; stock heifers, \$6.25 to \$6.75; best feeding steers, dehorned, \$8 to \$8.15; fair to good, \$7.50 to \$7.75; best stock steers, \$7.50 to \$7.75; common light stock steers, \$6.75 to \$7; extra good bulls \$7.50 to \$7.75; butchers and springers, \$7.50 to \$9.

Hogs.—Prices were lower again the past week, market being on the lowest level since the middle of January. Week opened with an \$8.65 market for packer's kinds, and the next two days saw best grades selling down to \$8.55. A reaction occurred Thursday and Friday, bulk of Thursday's sales being made at \$8.60, while Friday, majority moved at \$8.65. Monday's run included seven decks of Canadian hogs, and the majority of these sold at \$8.55, one deck \$8.60. Thursday, couple of bunches of Canadians moved at \$8.50; and Friday, one or two bunches from the Canadian section that were on the York order averaging around 170 lbs. brought \$8.65. Roughs, the past week, ranged from \$7.25 to \$7.50; and stags mostly \$6.50 to \$6.75. Receipts the past week were 30,400, as against 34,850 the previous week, and a year ago, 35,520.

Sheep and Lambs.—Lamb market showed a bad break the past week. Monday, which was practically the high day, tops sold up to \$8.40, and before the week was over, or on Friday, buyers got choice, handy ones down to \$8.

Calves.—Calf prices were held steady the first three days the past week, tops selling at \$10 to \$10.25; culls \$9 down. Thursday the market broke a quarter and Friday's trade was strong; a few choice veals reaching \$10.25, with bulk at \$10.

Butter.—Creamery, prints, 28c.; creamery, extra, tubs, 27c.; dairy, choice to fancy, 23c. to 24c.; dairy, fair to good, 20c. to 21c.

Cheese.—Cheese, fancy, old, per lb., 19c. to 20c.; cheese, good to choice, new, 14c. to 15c.

Eggs.—White, fancy, 22c. to 22c.

### Chicago.

Cattle.—Beeves, \$7.40 to \$9.30; Texas steers, \$7 to \$8.15; stockers and feeders, \$6.85 to \$8.85; cows and heifers, \$3.70 to \$8.75; calves, \$7 to \$9.50.

Hogs.—Light, \$7.85 to \$8.07; mixed, \$7.85 to \$8.10; heavy, \$7.60 to \$8.10; rough, \$7.60 to \$7.75; pigs, \$7 to \$7.90; bulk of sales, \$8 to \$8.05.

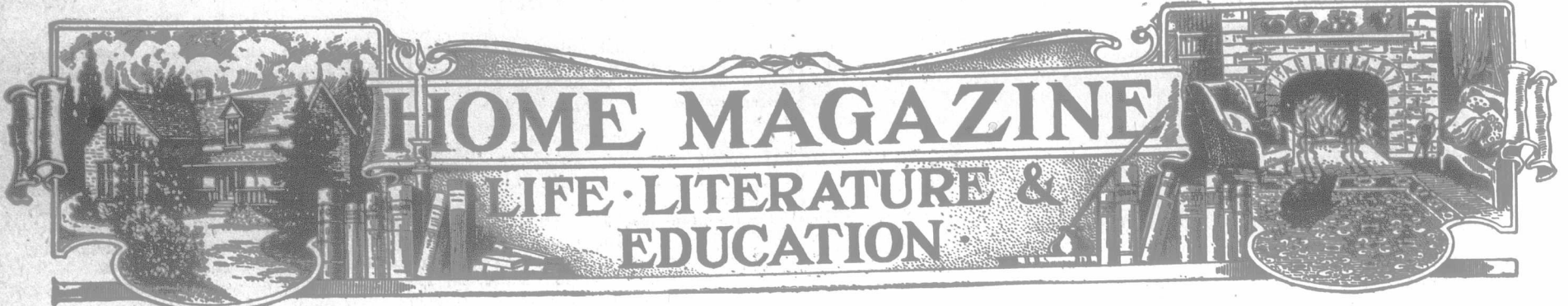
Sheep.—Natives, \$5.25 to \$6.15; yearlings, \$6.10 to \$7; lambs, native, \$6.15 to \$8.20; spring lambs, \$7 to \$9.75.

### Cheese Markets.

Campbellford 11 11-16c. and 11 5-16c., balance refused at 11c.; L'Islet Station, Que., butter, 22c.; Vankleek Hill, white, 11 15-16c. and 12c., colored, 12 3-16c.; Brockville, 12c. and 12 1-16c.; Kingston, colored, 12 1-16c., white, 11c.; Alexandria, white, 11c.

### Gossip.

In Colver V. Robbins' advertisement, regarding Holstein-Freisian cattle, the sire of his herd bull is mentioned as Pontiac. This should read Pontiac Korndyke No. 2,982, the world's greatest dairy sire. This correction will be made in subsequent numbers.



### Love of Life.

Love you not the tall trees spreading wide their branches,  
Cooling with their green shade the sunny days of June?  
Love you not the little bird lost among the leaflets,  
Dreamily repeating a quaint, brief tune?  
Is there not a joy in the waste windy places;  
Is there not a song by the long dusty way?  
Is there not a glory in the sudden hour of struggle;  
Is there not a peace in the long quiet day?  
Love you not the meadows with the deep lush grasses;  
Love you not the cloud-flocks noiseless in their flight?  
Love you not the cool wind that stirs to meet the sunrise;  
Love you not the stillness of the warm summer night?

Have you never wept with a grief that slowly passes,  
Have you never laughed when a joy goes running by?  
Know you not the peace of rest that follows labor?  
You have not learnt to live, then; how can you dare to die?—Tertius Van Dyke, in Scribner's Magazine.

### Browsings Among the Books.

#### POSTPONING LIFE.

[From "Lay Morals," by R. L. Stevenson.]

Now the view taught at the present time seems to me to want greatness, and the dialect in which alone it can intelligibly be uttered is not the dialect of my soul. It is a sort of postponement of life; nothing quite is, but something different is to be; we are to keep our eyes upon the indirect from the cradle to the grave. We are to regulate our conduct not by desire, but by a politic eye upon the future; and to value acts as they will bring us, in one word, PROFIT. We must be what is called respectable, and offend no one by our carriage; it will not do to make oneself conspicuous—who knows? even in virtue, says the Christian parent! And we must be what is called prudent and make money; not only because it is pleasant to have money, but because that also is a part of respectability, and we cannot hope to be received in society without decent possessions. Received in society! as if that were the kingdom of heaven! There is dear Mr. So-and-so—look at him!—so much respected—so much looked up to—quite the Christian merchant! And we must cut our conduct as strictly as possible after the pattern of Mr. So-and-so; and lay our whole lives to make money and be strictly decent. Besides these holy injunctions, which form by far the greater part of a youth's training in our Christian homes, there are at least two other doctrines. We are to live just now as well as we can, but scrape at last into heaven, where we shall be good. We are to worry through the week in a lazy, disreputable way, but, to make matters square, live a different life on Sunday.

If you teach a man to keep his eyes upon what others think of him, unthinkingly to lead the life and hold the opinions of the majority of his contemporaries, you must discredit in his eyes the one authoritative voice of his own soul. He may be a docile citizen; he will never be a man. It is ours, on the other hand, to disregard this

babble and chattering of other men better and worse than we are, and to walk straight before us by what light we have. They may be right; but so, before heaven, are we. They may know; but we also know, and by that knowledge we must stand or fall. There is such a thing as loyalty to a man's own better self; and from those who have not that, God help me, how am I to look for loyalty to others? The most dull, the most imbecile, at a certain moment turn round, at a certain point will hear no further argument, but stand inflexibly by their own dumb, irrational sense of right. It is not only by steel or fire, but through contempt and blame, that the martyr fulfills the calling of his dear soul. Be glad if you are not tried by such extremities. But although all the world ranged themselves in one line to tell you "This is wrong," be you your own faithful vassal and the ambassador of God—throw down the glove and answer, "This is right." Do you think you are only declaring yourself? Perhaps in some dim way, like a child who delivers a message not fully understood, you are opening wider the straits of prejudice and preparing mankind for some truer and more spiritual grasp of truth; perhaps, as you stand forth for your own judgment, you are covering a thousand weak ones with your body; perhaps, by this declaration alone, you have avoided the guilt of false witness against humanity and the little ones unborn. It is good, I believe, to be respectable, but much nobler to respect oneself and utter the voice of God. God, if there be any God, speaks daily in a new language by the tongues of men; the thoughts and habits of each fresh generation and each new-coined spirit throw another light upon the universe and contain another commentary on the printed Bibles; every scruple, every true dissent, every glimpse of something new, is a letter of God's alphabet; and though there is a grave responsibility for all who speak, is there none for those who unrighteously keep silence and conform? Is not that also to conceal and cloak God's counsel? And how should we regard the man of science who suppressed all facts that would not tally with the orthodoxy of the hour.

The profit of every act should be this, that it was right for us to do it.

R. L. S.

The walk, not the rumor of the walk, is what concerns righteousness.

R. L. S.

For my own part, I want but little money, I hope; and I do not want to be decent at all, but to be good.

R. L. S.

### Little Trips Among the Eminent.

#### FIRST TRAVELLERS ACROSS AMERICA.

Very early indeed in the history of America ambitious souls among the French explorers wished to cross America to the Pacific Ocean, the great Mer de l'Ouest, of which inklings filtered from tribe to tribe, reaching at last the white men in the East; but it was not until 1731 that definite steps were taken.

In that year a plan, outlined in some detail, was laid before the Duke of Orleans. It was proposed to establish three bases of supply to ensure the safety of an expedition, one on the

north shore of Lake Superior at the mouth of the Kaministiquia River, another on the Lake of the Woods, and a third on Lake Winnipeg. How much farther than this the continent extended there was no means of knowing.

As a result Lieutenant La Noue was authorized to begin the work, and actually built a stockade fort on the Kaministiquia, then, for some reason, the work stopped, although the expedition was still kept in mind.

Four years later Charlevoix was ordered by the Duke of Orleans to go to America and gain all possible information in regard to the difficulties in the way. On his arrival he proceeded at once to the Upper Lakes, and, finding it impossible to secure any reliable data in regard to the great lone West, showed some ability in formulating a plan to gain his end by establishing a mission and fur-trading post among the Sioux. It was not the fault of Charlevoix that the scheme miscarried.

As soon as possible a party was organized, with Father Guingané as missionary and La Perrière as chief. It left Montreal in June, 1727, followed the well-known trail to Michillimackinac, then, proceeding via the Fox and Wisconsin Rivers towards the Mississippi, constructed a fort, called Fort Beauharnois, on Lake Pepin. Trouble arrived with the realization that the Sioux were not disposed to be friends but enemies, and so the fort was abandoned.

Then came the Verendryes.

#### THE LA VERENDRYES.

"Rene Gaultier de Varennes," says our historian, "married at Three Rivers, in 1667, the daughter of Pierre Boucher, governor of that place; the age of the bride, Demoiselle Marie Boucher, being twelve years, six months and eighteen days. Varennes succeeded his father-in-law as governor of Three Rivers, with a salary of twelve hundred francs, to which he added the profits of a farm of forty acres; and on these modest resources, reinforced by an illicit trade in furs, he made shift to maintain the dignity of his office. His wife became the mother of numerous offspring, among whom was Pierre, born in 1685,—an active and hardy youth, who, like the rest of the poor but vigorous Canadian noblesse, seemed born for the forest and fur-trade. When, however, the War of the Spanish Succession broke out, the young man crossed the sea, obtained the commission of lieutenant, and was nearly killed at the battle of Malpaquet, where he was shot through the body, received six sabre-cuts, and was left for dead on the field. He recovered and returned to Canada, when, finding his services slighted, he again took to the woods. He had assumed the designation of La Verendrye, and thenceforth his full name was Pierre Gaultier de Varennes de la Verendrye."

Almost from the day when in 1728 he was put in command of a little post on Lake Nipegon, La Verendrye had dreams of reaching the great sea of the West. The stories of the Indians that it might be reached by a great river flowing westward he thought might be true, but he had an idea that such a river might be reached, not through the country of the Sioux, but through the country of the Assiniboines, farther north, the Manitoba of to-day.

It was not until 1731, however, that La Verendrye was authorized to find a way to the Pacific. Even then he must organize the expedition at his own expense, but in return he was given a monopoly of the fur-trade north and west of Lake Superior, which, it was hoped, he could divert to French Canada instead of permitting it to go to the English posts on Hudson's Bay.

On the 8th of June, 1731, with his three sons, a nephew, and a party of Canadians, he left Montreal, and late in August reached the portage between Lakes Superior and Winnipeg. Here the men mutinied, and it was only after a long delay that some of them were persuaded to push on with La Verendrye's nephew, La Jemeraye, to Rainy Lake, the rest, sullen and useless, remaining with La Verendrye at Fort Kaministiquia through the winter.

The next summer La Verendrye started on the projected journey to Lake Winnipeg, but disaster followed disaster. Some of the men deserted; supplies did not come, La Jemeraye died, the Jesuit of the party with La Verendrye's eldest son and a party of twenty Canadians in an attempt to return to Michillimackinac were all murdered by Sioux on an island in the Lake of the Woods.

In 1740 La Verendrye went for the third time to Montreal to ask for aid for his expedition, only to find, as La Salle and Cadillac before him had found in regard to themselves, that enemies had been busy during his absence, and had written to France that he was only anxious about making his own fortune and not at all in the fortunes of his great undertaking,—this in spite of the fact that he had assumed a personal debt of 40,000 livres in the attempts heretofore made. Nor, indeed, had those attempts been altogether futile. In the face of tremendous difficulties he had explored a great region adjoining the Upper Lakes, had diverted a considerable proportion of a rich fur-trade from the English on Hudson's Bay to the French, and had established six fortified posts: Fort St. Pierre on Rainy Lake; Fort St. Charles on the Lake of the Woods; Fort Maurepas at the mouth of the Winnipeg River; Fort Bourbon on Lake Winnipeg; Fort La Reine on the Assiniboine; and Fort Dauphin on Lake Manitoba, all stockade works flanked with blockhouses. In addition he had provided the nucleus for the most important western Canadian city of the future by establishing Fort Rouge on the site of the present city of Winnipeg.

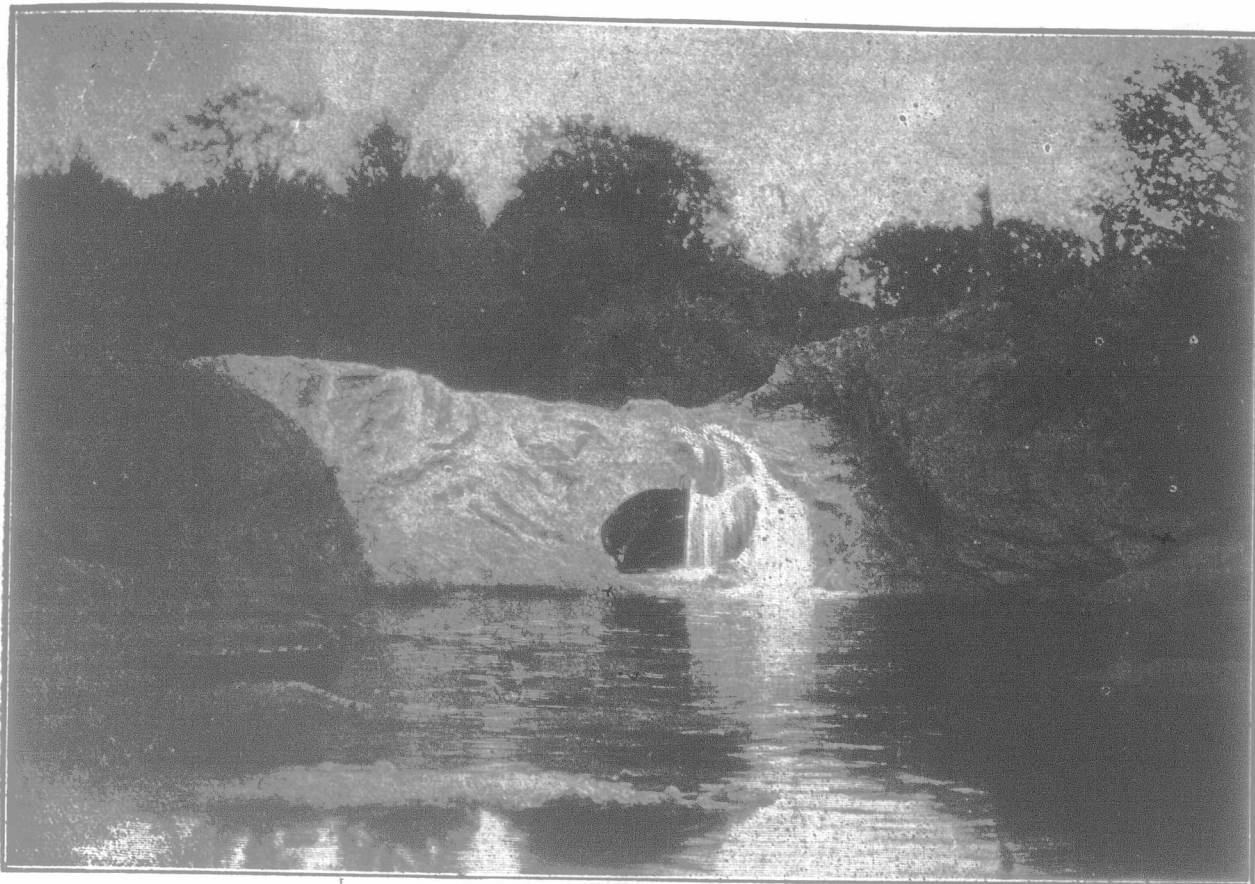
All this, however, was not greatly forwarding the movement towards the Pacific.

Even among the Assiniboine Indians, from whom he had expected reliable information, he could learn nothing authentic. There were great rivers to the west, the red men told him, filled with serpents of prodigious size, and dotted with walled towns where dwelt white men who had knives and hatchets.

Of more importance, apparently, was their assertion that there was a tribe on the Missouri called Mandans, who knew the way to the great western sea.

Lured by this story he left the Assiniboine in October, 1738, with twenty men, and struck across the prairie for the Mandans, his Indians hunting buffalo on the way.

On the 3rd of December the first Mandan village was reached, and great was the excitement among these dusky children of the West, who had never before seen a white man. But misfortune was again to the fore. Some of the Mandans stole his bag of presents, without which he could do little with the Indians; and to make matters worse his interpreter ran off with an Assiniboine girl and he was left without any way of communicating with the Mandans. Before the interpreter's departure, however, stories had been heard of white men to the far west, who went about cased in iron so that, in order to secure them, it was necessary to shoot their horses,—probably Spaniards who had



Beauty Spots in Canada—An Under-current Cave, on Branch of Yamaska River, near Brome, Que.

forced their way up into Southern California.

In the depths of the winter, he himself very ill, he was obliged to return to Fort La Reine, which he reached on the 11th of February, 1739. "It would be impossible to suffer more than I did," he wrote, "it seemed that nothing but death could release us from such miseries"

.....

La Verendrye had left two men with the Mandans to learn the language and prosecute enquiries. In September (1739) these arrived at Fort La Reine with news of another tribe towards the Land of the Sunset who knew of white men near the great sea who "lived in houses of brick and stone, wore beards, and prayed to the Master of Life holding books with leaves like husks of Indian corn,"—undoubtedly the Spaniards of California. The chief had invited the two to go with him to this country, but said a great detour would have to be made to miss a fierce and dangerous tribe, the Snake Indians.

La Verendrye listened with great interest to this story, and, although too broken in health to essay the journey, in the spring of 1742 despatched his two sons, Pierre and the Chevalier de la Verendrye, with two Canadians to make the attempt once more to reach the sea.

On the 29th of April the little party of four left Fort La Reine, and in due time reached the country of the Mandans, with its odd houses made of poles covered with willow matting and covered with clay, so that they looked like round flattened hillocks of earth forty or fifty feet wide.

Securing guides here they pushed on again over the prairies towards the Yellowstone, finally reaching the Bow Indians, whom they found making ready for a war against the dreaded Snakes.

They would show the strangers the Great Water, they said, and so the march began, the two Frenchmen travelling with the swarming multitude—Indians with horses, squaws painted with ochre and arrayed in tunics of fringed buckskin embroidered with porcupine quills, papooses, and Indian ponies laden with camp necessities.

Soon the open prairie was left for a more rugged country of broken hills and deep rivers, where prairie grass gave way to dusty gray-green sage brush.

On the first of January, 1734, appeared the first glimpse of the Rockies, from a point east of Yellowstone Park, and in twelve days the foot of the mountains was reached.

At one point the women and children were left behind and the warriors pushed on, only to find the camp of the Snakes deserted. In a wild panic lest the

tribe might fall on the defenceless women and massacre them, the warriors made a hasty retreat, but found all safe. That night a blizzard set in, and it was determined to return without further molesting the Snakes.

On the 2nd of July, 1743, the Verendrye brothers once more reached Fort La Reine on the Assiniboine.

Sixty-two years later Captains Louis and Clark finished the trip to the Pacific.

Notwithstanding the importance of their explorations the Verendryes received but little reward, either in thanks or enrolments, for their labors. The father, shortly before his death at Montreal, received the Cross of the Order of St. Louis. One of his last acts was to send a large quantity of goods to his trading forts. Afterwards, through evil machinations, the sons were despoiled, not only of this, but of all the forts. Henceforth they were never able to retrieve the blow. "My other brother whom the Sioux murdered some years ago," wrote the Chevalier, "was not the most unfortunate among us." "We spent our youth and our property," wrote the elder brother, "in building up establishments advantageous to Canada,

and after all we were doomed to see a stranger gather the fruit we had taken such pains to plant"

—The old story of so many among the men who lay foundations.

### Hope's Quiet Hour.

#### Exalted by God.

He humbled himself . . . wherefore God also hath highly exalted Him.—Phil. ii: 8, 9.

Our Lord has told us that the road to glory leads through the valley of humility: "Every one that exalteth himself shall be abased; and he that humbleth himself shall be exalted." That was the road to glory in His own case. He humbled Himself and submitted to the death of the Cross, therefore God also hath highly exalted Him. Christians of many different opinions unite in celebrating the Birth, Death and Resurrection of their Lord, how is it that the churches

are nearly empty on that other great day—forty days after Easter—which has for many hundreds of years been set apart to commemorate His Ascension? Is it because people fancy that the crowning triumph of their Champion was a matter of little consequence?

We pray, in the Collect for Ascension Day, that we may "in heart and mind" ascend with our King and dwell with Him continually. Let us not forget that the way to heaven lies through the valley of humility. The way is not an easy one, and does not look very attractive.

A few days ago I was in a great church which was filled with people. The choir sang with pathetic sadness those words which have sounded their solemn warning through all the Christian ages: "He hath filled the hungry with good things: and the rich He hath sent empty away."

The people had crowded into the church until every available seat was filled. Were they very hungry for spiritual food, or were they only eager to hear the magnificent new organ? Only God knew, but I was quite sure—as I heard the familiar words so beautifully sung—that those who were really hungering for God and holiness would not be sent empty away.

People often declare that they get no good from the church services. If that is true, then it must be because they have no healthy appetite for spiritual food. Those who are satisfied with their present condition—like the Pharisee in the parable—are sent empty away. They seek nothing from God, is it His fault if they find nothing?

One woman, whose sickness had not been accepted cheerfully and meekly, said: "My troubles have done me no good; they have only hardened me." Was that not her own fault? Troubles are only the road to exaltation when they are bravely endured. God does not make people saints by force. There is no royal road to holiness. A king, as well as a slave, can only be exalted "unto the same place whither our Saviour Christ is gone before" if he is humble in his own eyes. It is possible for a man to congratulate himself on his high position in the world, on his gifts to the needy, and on many other things which seem to him of great value—and yet he may be very far indeed from the glory of God. The Church of the Laodiceans thought itself very rich, and in need of nothing, not knowing that it was "wretched, and miserable, and poor, and blind, and naked." Those who approach God in that self-satisfied spirit cannot fail to be sent empty away.

If we are to ascend with Christ, and dwell with Him "continually," we must carry our religion into the ordinary business of the week.

It is said that the following words



Beauty Spots in Canada—A Picturesque Curve.

were found engraved with a chisel on a stone in the Far East:

"Raise the stone, and thou shalt find Me. Cleave the wood, and there am I."

Christ is ready to meet His disciples in the midst of their everyday work, as He showed Himself to the seven fishermen who had toiled at their trade all night. A successful business man used to say: "I have made it the rule of my life to give a man the value of his money, and I have known no one who has succeeded on any other principle." It is possible that he might succeed in gaining millions, but he could never win any real glory through defrauding his fellows of their just due. This principle holds in small things as well as in great.

It is a small thing to win the praise of men, but no one can really be exalted by God unless he is worthy of honor. One person may outwardly be strong, yet inwardly be weak and self-indulgent; while another may be a helpless cripple all the days of his earthly life, yet may have grown strong and beautiful in soul through years of brave endurance. Wealth, physical strength, and beauty, social position, etc., do not belong to the people to whom they are lent for a time. They may be taken away even in this life, they certainly must be left behind at death; but treasure laid up in heaven, spiritual strength, beauty, and rank, really belong to the soul, and neither accident nor death can take them away. The more closely we look into these things the more plainly we see that the invisible is the real substance, while the visible is only a shadow or picture of it. Let us then set our hearts steadily on realities rather than on shadows. Christ is the Ladder linking earth with heaven through the Ascension, as He linked heaven with earth through the Incarnation. Although we are, for a time, forced to remain here on earth, He will gladly bear us company; and although He has ascended into heaven, we may "in heart and mind thither ascend, and with Him continually dwell."

Jacob fell asleep in the lonely wilderness, and he saw in a vision the great ladder which was the King's Highway, on which His messages passed to and fro. Our Lord has declared that He is the Way, and He is here. The place where you stand is—like Jacob's Bethel—the house of God and the gate which leads into heaven; and the gates are open day and night. From the rush and roar of a busy city street the soul can climb the ladder—it surely was not placed only for the use of the angels—and kneel humbly before the King of Glory.

"Cry; and upon Thy sore loss  
Shall shine the traffic of Jacob's ladder  
Pitched between Heaven and Charing  
Cross."

Life need not be dull and humdrum. A few days ago I saw a big, heavily-laden dray, and above the head of each horse nodded a pink rose. It probably was an artificial flower, but at least it showed that somebody was able to add a touch of beauty to work. The same day I saw a garbage cart drawn by a horse decorated with a cockade of gay ribbon. Doctor Cabot, of Boston, has described, in a book recently published, a railroad conductor who usually carried a rosebud or other flower between his lips when on duty—adding a touch of grace to a monotonous task. The doctor says: It sounds expensive; perhaps he was a disguised millionaire, and gathered the blossoms in his own greenhouse every day. Anyway, he carried the perfume and fresh beauty of somebody's greenhouse into those dingy cars every day throughout the winter that I rode with him."

God has hidden a secret glory in every commonplace duty. We may live in the light of His felt Presence if we choose. God hath highly exalted our Elder Brother, and we may "with unveiled face reflect His glory as a mirror, being transformed into the same image from glory to glory."

No duty can be dull if we do it for Christ and in His strength, with eyes and heart uplifted to Him. We shall grow like the Friend we are living with.

"For when I draw myself apart  
From things which make my vision dim,  
Deep in the silence of my heart  
He meets me, and I speak with Him."

DORA FARNCOMB.

## The Roundabout Club

### "A Man's a Man for a That."

(Written by M. S. C., Elgin Co.)

LITERARY SOCIETY.—STUDY IV.

When I was working in Toronto I got a great deal of experience and twenty-five cents an hour. The story I am going to tell is more or less true.

Pete, the Irish foreman, was at the work-bench grinding the valves of a gasoline engine. I was renewing the steam-fittings of an old steam engine. Just as I was coupling the last union, the bookkeeper opened the door of his office and said, "Pete, Mr. Graham wants you to go up to St. Clair avenue and fix Jackson's hoist. There is something wrong with the lifting-clutch. You will understand when you see it." Then he closed the door, leaving Pete singing, "For they say that Annie's lousy," and collecting his tools. I knew why Pete was happy. Anyone would who had ever worked in a city machine-shop and was given the chance to go out into the warm, pure sunshine of a bright May morning.

I was just cleaning my tools after finishing the engine when the bookkeeper again opened the door. As I was out of sight behind the engine, he yelled, "Jack, oh, I say, Jack, the boss wants you in the office right away. Make it snappy now!" I did make it "snappy," for I hoped I would have a chance to go out on a job. Just as I entered the back door of the office, a young, very dark darkey, came in the front door.

Mr. Graham turned to me and said, "Jack, I want you to go down to the Grand Trunk freight yards and unload a car. Take the tools you expect to need, and hurry. Get a team from Hendrie's man, and send up that six-horse-power gasoline engine on the first load, for it has to go to Hamilton on the 2 o'clock boat. Hey, Bookkeeper! give Jack the number of that car from Galt and two car tickets."

I went into the inner office while the bookkeeper hunted for the car number. It was then that I heard Mr. Graham say, "Well, sir, what can I do for you?"

"I want a job, sah."  
"What's your name?"  
"Charles Featherstone Davis, sah. Born in Cuba. Late of New York, sah."

"Are you married?"  
"Yessah, and I've got one chile."  
"Will you work hard?"  
"Yessah, Boss, any man will work when he's wife and chile's a' starvin'."

"Alright, Charles, I'll just give you six dollars a week to keep things tidy around here. If you have any spare time, Pete will let you help set up machines. When you know all about them, I'll get you a job outside. When can you start, sir?"

"Right away, boss; right away. I'll have ma overall here right after dinner."

Just then I got the car number and the tickets and started for the freight yards.

Somehow the sun didn't shine just right. The freight yards were more than dusty. I wondered what had put the damper on my spirits. At last I said to myself, "It's that darkey! Just think; I came to the city expecting to find culture and education. I wonder what the people around home would think if they knew who one of my shop-mates was. I don't know anyone in this city except the people I meet in business, and how can I possibly make any decent acquaintances?"

(I didn't know then that the church was the best medium of social intercourse.) It was then that it dawned upon me that the city was not just all it was cracked up to be. Then I consoled myself by remembering that almost all great men had started in humble positions. I had the chance in a short time to be a "Knight of the Grip" at one hundred per. and expenses.

I finished my work on the car and hurried back to the shop. It was almost noon. The boys were cleaning up to go for lunch. Of course, they were talking of the new man who was to

come, for Mr. Graham had told Pete about him. None of the boys seemed to relish the idea of working with a darkey. Pete especially was very abusive, for he said, "Holy smoke! If the boss expects me to work with a nigger he is mistaken. Just fancy taking a tar-baby out with you on a job! I'll be hanged if he'll stay long, though, for I'll work the d— out of him. All niggers hate work worse'n pizen."

A month passed by and Charley became very popular with everyone in the shop but the foreman. He was very funny, and would do anything to please us. We all tried to make Pete like him, but it was of no use. Pete would never speak of him unless he called him the tar-baby, or give him an order without adding to it some insulting remark.

The reconciliation came on June the ninth. I well remember the day, because that day I left the city for the farm, realizing that there was "no place like home," especially if home happened to be a farm.

Pete came out of the office and put his tool-bag into the auto-truck. Then he came over to where I was working and said, "The boss says we are to take that number one hoist down to George street and have it working by noon. The derrick is up already, so we can work fast. Tell that Ethiopian he had better come, too."

In a short time we were on the job and had the machine set and anchored. When we had the cable threaded and the cage working, we found that the derrick was about an inch too wide in one place. Pete said he could fix it in a minute, so I hoisted him to the proper place, which was about thirty feet from the ground.

As Charley and I stood near watching the foreman, a carpenter who stood near exclaimed, "Say, boys! isn't that cable slipping through the clip just above the cage?" We looked. It was slipping. In ten seconds it would free the cage and Pete would fall. I was too frightened to speak. Not so with Charley. He spoke very clearly and calmly. "Hey, Pete!"

"What the d— do you want now?"  
"I just wants you to take a hold of the derrick, cause the cable is slipping. Don't spring!"

Just as Pete grasped the derrick with one hand the cage fell. Pete was safe, but very scared. He climbed slowly to the ground, and walking over to Charley he said, "Charley, old boy, I've been using you pretty mean. Shake hands, will you? You're black, but it only goes skin deep." Charley answered as he grasped the outstretched hand, "That's right, Pete. The boss says a man's a man if he's black, yellow, red, or tawny."

The foreman didn't say much more, but he "looked" a lot. Presently he seemed to remember something, and putting his hand in his pocket he pulled out a cigar and gave it to Charley. Charley turned to me. "Say, Mr. Jack, will you do me a favor?" (Charles sometimes mixed his words.)

"Yes, sir. What will you have?"  
"Ah just wants a match, sah."  
Then, when he had thrown the match away, he shook his curly head and said, "Boys, this am one very happy coon."  
M. S. C.

## A Simple Love Story.

Written for Study IV., by  
"The Mistress of Rose Terrace"

I see by last week's Advocate, that those who are interested in The Roundabout Club, are asked to write a short story for Study IV., and I said to myself "Directly or indirectly they will all be love stories no doubt." The next thought that came to me, was why not? On what grander, nobler, more glorious subject could one write? God is Love, and love is the controlling power of the Universe.

It is impossible for us to imagine the state of affairs if ALL love were to be banished from our hearts. As the soft warm rays of spring sunshine draws out and reveals the marvellous beauties that lie hidden in the heart of Nature after the long dreary winter, so when love enters the heart, it searches out and reveals all that is purest, holiest and best, in us. It is for the lack of it, not be-

cause of it that there is so much misery in the world and so many divorce cases in our courts to-day.

I am going to tell you a little romance, not because it is wonderful, but simply because it is true; but I must start at the very beginning, and to do that I must take you back to the old farm away up—well never mind where; I am only going to tell you the story.

It was not a very happy home. The father was one of those irritable, fault-finding natures, that are rarely happy themselves and make things decidedly unpleasant for others. The older children in the family did not seem to mind his moods, and took them quite as a matter of course, but they were a continual source of dread to the youngest, a delicate child, with a timid dreamy disposition.

Unlike most children she loved solitude, and although she did not realize it at the time, she knew when she looked back in the after years, that Nature herself folded into the innermost recesses of her being a love of the ideal and the grand and noble, and although other influences entered into her life, she never entirely forgot the lessons.

One day when the home atmosphere seemed unusually clouded, she wandered into the woods near her home, and throwing herself down at the foot of a huge old maple gave herself up to reflection in her own childish way. Thought after thought crowded in upon her puzzled brain, till one more startling than all the rest stood out clearly before her. "Some day I shall be a big woman and then I shall be married of course, like all the other women, and if my husband is cross and finds fault all the time what shall I do?"

For a long time the little brain strove to find an answer, but in vain, till at last came a thought so white and pure that it might have been a bit of down that was loosened from the wing of a passing angel, and fluttered down, down, through the blue sky, through the green leafy branches and settled itself with a little sigh of contentment in the childish troubled heart. "God is my father and He knows all things and controls all things," and immediately a host of thoughts grouped themselves around that one central thought. "If God knows all things, then he knows whom I will marry when I get big, and He knows too where the boy is now and what he is like, and I am going to ask Him to make him a good boy and keep him good always," and suiting the action to the thought she sent up a simple trusting prayer, to the only One she could think of to help her out of her trouble.

It seems to me the petition must have caused a smile when it was presented, but not a scornful smile. I see the Father bend low to listen, and the smile that illumines His face fills the angels with wonder, and they catch the softly-murmured words, "Bless you child, Father will see to it."

An echo must have floated down through the tree-tops, bringing with it comfort and peace to the troubled heart and the child went back to her play with a feeling of peace and confidence.

The years passed one by one, and the child had grown to be almost a woman, when a new experience came to her. She was rather reserved and did not make friends very readily. A young man had recently started in business in the town in which she lived, and he soon showed a decided preference for her company. He himself was entirely respectable and his family were highly thought of in that neighborhood, and soon her friends began laughingly to congratulate her on her future prospects, but she steadily refused to admit even to herself that he could be seeking anything but companionship with an unsophisticated girl of eighteen.

One evening as they sat together on the steps in front of her home his arm slipped round her.

"No," she said trying to push it from her, "you must not do that."

"Why not," he asked laughingly. "Because," she answered, "we are not engaged, and that is only a lover's privilege."

"Why can we not become engaged then?"

"I do not know, but I do not think I can care for you in that way. I like

you as a friend, but I am afraid I can never learn to care for you in the way you ask."

"You must," he said fiercely. "Life would be a blank to me without you." The June night was soft and balmy, but the girl was shivering from head to foot, and she felt that she must be alone. She had come suddenly to the turn in the road, and her whole future depended upon the direction she took now. As soon as she could she dismissed him and crept softly up the stairs. She did not light a light, but seated herself at the open window where the soft night air caressed her throbbing temples.

What should she do? It was useless to go to mother, sister, or friend for advice for she knew they were all strongly in favor of it, and why should it not be she asked herself. "He is able to give me a good home; we are both members of the same church; and I like him as a friend; what more do I want? This thing they call love may be only a trick of the imagination, and what right have I to make this man miserable? I do not care for anyone else, and it is a very great chance if anyone else will ever care enough for me to do me the honor of asking me to share his life. Would it not be better then to bring my imagination to the rescue, and try to make myself believe I am in love and make the man happy? But somehow she seemed like one alone in a strange place surrounded by thick darkness; she dared not take one step in any direction for fear of stepping over the brink of some awful precipice; but once more that little white-winged thought fluttered down through the silver moonlight and nestled in her heart. "God is my Father, and He controls and knows all things and I will ask him," and once more she knelt and poured out her heart something after this manner: "Father, Thou knowest all about my perplexities. Thou knowest how small and weak I feel when brought face to face with this question which concerns not only my future happiness but that of another as well. Thou knowest I have no desire to sacrifice another's happiness, but the future is all dark and mysterious to me. Thine eye alone can pierce its mysteries, therefore, I pray Thee, as well for his sake as my own, that Thou wilt give me the wisdom to choose wisely."

She arose from her knees and lifted the Bible longing for some message of cheer. She opened it at random, and her glance fell upon 1st Kings, 3, where God had asked Solomon what He should give him, and Solomon asked wisdom, not only for himself but to use in dealing with his people, and the choice pleased God, and he granted his desire. Was not this exactly what she had asked for, not for herself alone but to deal with another as well? and again the trust and confidence of childhood came back to her, and she slept with the "peace of God that passeth all understanding" in her heart.

The days glided by; the two met often but the subject was not renewed for some time, yet day by day a firm conviction was setting in her heart that they were never intended for each other. She was willing and glad to be friends in the ordinary way, but when it came to admitting him into the innermost circle of her life she knew it was an utter impossibility. She was just beginning to realize that there were depths in her nature that even she herself had no knowledge of; and this man had never awakened even a ripple on the surface; how then could he ever sound the depths?

She saw clearly now that her life had been given her only in part and that the work of completion was given to another, but somehow the soul nature would not respond to the touch of this man.

After a time he pressed his suit again, but there was no hesitating in her refusal this time. She had been given the wisdom to think, decide and act.

"But why do you refuse me?" he demanded, "am I not good enough for you?"

"Yes, but I do not believe that God ever intended us for each other."

"What has God to do with it?" Then seeing the look of surprise he muttered

something about other people using their influence. After several more interviews, painful to both, he went for a visit to his old home, and there renewed the acquaintance of an old school friend to such good purpose that she had already purchased most of her wedding outfit when the news reached his former friend.

Soon after he returned to town and shortly after that made a call at her home one evening. She received him cordially and they spent a pleasant evening. At its close she rose to accompany him to the door. They had avoided all disagreeable subjects, and she was debating in her own mind as to whether she should congratulate him or not. Would it seem a mockery coming from her? At last she held out to her hand. "May I congratulate you?" she asked.

His fingers closed over her hand as he replied, "Oh that will never be I guess. Not if you will have it the other way."

She drew back her hand and a pain shot through her heart like a barbed arrow. This then was the man who had asked her to share his life. This was the man for whom she had shed hot tears of sympathy. This man who had lightly won another's heart and hand to serve his own purpose. What was that purpose? Did he think she

She could not have told then nor could she tell now why she did it, but she never received a pre-arranged call after that that she did not ask God's presence in the interview. It was a long time afterwards before she cared to confess it to him, but when she did she was rewarded by a similar confession from him.

At last one evening, came the sweet old story told in a few simple words, and the same old question that men will ask, and women will answer, to the end of time no doubt.

"I do not feel that I can trust entirely to my own wisdom in answering your question," she replied, "I must feel sure of God's will in this matter."

"That is the best answer you could have given me."

When the question was repeated sometime later an answer given in affirmative he said, "Let us kneel together and ask God to bless our new relation."

Is some one asking, "did they live happily ever after?" Well, I have been in, and out of a great many homes and I think on the whole there is less friction, less jar and discord in that simple unpretentious little home than any I ever entered. He is still the lover. She is undemonstrative by na-



How Many Did You Catch?

had been trifling with him and would relent if she thought he would turn his attention to another? Did he suppose that, even had she worshipped him she would have allowed him to break his faith with another? That thought rankled worst. To think that this man who had done her the honor (?) of asking her to be his wife, had no higher opinion of her than that, after all. She had wanted to keep the memory of their acquaintance always; to think of it sometimes as one recalls some sweet soft melody, but it had ended in harsh discord. "No," she said, "I do not wish it the other way," and opened the door for him to pass out.

The days, weeks and months glided into years and she did not lack for companionship, but none of them ever went beneath the surface, until at last came one who seemed from the first to differ from all the others.

After a time he asked permission to call at a certain hour on a certain evening, and it was granted. She had no reason to think it was other than a friendly call, but to her a friendship even with this man was a sacred thing, and before she went down to meet him that evening she knelt and asked the Father's blessing on this new friendship.

ture, but the tiny stream of love that rippled and eddied in the sunshine and the days gone by has cut a channel through her life so wide and deep that the stream flows silently. Sometimes the sunshine glitters over its surface, and sometimes, too, a shadow is flung across it, but the river is still there gliding swiftly and silently to the very shores of eternity.

This, then, is the story I wanted to tell you, not, as I said at the beginning, because it was wonderful, but in the hope that if it was ever printed it would perhaps wield an influence over some of our young readers. God never intended that we should have to take chances on anything in this life. He is willing to lead us, but we must not get impatient and get ahead of our leader, because then we stray away, and God has often to alter his original plans for us in order to overrule our own simple mistake.

John Bright used to tell how a barber who was cutting his hair once said to him: "You 'ave a large 'ead, sir; it is a good thing to 'ave a large 'ead, for a large 'ead means a large brain, and a large brain is the most useful thing a man can 'ave, as it nourishes the roots of the 'air."

## The Beaver Circle

### Our Junior Beavers.

[For all pupils from First Book to Junior Third, inclusive.]

### Junior Beavers' Letter Box.

Dear Puck and Beavers,—This is my first letter to your Circle. My father just began to take "The Farmer's Advocate," and I am very glad to read the Beaver Circle when it comes. I am ten years old, and am in the Senior Second class. I go to school whether rain or shine. My teacher's name is Miss Lois Russell. I have one and a half miles to go to school. I have two sisters and five brothers. My sister and I take music lessons, and we play duets together. My sister is a year and a half older than I am. As my letter is getting long, I guess I will close.

FLORENCE TOTTEN.

South Woodlee, Ont., R. R. No. 1.

Dear Puck and Beavers,—This is my first letter to your Circle. We live on a farm of 120 acres. For pets I have two cats; their names are Fluffy and Snowball, and two dogs; their names are Collie and Carlo. Collie is a little pup. He is cute, and he comes to meet me every night when I come home from school. Our teacher's name is Miss Tenn Holmes. We all like her. I have a brother going to high school; he is in the Third Form. Good-bye.

MILDRED I. THOMSON.

Dear Puck and Beavers,—My father has taken "The Farmer's Advocate" for a number of years, and likes it fine, and I always read the Beaver Circle with interest, but never could pluck up courage enough to write. I would like very much to become a member of your Circle. I live on a farm of one hundred acres, and am just across the road from school. Our teacher's name is Miss Macklin. She boards at our place, and we all like her. There are two railroad tracks running through our farm, the C. N. R. and the new C. P. R., and that cuts it up considerably. I have a sister older than I, and a brother younger. My sister and I go to school, but my brother hasn't started yet.

We got hockey boots and skates last winter and learned to skate.

I will close now, hoping that hungry w.-p. b. will not want to swallow this letter when it arrives. I remain an interested reader.

JEAN M. STIRLING (age 9, Sr. II).  
Agincourt, Ont., R. R. No. 1.

Dear Puck and Beavers,—My father has taken "The Farmer's Advocate" for a number of years, and he likes it fine. I have a little sister two years old. Her name is Margaret Pearl; we call her Margaret. I go to school every day I can. I am in the Second Book. Our teacher's name is Miss M. McGregor.

I go to Sunday school and to church about a mile away. I guess I must close now, so good-bye.

MARY McDONALD (age 7).

Kippen, Ont.

Dear Puck and Beavers,—As I did not see my first letter in print I thought I would try again. My father has taken "The Farmer's Advocate" as long as I can remember, and as soon as it comes into the house I look up the Beaver Circle. It is very fine in Algoma; the lambs are skipping around. Well, I will close this time, hoping this will fare better than my last letter.

CHARLIE ROBINSON.

Plummer, Ont.

Dear Puck,—I like to read the Beaver Circle letters very much. We live on a farm of two hundred acres. I go to school about every day, and like it very much. I am going to copy some verses:

CLOVER.

"Some people love roses well,  
Tulips, gaily dressed,  
Some love violets blue and sweet,—  
I love clover best.

"Though she has a modest air,—  
Though no grace she boast,  
Though no gardeners call her fair,  
I love clover most.

"Butterfly may pass her by,  
He is but a rover,  
I'm a faithful, loving bee,—  
And I stick to clover."

EDNA ACRES (age 10, Jr. II).  
Vernon, Ont., R. R. No. 2.

The Ingle Nook.

[Rules for correspondence in this and other Departments: (1) Kindly write on one side of paper only. (2) Always send name and address with communications. If pen name is also given, the real name will not be published. (3) When enclosing a letter to be forwarded to anyone, place it in stamped envelope ready to be sent on. (4) Allow one month in this department for answers to questions to appear.]

Dear Ingle Nook Friends,—The other day I was much amused over a sentence that came floating into my den from across the hall. The editorial rooms almost adjoin, and in the nearest one to the Ingle Nook sanctum two of the "sturdies," the "heavyweights" as the printers call them, comparing them with my more diminutive self, drive away with pens over much littered desks, growl at the weather when it becomes too hot, and incidentally, we hope, help to raise the banner of better agriculture over half a continent.

The day was hot. Heavy trucks were rumbling past along the street. The roar of machinery from the workshops was monotonous. Inspiration wasn't descending freely anywhere.—Then out of the jar and rumble of it all came a voice, a voice from one of the sturdies, "Hang it all I can't get past the start of it."

If you have ever been a "writer," if you have ever struggled over essays at school, you will know why I laughed a little laugh to myself.—It's so easy not to be able "to get past the start of it."

This morning I have been in the same case. I have filled a waste-paper basket with sheets on three separate topics, and here I am back to "California John." Can you bear with him a bit longer?

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"Everything's important," says he. "I don't believe one thing's more important than another, if a man's doing what he likes."

Perhaps you don't believe that. Your routine of life seems trivial. Preaching seems more important to you than farming, practising medicine more important than store-keeping; writing books more important than bending over a cookstove, and teaching in college halls more so than washing children's faces and getting them off to school.

But are these things more important? That is the question.

Personally I have come to the conclusion that they are not. Lie low and listen, open your eyes wide and look, and you will discern everywhere a great continuity in things all over the earth. This depends upon that, that upon this; snap one cog and, more or less, the whole fabric goes to pieces. Think of what it would mean to the world if the cooks went on strike, or the washers of little children's faces!

To our limited vision the work of the very eminent preacher or statesman or writer may seem immeasurably more important than that of the mass of workers,—and, truly, we must not underestimate the influence of these, our great ones, flaming lights of inspiration, breathers of benediction; we must hold close our hero-worship. Nevertheless it may be that in the reckoning of the Infinite all faithful souls are equal, whatever their work, for all are necessary. Another term of the cycle and the less spectacular workers, the plodders of to-day may be having their turn. We do not know what the future may have in store for us, though that future may not be un-

til, as the Japanese say, "we have changed our world."

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Even leaving all that out of account, one cannot but have noticed this, that to many of the greatest minds every little thing is important. Have you never noticed how invariably INTERESTED most of the greatest people are in everything that chances to come up? This great man shows you his garden, the work of his hands, with a pride that fairly beams; that one is proud of his carpentering; another of putting a good shot at golf; and so the story goes. Now can't we all learn the lesson, adopt the faculty of being interested as we go, interested in the work for the work's sake? This thing that we now do is important; next hour, or to-morrow perhaps, we shall do something else, and that will be important also.

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—But California John puts in a proviso. "One thing is not more important than another," he says, provided a man is "DOING WHAT HE LIKES."

Now California John is thinking of just the routine duties of plain living, and, applying his philosophy to the odds and ends of work in every house and on every farm, may we not reasonably query, why dislike doing anything? Why not be interested in everything as it comes, whatever it be, seeing that oneself does not change? A Doctor of Philosophy hauling out manure for his strawberry bed is a Doctor of Philosophy still, with Doctor of Philosophy thoughts; Tolstoi in his coarse peasants' blouse, driving a plough (badly, it is true) is Tolstoi still, the same man who wrote "War and Peace," "My Religion," and "What Shall We Do Then?" It's the mind of the man that counts. Put it in the right attitude and nothing else matters, everything is dignified and glorious.

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Of course there is another sense in which "doing what one likes" must be considered. I do think that choosing one's life-work involves a mighty responsibility. For our life-work we positively must have what we like to do, if we are to realize our best selves and justify our existence here on this wonderful, mysterious earth.

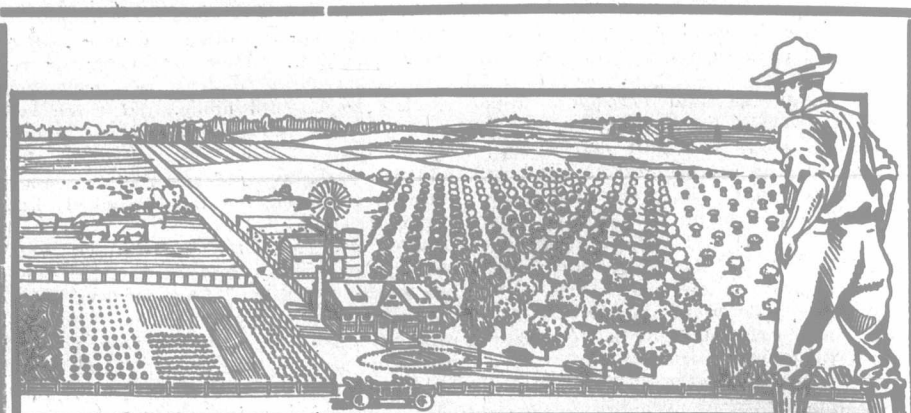
Among the clinging memories of the past in my own life is one of an address given by the late Professor Fletcher, Entomologist and Botanist at the Central Experimental Farm, to an enthusiastic group of young students in Ottawa. His subject was "Choosing a Vocation in Life," and with all the emphasis of which he had command he advised the listening young men and women never to be satisfied until they had found the niche for which they were best fitted. "You must like what you are doing," he said, "or you will be more or less a failure in it. Try to make no mistake in regard to what your life-work is to be, but, should you chance to make a mistake retrieve it. It is no disgrace to turn from one thing to another; the disgrace exists rather in remaining in any position which one cannot fill adequately, happily, and enthusiastically." . . . Illustrating from his own experience, "This country is paying me," he said, "for enjoying myself all the time;"—and those of us who had been taken by him on enthusiastic botanical trips, to Rockliffe, to Chelsea, and elsewhere, knew how truly he spoke.

The majority of the people are born with some especial possibility of fitness. It is the part of wisdom to search until that fitness is found.

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"But," says someone, very probably a tired mother—"My day of choosing is past. I had a talent. Instead of developing it I married. Now there is no time."

Perhaps there is a half regret in the thought,—and yet—and yet—suppose some fairy were to come along with the power to change things, would you, tired mother, submit to the change? You would have to give up your home, your husband, your children, who have come into your life. May it not be that, after all, a great part of us are like the pilgrims of the Middle Ages, after exchanging their old lives as they trudged along were glad to get, each of them, after a while, to have back his own? There are many things in the life of



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- 100 Acres,** Raleigh Township, Kent County, near Blenheim and Chatham—Convenient to churches, stores, cannery, creamery, telephone line; on good gravel road; soil, gravel and gravel loam; sub-soil, clay and gravel eighty-five cultivated, ten meadow; fifteen pasture, three bush (no value); level and used for mixed farming; ten acres orchard (five apples, five peaches), well cared for; good water; two houses; bank barn on cement walls. Price..... **\$17,500**
- 147 Acres,** Hawkestone Station—Part of this property planned for summer cottages, balance good farm suitable for either grain, stock or dairying; some orchard and well fenced; splendid water; brick house, stone cellar, shingle roof; good bank barn. Price **\$18,000**, would sell one hundred acres for farm purposes at \$100 per acre. Easy terms.
- 200 Acres,** Pickering Township, twenty miles to Toronto—Convenient to schools, stores, churches; good gravel road; clay loam, sub-soil clay; all cultivated; slightly rolling, suitable for grain, stock, dairying or fruit; two acres old orchard, fourteen acres new (three years), all winter varieties; also currants and raspberries; good water, four wells, creek and spring; water in stable; brick house, stone foundation, ten rooms; bank barn on cement walls; stabling for eight horses and fifty head of stock; two silos; other house and outbuildings not in good condition. Price.. **\$30,000**

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each of us, no matter how busy, no matter how circumscribed. In searching these out and proving them lies, perhaps, the happiness which we are missing, the exorcism of the vague, restless longing which says, "My life is narrow; I have missed my opportunity." There is a plural of opportunity—"opportunities." Mayhap if we search for them—

for opportunities—we shall find them thick enough along our way.

JUNIA.

"What is the difference between work and joy? Surely work should be joy. If your work is not so, you have not yet found your place in the world."—Philip Oylar.



**RE PICTURES.—QUANTITIES FOR WEDDING.**

Dear Junia,—Will you please inform me what subjects for pictures you think nice for a living-room and dining-room? I have one family group, where would you put it? Also pictures of Christ and the Madonna, and landscapes. In the parlors I have all oil and water-colors in scenery but one, and that is a print of the chariot race.

I read in the paper a few weeks ago, some person asking for quantities for a wedding next year. Here is a list I saved from my last party.

For a party of 65 persons:—8 loaves bread, 2 lbs. butter, 5 bottles olives, 4 packages gelatine for jelly, 8 chickens,  $\frac{1}{4}$  of a ham, 8 lbs. beef, 3 lbs. fancy cakes, 1 batch kisses, 2 loaf chocolate cakes, 2 loaf white cakes, 4 layer cakes, 4 freezers ice cream, 5 lbs. candies, nuts.

That is plenty, so as to have a little left, and as we have made a great many parties you can depend on it for being plenty.

Norfolk Co., Ont. MABEL.

Put your best-loved and most helpful pictures in the room or rooms where you will see them most. The choice must depend upon your own taste. It is usually better not to hang oil paintings and water colors on the same wall, as the former are likely to kill the effect of the latter.

**LAWN SOCIAL.**

Dear Junia,—Please publish in your paper as soon as possible amusements suitable for entertaining a crowd at a private lawn social, and also what would be suitable for refreshments. Thanking you in advance.

Huron Co., Ont. PRIMROSE.

Is the lawn social to be a small affair made up of invited guests? If so, when sending out the invitations request the guests to come dressed to represent some character. Guessing the characters, will, you see, provide part of the entertainment. Have the trees and porches hung with Japanese lanterns, in profusion, arrange for good music, and don't forget a fortune-teller's den in which your most talkative friend, dressed as a gipsy, will make merriment.

The supper may consist of sandwiches, cake of various kinds, fruit salad or ice-cream, lemonade and hot coffee.

**QUERIES.**

Kindly inform me in your most useful magazine how to clean a Panama hat?

Also to remove pine gum or pitch which fell from our Christmas tree on a Royal Wilton velvet rug?

Kindly reproduce the article on how to make perfume from flowers, as our paper has been mislaid?

I take deep interest in Dora Farncomb's Hope's Quiet Hour; also enjoy Junia's articles, and Helen's Diary. I have also travelled through Germany, and know that she is certainly enjoying her trip. I wish your paper every success. We could not do without it. My husband got five new subscribers so far this year.

Wentworth Co., Ont. MRS. J. T. C.

It might be safer for you to send the Panama hat to a professional cleaner. However, if you wish to try the operation yourself here are two methods. The first is given by Scientific American.

1. Scrub the hat well with Castile or Ivory soap and warm water, using a nail brush to get the dirt away. A little ammonia may be added to the wash water. Rinse twice, adding a little glycerine to the second rinsing water to prevent the hat from becoming stiff and brittle. Place in the hot sun to dry. If the hat needs bleaching, while slightly damp expose it to the fumes of burning sulphur in a closed vessel. If the hat goes out of shape it will need blocking.

2. Have made at the druggists the following solutions: (a) sodium hyposulphate, 10 parts; glycerine, 5 parts; alcohol, 10 parts; water, 75 parts. (b) citric acid, 2 parts; alcohol, 10 parts; water, 90 parts.

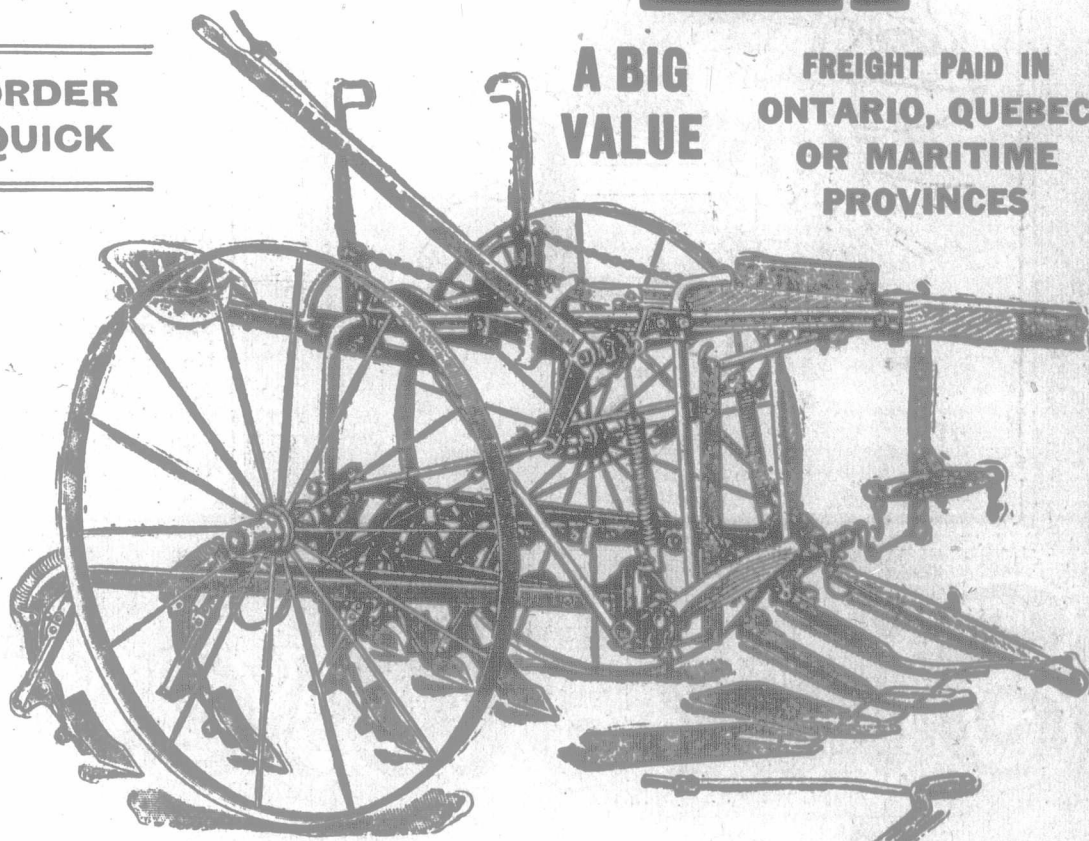
Sponge the hat over with the first solution and leave in a cellar or other damp place for 24 hours, then apply the second preparation similarly. Finally stiffen with parchment size, which consists of gutta percha dissolved in ether, applying it over the hat with a soft brush, and allowing it to dry while in perfect shape. Hats thus bleached do

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**PHOTO ILLUSTRATED Catalogue No. 7**

Hundreds of pieces of the best selected furniture and home furnishings priced at just what they will cost you at any station in Ontario.

**ADAMS FURNITURE CO., Ltd**  
Canada's Largest Home Furnishers **TORONTO**

not turn yellow as soon as those bleached with sulphur.

I have telephoned a druggist in regard to the gum stain. He says to soak it with turpentine to remove the gum, and then apply gasoline to remove the turpentine.

So far we have been unable to locate the article on perfume from flowers. Would you be kind enough to send us the date of the issue in which it appeared.

**CORONATION CAKE.**

Dear Junia,—Could you give me a recipe for making a dark grey switch white. Will close with a receipt for Coronation cake.

2 eggs, 1 cup of brown sugar,  $\frac{1}{2}$  cup of butter,  $\frac{1}{2}$  cup of milk, 1 cup of chopped raisins, 1  $\frac{1}{2}$  cups of flour,  $\frac{1}{2}$  nut-

When writing advts. please mention The Advocate.



### Dainty, Disappearing Doughnuts.

Devoured near as fast as you make 'em.

Golden—tooth-teasing—able-bodied nuts of dough.

Made from dough that Tastes Like Nuts, you know.

Use FIVE ROSES flour.

Get that individual toothsome-ness of Manitoba wheat kernels.

Doughnuts with a Palate-Pleasing Personality.

See 'em bob up in the rich deep fat—swelling, soft-textured.

A hole entirely circled with Light Digestible Food.

Fat without being fat—for FIVE ROSES is the sturdy glutinous flour that resists fat absorption.

Just enough to brown deliciously, to crisp quickly.

No greasiness, heaviness, soggy-ness.

Filling a vacant place so pleasantly with never an outraged stomach.

Like these make YOURS.

Use FIVE ROSES.

# Five Roses Flour

Not Bleached



Not Blended

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## TRADE MARK Wilkinson Climax B REGISTERED

### Ensilage and Straw Cutter

Our "B" machine, built especially for the farmer. A combination machine—it will cut and deliver green corn into the highest silo or dry straw or hay into the mow. 12-inch throat, rolls raise 6 inches and set close to knives—solid, compact cutting surface. Can change cut without stopping. Can be reversed instantly. Direct pneumatic delivery. Knife wheel carries fans. No lodging, everything cut, wheel always in balance. Steel fan case.

Made in two styles—mounted or unmounted. We also make larger type machine for custom work. Ask your dealer about this well-known machine and write us for new catalog showing all styles.

THE BATEMAN-WILKINSON CO.,  
LIMITED

418 Campbell Ave.  
Toronto, Canada



## Ayrshire Club Meeting

Mount Elgin, Oxford County, Ontario  
Wednesday, June 10, 1914

### SPEAKERS.

Prof. H. Barton, Professor of Animal Husbandry at Macdonald College, Quebec.  
Mr. Gilbert McMillan, Trout River, Quebec.  
Mr. G. R. Green, Oxford County, District Representative.

Judging classes will be conducted in the afternoon, when an exhibit of Ayrshires will be made from the herds of the Club members.  
The meeting will be held in the commodious church sheds, while dinner at popular prices will be provided by the "Ladies' Aid."

Mount Elgin is seven miles south of Ingersoll on the C.P.R. Train leaves Ingersoll for the south at 11.30 a.m., returning leaves Mt. Elgin at 5.18 p.m. EVERYBODY WELCOME.

JOHN MCKEE, Norwich, President  
J. L. STANSELL, Tillsonburg, Ont., Secretary

meg, 1 teaspoon of cinnamon,  $\frac{1}{4}$  teaspoon of allspice, 1 teaspoon of vanilla.  
Ontario Co., Ont.

### SUBSCRIBER'S DAUGHTER.

Peroxide of hydrogen is the strongest bleach I know. You might try repeated applications of it on a few hairs of the switch to see how it would work.

### RHUBARB AND ORANGES.

Dear Junia,—Could you tell me how to make rhubarb up with oranges? I tasted it once and it was so good. I thought you would perhaps know the recipe.

With many thanks.

Wellington Co., Ont. ALICIA.

Rhubarb and Orange Preserve.—Peel 6 oranges, scrape off all the white part, and slice, taking out the seeds and cutting out the core. Scrape off the yellow part of the rind and add this after chopping it fine. Mix with 1 pound cut-up rhubarb and 1 $\frac{1}{2}$  pounds sugar, or, if the oranges are sour a pound and a half. Simmer until thick.

### "BEAUTY" QUERIES.

"Golden Locks," Welland Co., Ont., wishes to know what will make the hair stay in curl when taken from kid curlers. I have heard that dampening it with water in which quince seed has been boiled is effective.

"Schoolgirl," asks what to do with her face which burns and smartens after being in the wind. We should advise rubbing in a little good cold cream after washing.

A little cold cream of the "vanishing" kind is best applied before going out in the wind, and followed by a dusting of good powder, will do something towards preventing sunburn.

### Seasonable Cookery.

Rhubarb Bird's Nest.—Batter a plate. Wash the rhubarb, but do not

peel it unless it is past its first tenderness. Cut it in very small pieces and half fill the tin. Make a batter of 1 cup sour milk, 1 cup sour cream, 1 egg, 1 teaspoon soda, pinch of salt and flour to make a stiff batter. Pour this over the rhubarb. Bake for half an hour in a quick oven, and eat with sweetened cream.

Rhubarb Dumplings.—Cut up and cook 1 $\frac{1}{2}$  lbs. rhubarb in  $\frac{1}{2}$  cups of hot water, and 1 heaping cup of sugar. Cook for 7 minutes. Make a paste of  $\frac{1}{2}$  cup flour, scant half cup butter and  $\frac{1}{2}$  teaspoon baking powder, bind together with cold water, roll out, cut in 4-inch rounds. Place 2 tablespoons of the stewed rhubarb in each round, gather up the dough into balls, pinch the edges together, brush with milk and sprinkle with sugar. Bake in a hot oven. Serve with the remaining sauce, to which has been added a lump of butter the size of a hickory nut. Thicken with one teaspoon of cornstarch blended in one tablespoonful cold water. Boil up. Serve hot.

Cornstarch Pudding.—Let 1 quart milk come to a boil, then stir in 3 tablespoons cornstarch which have been blended in cold milk. Have the yolks of 4 eggs well beaten, add  $\frac{1}{2}$  cup sugar, a pinch of salt and a tablespoonful of butter and stir all into the boiling milk very slowly until smooth, then pour into a greased baking-dish and put in oven. When baked and cold cover with a meringue made of the whites of the eggs beaten to a froth, sweetened with 4 tablespoons sugar and flavored with a few drops of vanilla, rose or almond. Set in the oven a moment to harden. Eat cold.

Greens on Toast.—Boil spinach, lamb's quarters or young beet tops in salted water until done. Drain well, reheat, adding a little pepper and butter, and serve on hot buttered toast. You may put a poached egg on top of each if you like.

Souffle of Greens.—To every cupful of left-over cooked greens add one beaten egg. Stir well, pour into a well-buttered baking-dish, and cook in a hot oven for 15 minutes.

Honeycomb Eggs.—Put a tablespoonful of butter in a granite pudding-pan and set in the oven to heat. Break 5 eggs into a dish containing one-third cup milk,  $\frac{1}{2}$  teaspoon salt and a dash of pepper. Beat one minute, pour into hot pan, bake in quick oven 10 minutes or until the eggs have risen to the top. Serve very hot.

Swiss Eggs.—Line a pie-plate with thin slices of cheese. In one cup of milk mix 1 teaspoon mustard, dash of red pepper,  $\frac{1}{2}$  teaspoon salt. Pour half of this mixture over the cheese, then carefully break the yolks, then pour the rest of the milk over them. Bake 10 minutes, or until the eggs are set.

Peach Foam.—Chop a can of peaches, heat, and thicken with 3 tablespoons of cornstarch blended in a little water. Add the juice of half a large lemon. Remove from the fire, and when nearly cold whip in the beaten whites of 3 eggs. Serve cold.

Rhubarb Jelly.—Use red-colored stalks and do not peel. Cut into inch pieces, wash and put at once into a clean jelly bag. Put the bag in a kettle holding a pint of water to each quart of fruit. Cook until tender, then set the bag into a granite colander on top of the kettle till the rest of the juice strains through. Let boil down about one-third, then add as much granulated sugar (warmed) as you have juice. Boil gently for 15 minutes, then test in a saucer, and if stiff enough pour into glasses and seal when cold.

Rhubarb Pickles.—1 quart rhubarb, 1 quart vinegar, 1 quart chopped onions, 1 $\frac{1}{2}$  lbs. brown sugar, 1 tablespoon salt, 1 teaspoon each allspice, cinnamon, cloves and ginger, and  $\frac{1}{2}$  teaspoon red pepper. Stew all for 3 hours.

**The Scrap Bag.**

**BEATING WHITES OF EGGS.**

Sometimes in summer it is difficult to get the whites of eggs to froth. To remedy this for every egg, white add 2 drops pure glycerine. The glycerine is perfectly harmless.

**LOTION FOR TAN AND FRECKLES.**

Mix 1 tablespoon horseradish in 1 cup sour milk. Let stand for 6 hours and apply three or four times a day.

**POWDER FOR PERSPIRING FEET.**

Burnt alum, 5 grams; salicylic acid, 2 1/2 grams; starch, 15 grams; talcum powder 50 grams. Dust the feet with this before putting on stockings.

**STARCHING DARK CLOTHES.**

The water in which potatoes have been boiled, when carefully strained, is a good starch for dark fabrics.

**ROSE BUSHES.**

If bugs appear on your rose bushes spray them once or twice a week with tobacco water.

**SETTING COLOR IN WASH GOODS.**

Spirits of turpentine, properly used will set the color perfectly in nearly all wash materials. Put into a clean wash-bowl 1/2 gallon of cold water and 1 teaspoon spirits of turpentine. Wet the goods in this very thoroughly, wring them dry and hang up in the shade. When perfectly dry launder them as usual.

**FLY POISON.**

A fly poison that is quite safe to have about where there are children who will persist in climbing, is made by boiling quassia chips to a strong decoction. Sweeten with brown sugar or molasses.

**TO REMOVE PERSPIRATION STAINS.**

To remove perspiration stains from white silk apply peroxide of hydrogen; for colored silks apply a mixture of alcohol and chloroform, half and half.

**BLEACHING FADED MUSLINS.**

Muslins that are too much faded to be wearable may be bleached white by soaking them in a solution of chloride of lime and water, 1 tablespoonful to the quart, well strained. Wash very thoroughly afterwards and rinse well.

**News of the Week**

By a proclamation issued on May 29th the Ontario Legislature was dissolved. A new election will be held on June 29th.

It has been finally decided that Great Britain will not participate in the Panama Exhibition, to be held in San Francisco next year.

The Home Rule Bill passed the House of Commons on May 25th, and was passed on to the house of Lords.

Thirteen new Cardinals were created at the Vatican by Pope Pius on May 25th. One of the members is a Canadian. Monseignor Begin, Archbishop of Quebec.

When probate was granted last week it was found that the estate of the late Lord High Commissioner for Canada amounted to \$23,257,010.

Jacob A Riis, the noted social worker and author of "The Battle With the Slums," "The Children of the Poor," and other books, died at Barre, Mass., on May 26th.

By the sinking of the Empress of Ireland in the St. Lawrence River on May 28th, the greatest disaster in the history of Canadian navigation, nearly 1,000 lives were lost, over 400 being saved by two government steamers that arrived within a few moments after picking up the wireless call. The steamer was insured for \$2,000,000, and her cargo for a quarter of a million.

**The Windrow.**

It is now possible to implant hair in the scalp of the bald, says Literary Digest. Only about 50,000 separate operations are required in the case of one who has no hair at all, but a skilled operator can perform about 500 in an hour, so that in ten days of ten working hours each the completely bald man may have a head of hair of his own.

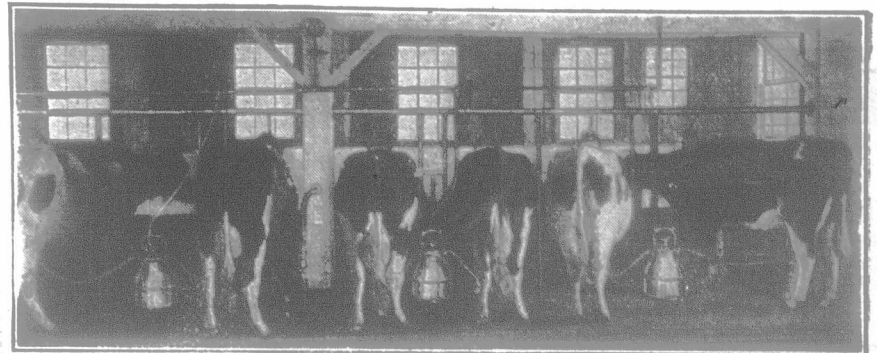
The real name of the late Lillian Nordica, says Evening Post, was Lillian Norton, which was changed, not to make it look Italian, but because Puritan relatives objected to her disgracing the family name by appearing on the operatic stage. She was an American, and received her first training in music in Boston and New York. Later she studied in Italy, and subsequently sang in most of the cities of Europe taking especially well the parts of "Isolde" in "Tristan and Isolde"; "Leonora" in "Il Trovatore"; "Marguerite" in "Faust"; "Kundry" in "Parsifal", and other notable roles. She died in Batavia, Java, on May 10th, of pneumonia, induced by a nervous breakdown due to an accident to the steamship Tasman on which she was a passenger.

A unique device for testing whether bank-notes are true or counterfeit, has been invented by Mr. E. E. Bawtrie, an English electrochemical engineer. The device serrates the edges of bank-notes in such a way that they will act as phonographic records when used with an appropriate reproductive device. The real ten-dollar bill will then speak its own name, whereas the counterfeit bill, although exactly similar in appearance, will either remain dumb or emit only unintelligible sounds.

The Independent tells of a number of wonderful flowers brought to America by a quiet American plant-hunter, Mr. E. H. Wilson, who returned not long ago from a trip of 2,000 miles into the Mongolian hinterland, accompanied only by a band of coolies. Mr. Wilson is described as "the most audacious, the most persistent and the most successful plant-hunter the world has ever known." He has discovered and brought back no fewer than 2,000 new plants, many through experiences of great danger. To one of these, the "Incandescent Lily", was awarded a gold medal at the recent International Flower Show, in New York, as the finest new plant in cultivation. The flowers are white suffused with pink, shading to canary yellow at the centre, and have a jasmine-like perfume, sweet and delicate. Mr. Wilson's familiarity with plants is marvellous. It is estimated that he can name from thirty to forty thousand.

Though two prophets could be hardly more unlike than were Goldwin Smith and Carlyle, their point of resemblance was that both talked exactly like their books. Carlyle was, to be sure, far more picturesque and vivid, but Goldwin Smith's discourse was more perfect in form. Every sentence might have been printed just as it fell from his lips without needing any correction, yet there was no sense of effort, no straining after effect. He had indeed a genius for expression, and a power over language even more remarkable than his power of thought. Nor was this confined to English. His Latin style was unexceptionally classical—i.e., whatever a Roman might have thought of it, no one at Oxford or Cambridge could detect any error. Yet it was not, like the Latin compositions of nearly all modern scholars, imitated from Cicero or Livy or Tacitus. It was his own style, just as the Latin of Erasmus and Francis Bacon is their own. He handled the language with the same ease and felicity as he did his mother-tongue.

He was one of four men who may be deemed to have been in his time the chief masters of English prose. Two of them everybody will place in the front rank. I mean J. H. Newman and John Ruskin. A third is less known, because



**Read What A Satisfied User of a B-L-K Has To Say:--**

Messrs. D. Derbyshire & Co., Brockville, Ont. Ottawa, Ont., Nov. 4, 1913.  
Gentleman: Re your favor of recent date asking for a report of results on my "B-L-K" Milker, would say: I am still perfectly satisfied with same. I have been using the machine for about eight months, and have not lost a single milking, and would not think of going back to the old method of hand milking. I may add that previous to making my decision in choice of machines I had another make in on trial for thirty days, but had no hesitation in making a decision in favor of the B-L-K as it suited me best in every way. I remain, Yours truly, E. A. PARSON.

P.S.—If you know of any person in my district who would like to see the machine working I should be pleased to take him out to my farm and show him all.—E. A. Parson.  
The object of a milking machine is not simply to draw some of the milk. Almost any kind of a sucking or squeezing device will do that. A successful milker must continue to get all the milk and do it in such a way that the milk giving ability of the cow will be developed and the maximum yearly yield of milk be obtained. A good milker must be simple, easy to keep in order and to operate, and so constructed that the milk is kept free from dirt.

**Every one of these requirements is fully met in the present Burwell-Lawrence-Kennedy Milker**

To those interested we shall be happy to send circular matter describing our "Simplex" Link-Blade Cream Separators, "Simplex" Regenerative Pasteurizers, "Simplex" Combined Churn and Butter Workers, "Simplex" Cream Ripeners, Facile Babcock Milk Testers, and other apparatus and supplies for Dairies, Creameries and Cheese Factories.

**D. DERBYSHIRE & CO'Y.**  
Head Office and Works - BROCKVILLE, ONT.  
Branches: PETERBOROUGH, Ont. MONTREAL and QUEBEC, P. Q.  
We Want Agents in few Unrepresented Districts.

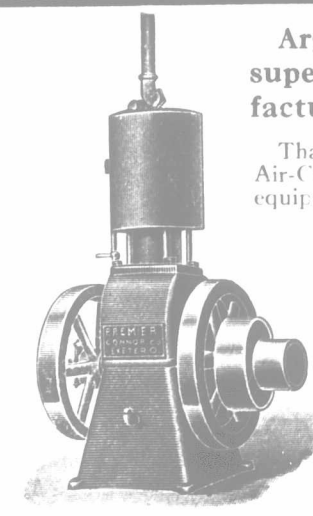
**Poultry Wanted**

WE ARE OPEN TO HANDLE Live Broilers or Live Spring Chickens in large or small shipments. Highest market prices paid according to quality, and prompt weekly returns made. Write us for quotations.  
**Henry Gatehouse**  
348 West Dorchester St., Montreal  
Fish, Poultry, Game, Eggs and Vegetables

**Argument 3.— If Air-Cooling is so superior, why do not other engine manufacturers adopt it ?**

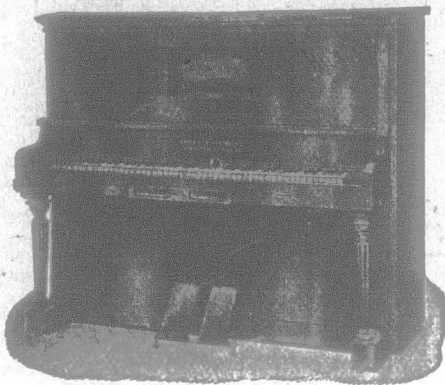
That the PREMIER PATENT covers the only Air-Cooling system is one good reason. A factory equipped to make one class of machine cannot be changed to make another except at a great expense. Most of the gasoline engines are practically the same to-day as they were ten years ago, yet no one will claim that nothing new or useful has been discovered about gas engines in that time.

**Connor Machine Co., Limited**  
EXETER, ONTARIO  
Air-Cooled Engines, 2 to 10 h.-p.  
8- and 12-in. Grain Grinders.



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That statement sounds a little exaggerated, doesn't it? But nevertheless, it is perfectly true. "Every member of your family can be a master musician."



Player-Piano—Style 120.

### Sherlock - Manning 20th Century Player - Piano "Canada's Biggest Piano Value"

in your home. It will be a delight for the whole household—for many years to come. The Sherlock-Manning Player-Piano has the Otto Higel Mechanism—the newest and best player mechanism produced, and is controlled so easily that the tiniest child can render correctly any musical composition. Two notable features of the Sherlock-Manning Player-Piano are the Solodant (which subdues the accompaniment to the melody—brings out the theme—correctly accents the melody), and the Tempo-Aid, which translates into the music each touch of emotion on the part of the performer). We can save you \$100 on the purchase of a player-piano. You owe it to yourself and family to investigate this superb instrument before purchasing elsewhere. Write Dept. 4 for particulars and handsome art catalogue L.

**THE SHERLOCK-MANNING PIANO CO.**  
London (No Street Address Necessary) Canada 61



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LITTLE flanges of steel—quick-cooling steel—to tear the heat from the coal and fling it freely to all corners of the house. Do you understand why a cool fire-pot gives you the most heat? It's explained in "Comfort and Health" and because that's the secret of fuel economy, we have been asked for thousands of these little books. One is here for you—ask for it. Send in the coupon. When you want to go into the heating question seriously—not necessarily to buy—but to get at facts and figures, our heating engineers are ready to help you. Their advice costs you nothing—and it is so good that we will be responsible for any heating job installed according to their plans. Write today for information.

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NO OBJECTIONABLE FEATURES—  
Does Not Blister—Will Not Discolor—Is Not Gummy—Has Agreeable Odor.

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he wrote on subjects that do not attract the general public, but those who have studied the collected essays of F. W. H. Myers, a poet who wrote so little that he is almost forgotten, except by those who read him when he and they were under thirty, will probably agree with the view that no richer and more melodious prose has been produced in our time. The supreme merit of Goldwin Smith's writing is the union of clearness, strength and brevity. Its weakness lies not in the diction, for that is hardly to be surpassed, but in the fact that in his articles or books the argument does not march. Surely no one in our time has possessed an equal gift for terseness.—Lord Bryce, in the April number of The North American Review.

## The Ivory Snuff Box.

By Arnold Fredericks.

(Copyrighted.)

Chapter XIX.

### GRACE'S IDENTITY BECOMES KNOWN.

It was not until early in the afternoon that Grace was able to accomplish anything toward carrying out the instructions which young Lablanche had given her with respect to the phonograph. On her return to Dr. Hartmann's from her expedition to Brussels, she went at once to her room and locked the record which Lablanche had given her in her trunk. There was nothing to be done now until after luncheon.

When the meal was over she asked one of the attendants, who seemed to be a sort of housekeeper or head nurse, if there would be any objection to her taking the phonograph, which was a small and rather cheap affair, to her room. She wished to amuse herself, she explained, playing over some of the records.

The woman regarded her curiously for a moment, but as there seemed nothing out of the way in the request, she assented, with the caution, however, that she should not use the instrument except during the day.

"Some of our patients are very nervous," she explained. "It might annoy them if they were sleeping. Of course if there are any complaints you will not continue."

Grace got one of the nurses to carry the instrument to her room, and selected several records from those which she found in a cabinet on which it stood. There were several American records among them. She took all of these and some others selected at random.

She did not play "The Rosary" at once, but made use of one of the other records. The horn of the instrument she directed toward the open window.

When she had finished the first air, and adjusted her own record upon the plate of the machine, she felt afraid that it might at once be recognized as strange and new, but apparently no one paid any attention to it.

She continued her playing as long as she dared without running the risk of attracting undue attention. When at last she stopped she felt as though she never wanted to hear the strains of "The Rosary" again.

After dinner she determined to disregard the suggestion of the housekeeper to confine her playing to the daytime, and moving the machine somewhat nearer the window, played the song over three times in rapid succession.

She had just begun to rewind the clockwork for a fourth time when there was a loud knocking at the door, and Dr. Hartmann entered hastily in response to her rather frightened "come in."

He was scowling fiercely, and took no pains to conceal the fact that he was angry.

"Miss Elliott," he growled, "We cannot possibly allow you to play this instrument any longer. It annoys the other patients. I am surprised that your housekeeper did not inform you so at once. Several have already complained. I shall have to take it back to the library."

She gathered up the instrument and stepped toward the door, then seemed for a moment to regret his brusqueness. "You will pardon me, I know, but it

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Longfellow	1.85	1.75
North Dakota	2.00	1.90
Smut No-e	1.85	1.75

Millets	Per bus. Bags free
Hungarian	\$1.60
Common	1.60
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Buckwheat	Per bus. Bags free
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Golden Vine	\$1.35
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### MAIL CONTRACT.

SEALED TENDERS, addressed to the Postmaster General, will be received at Ottawa until noon, on Friday, the 3rd day of July, 1914, for the conveyance of His Majesty's Mails, on a proposed contract for four years, 120 single trips per week between Woodstock Post Office and Grand Trunk Railway Station from the Postmaster General's pleasure next.

Printed notices containing further information as to conditions of proposed contract may be seen and blank forms of tender may be obtained at the Post Office of Woodstock, and at the office of the Post Office Inspector at London.

G. C. ANDERSON, Superintendent.

Post Office Department, Ottawa.

22nd May, 1914.



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28-inch and 32-inch diameter, 4-inch by 3/4 tire. Built to fit any axle.

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**GOCHRANE'S WAREHOUSE**  
Victoria Bridge Manchester, England

**WANT AND FOR SALE**  
COLLIE Pups (pure-bred) for sale. Harry Rose, Glanworth, Ont.

is quite out of the question. Good evening." In a moment he had gone.

Grace sat down and burst into tears. It was not the taking away of the phonograph which distressed her—she felt that if anything could be accomplished by its use it had already been done—but the hopelessness of the whole situation.

Nearly eighteen hours had elapsed since she had stolen, half fainting, from the sight of Richard's white and agonized face. Even Lablanche's assurances that Hartmann would do her husband no serious injury failed to comfort her. The whole affair of the phonograph seemed trivial and useless. What message could the words of this song give him—what, in fact, could they mean to any one, except a message of hopeless love?

When the hour for going to bed had come she threw herself without undressing on the bed and lay sleepless in the darkened room. The vision of Richard as she had seen him the night before, his face within the circle of light, tortured her incessantly.

It seemed somehow so wrong, so cowardly of her, to lie here in comfort doing nothing to aid him who, in name at least, was related to her forever, and in love was more dear to her than her own soul. She could not sleep, and presently rose and sat at the window, her elbows resting upon the sill, gazing hungrily out at the little square brick building where she knew Richard lay confined.

The hours of the night dragged along on laden feet. Once she heard the closing of a door, and the sound of footsteps echoing faintly upon the cement floor of the lower corridor. Within the laboratory all seemed dark. Evidently the doctor was not there. Then she heard, through her half-opened door, noises of persons walking in the lower hallway of the main building, and after that the sharp closing of a door. She concluded that Hartmann had gone into his office.

The woman on duty in the hall sat in her chair reading and yawning. After a time Grace heard the faint ringing of her bell, and the woman, after consulting the indicator, began to descend the stairs with a surprised look upon her face. It seemed like a providential opportunity. She slipped quietly through the doorway and sped as swiftly as she could down the hall.

She reached the door opening into the corridor without hearing or seeing anything to cause her alarm, and passed through it unseen. As she closed it behind her she fancied she heard some one walking quickly along the corridor beneath.

The passageway in which she stood was in reality nothing but a covered bridge, a few feet wide, built for the sole purpose of providing a means of passing to the laboratory from the second floor of the main building. Beneath it, a similar passageway connected the ground floors of the two buildings.

She realized that any one in the corridor beneath her could readily hear her footsteps on the wooden floor above. She stood hesitating just inside the door, waiting until they should have passed. In a few moments the sounds below ceased and silence again reigned.

With great timidity and caution she began to walk toward the laboratory door. In the center of the corridor, and half-way down its length, a single electric lamp shed a dim light on her path. She realized that if, by chance, any one should be within the darkened laboratory they could readily see her approaching, and therefore assumed once more the manner and bearing of a person walking in her sleep.

She had passed the light in the middle of the corridor and was nearing the darkened laboratory door, when suddenly she heard a faint click, and almost at once the laboratory was brilliantly illuminated.

By the light which suddenly flashed upon her she saw two figures standing in the open door of the laboratory watching her intently. One of these figures was Dr. Hartmann, the other the tall blond man she had seen with him in the laboratory several nights before.

But it was not the sudden appearance of the two watching figures which caused her heart to sink and a cold

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Whither Thou Goest

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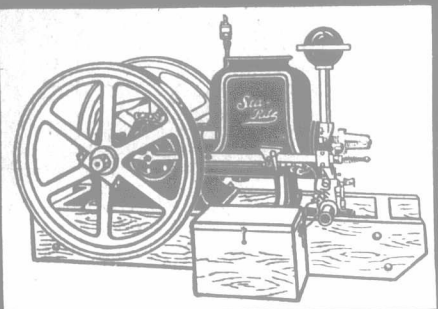
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perspiration to break out upon her forehead. The sudden rush of light upon the floor of the passageway had shown her something else—something far more strange and terrifying.

As her gaze swept ahead she saw that, for a space of some four or five feet in front of the laboratory door, the wooden planking which constituted the floor of the passageway had been removed, and instead of the solid footway there yawned blackly an impassable opening, through which, in another moment, she would plunge headlong to the concrete floor of the corridor beneath.

The sight filled her with dismay. She realized at once why Hartmann and his companion stood there watching her—why the section of flooring had been removed. He had evidently become suspicious of her movements the night before, and had laid this trap to test her.

If she was in truth walking in her sleep she would, she supposed, walk fearlessly into the yawning gap before her. If her somnambulism was a sham, a trick, she would hesitate, and her fraud be discovered.

She did not know what to do, as step by step she approached that black and gaping hole. If she kept up her pretense, if she had sufficient courage to go ahead, what would it avail Richard, or M. Lefevre, should she maintain her assumed character at the expense of a broken leg, or neck?

On the other hand, to halt, to hold back, would be to destroy at once all chance of her being of any further service to her husband, and that, too at a time when he most sorely needed her.

These considerations flashed through her brain with the speed of light itself. She had scarcely taken half a dozen steps before she found herself upon the brink of the opening, and realized that the next step, if she took it, might be her last.

Then she suddenly collapsed. The effort was too great—she sank helplessly upon the floor, her face buried in her arms, her whole body shaking with the force of her sobbing.

In an instant Hartmann had sprung across the opening and grasped her by the wrist, while his companion was engaged in rapidly replacing over the gap the section of flooring which had been removed. Within a few moments the passageway was as it had been before, and the doctor was dragging her roughly into the laboratory.

She did not cry out—there was no one from whom she could expect aid. She drew herself up and faced her captor with dry eyes and a face calm, though pale.

"What do you mean, Dr. Hartmann," she demanded steadily, "by treating me in this way?"

He forced her into a chair.

"Sit down, young woman," he said gruffly. "I have a few questions to ask you."

She did so without protest, summoning to her aid all her powers of resistance and will. He should get nothing from her, she determined.

"Why have you come into my house," he presently asked, glaring at her in anger, "under pretense of desiring medical treatment? What is it you want here?"

She made no reply, gazing at him steadily, fearlessly.

"What is this man Duvall to you?" he shouted. "Tell me, or it will be the worse for you both."

Again she faced him, refusing to answer. Her resistance made him furious.

"Your silence will profit you nothing," he went on. "You can do no further harm here, for I know your purpose. You are working with him; you are a detective, a spy, as he is. You pretend to be a somnambulist in order to carry out your ends. I suspected you long ago. Now I know. This man has robbed me of something that I am determined to have. What he has done with it, where it is concealed, I do not know, but I mean to have it, be sure of that. If you know you had better confess, if you have any regard for his welfare."

His words, his brutal manner, brought the tears to her eyes. She realized that she had but to say a few words to save Richard from she knew not what fate, yet equally she knew that she could not say them, that he would not want her to say them.

In her agitation she took a handker-

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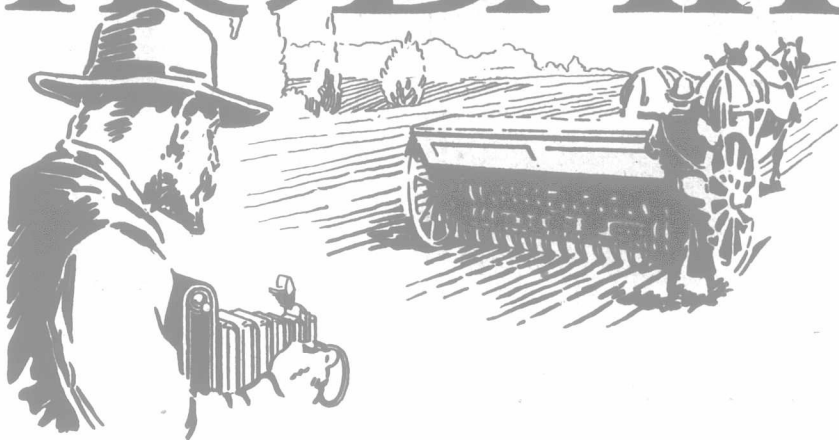
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chief from her dress and pressed it to her eyes.

The man Mayer had been regarding her in silence throughout the whole scene. Suddenly he stepped forward and snatched the handkerchief from her hand. His quick eyes had detected a monogram in one corner of the bit of cambric, and with an air of triumph he held it beneath the light, examining it closely.

Hartmann came to him.

"What is it, Mayer?" he asked eagerly.

His assistant extended the handkerchief to him. Grace realized with a sinking heart that it was one of the several she had herself embroidered during the weeks preceding her marriage. With what pride, she reflected, she had worked over the G and D, lovingly intertwined in one corner.

"His wife!" she heard Hartmann cry with a harsh laugh. "That explains everything. That was why he did not leave Brussels at once; he was waiting for her—he would not go without her."

He turned to Grace with a new expression on his face.

"So you are his wife, eh? Very well. Now we shall see whether or not you will tell me what I want to know. Your husband is confined in the room below us. This—" he indicated the small black box with wires attached—"is a device which I have constructed for producing certain light rays—light rays which have a marvelous power, both for curing and producing disease. Look—he held his powerful hand before her eyes; "this is what they did to me before I discovered how to control them."

She saw, stretching across the back of his hand and wrist a broad red patch, like the scar remaining after a burn.

"Now come here."

He seized her by the wrist and dragged her toward the apparatus at the center of the room.

"Look—in there."

He indicated a short brass tube resembling the eyepiece of a microscope, which rose from the center of the box.

"Look."

Grace bent over and applied her eye to the brass tube, then shrank back with an exclamation of horror.

"Richard!" she screamed, then turned on Hartmann with the fury of a tigress. "Let him go—let him go—I say, or I will—" She realized her helplessness, the futility of her threats, and fell into the chair in a paroxysm of sobbing.

Through the brass tube, and the powerful lens which focused the light rays upon the space below, she had seen Richard's face, white and dawn, within a disk of blinding light, and apparently so near to her that she could have reached out and touched it. In her momentary glance she noted his reddened eyes, the tears which coursed from beneath their lids, the agony which distorted his countenance.

"Now will you tell me what I ask?" cried Hartmann triumphantly.

Still she made no reply. Her heart was breaking, her suffering at the knowledge of his suffering made her faint and weak, but even now she could not bring herself to break the trust which M. Lefevre had placed in her. She sat huddled up in the chair, shaking from head to foot with sobs.

Hartmann saw that her resistance was as yet unbroken.

"Take her arm, Mayer," he called out, as he seized her by one wrist. "Come along now. We'll see if a closer view will have any effect."

He snatched up a broad leather strap from a shelf along the wall, then, with Mayer's assistance, half led, half dragged her to the front stairway in the corner. In a few moments they had paused before the door of the room where the detective lay confined. Hartmann threw it open and pushed Grace inside, while he and Mayer followed, closing the door behind them.

For a moment Grace was dazzled by the brightness of the light cone, and the darkness of the remainder of the room.

Then seeing Richard lying helpless on the floor before her, she threw herself to her knees, put her arms about his neck, and covered his face with kisses.

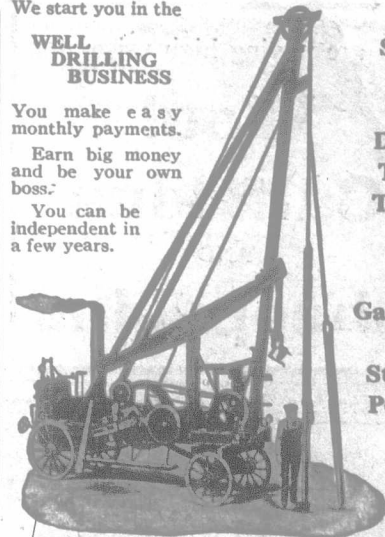
"My darling, my poor boy," she cried as she bent over him, her shoulders shutting off from his face the blinding rays of the light. "What have they done to you?"

(To be continued.)

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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 pay me first, and I'll give you back your money if the horse isn't alright."

Well, I didn't like that. I was afraid the horse wasn't "alright" and that I might have to whistle for my money if I once parted with it. So I didn't buy the horse, although I wanted it badly. Now this set me thinking.

You see I make Washing Machines—the "1900 Gravity" Washer.

And I said to myself, lots of people may think about my Washing Machine as I thought about the horse, and about the man who owned it.

But I'd never know, because they wouldn'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 only fair enough to let people try my Washing Machines for a month, before they pay for them, just as I wanted to try the horse.

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So, said I to myself, I will do with my "1900 Gravity" Washer what I wanted the man to do with the horse. Only I won't wait for people to ask me. I'll offer first, and I'll make good the offer every time.

Let me send you a "1900 Gravity" Washer on a month's 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 take it back and pay the freight, too. Surely that is fair enough, isn't it?

Doesn't it prove that the "1900 Gravity" Washer must be all that I say it is?

And you can pay me out of what it saves for you. It will save its whole cost in a few months in wear and tear on the clothes alone. And then it will save 50 to 75 cents a week over that on washwoman's wages. If you keep the machine after the month's trial, I'll let you pay for it out of what it saves you. If it saves you 60 cents a week, send me 50c a week till paid for. I'll take that cheerfully, and I'll wait for my money until the machine itself earns the balance.

Drop me a line to-day, and let me send you a book about the "1900 Gravity" Washer that washes clothes in six minutes.

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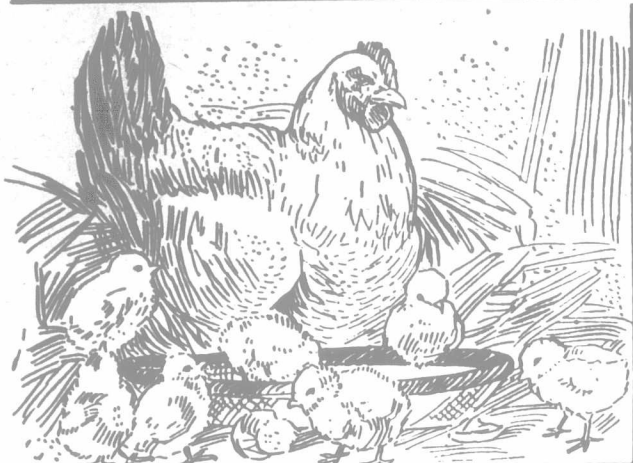
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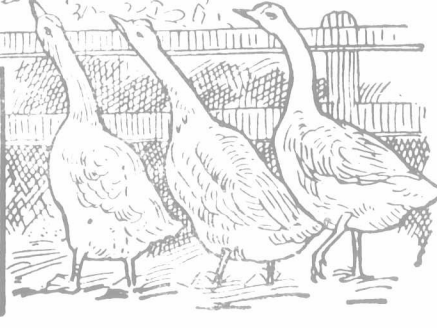
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P-9



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2nd—Questions should be clearly stated and plainly written, on one side of the paper only, and must be accompanied by the full name and address of the writer.

3rd—In veterinary questions, the symptoms especially must be fully and clearly stated, otherwise satisfactory replies cannot be given.

4th—When a reply by mail is required to urgent veterinary or legal enquiries, \$1.00 must be enclosed.

**Miscellaneous.**

**Cut Worms.**

Can you give a remedy for destroying cut worms that eat off cabbage plants.

J. Z.

Ans.—When cut worms are in the soil there is only one thing to do and that is to poison them. When young plants are set out it is wise to put a little poisoned bran around them. The worms are attracted to this, especially if it is sweetened with a little molasses or sugar or even a little salt will entice them to it. One pound of Paris green to one hundred pounds of dampened bran or in smaller proportions one ounce of Paris green to six pounds of bran makes the mixture. Put the bran in a large pan or vessel, dampen slightly with water containing a little sugar or salt, stir and mix thoroughly until the bran seems to be almost dry to the touch then sift over it the requisite amount of Paris green and stir thoroughly. This mixture should be sprinkled around the young plants and the worms will come up during the night and feed upon it much to their own detriment.

**Warts—Silo Queries.**

1. I have a two-year-old colt with warts on its lips and nostrils. Please tell me a cure.

2. Which is the better, a silo 14 ft. by 24 ft., or one 12 ft. by 30 ft.

3. Which is the better way, to have 2 by 6 inch lumber planed and tongued and grooved, or just rough from the sawmill?

4. Will the acid out of the corn rot the grove off the lumber and cause it to decay?

W. L.

Ans.—1. If the warts are suspended by a small string of flesh it would be wise to sever it and touch the sore parts with a feather moistened with butter of antimony. If they are flat and have a broad base, they should be dressed daily with butter of antimony until they disappear. The corroded surface should be picked off occasionally before applying, the fresh dressing. It is claimed by some that the daily application of castor oil will cause them to disappear, but the use of some caustic is a more certain remedy. Another treatment quite easily applied is to procure a silver nitrate pencil from the druggist and touch the warts with it. The pencil must be handled carefully and it would be wise to follow instructions given by the druggist from whom you procure the pencil. Either the latter treatment or that of using the butter of antimony will rid the horse of them in due time.

2. The silo 12 feet by 30 feet is advisable. In this case you will have a much greater weight which insures better silage and for a moderate amount of stock the depth which you lower it every day will insure you fresher material each time.

3. It is better to have the lumber dressed, but it is not absolutely necessary to have it tongued and grooved. If you wish to make the joints more permanent you might bore small holes in the sides of each and insert a small pin about two inches long. This is often done and when the silo is intact it will stand considerable drying out before it will fall. The acid out of the corn is not likely to decay the lumber to any appreciable extent, at first, but you might be able to prolong its life by coating the inside of the silo with crude oil or applications of warm creosote. It is wise not to do this until after the lumber has become quite dry.

Baker—So your uncle has died?  
Butcher—Yes, died yesterday.  
Baker—He was a very eccentric old man, wasn't he? Do you think he was quite right in the head?  
Butcher—Well, I can't just say at present, but I will tell you whether he was or not after the will is read.

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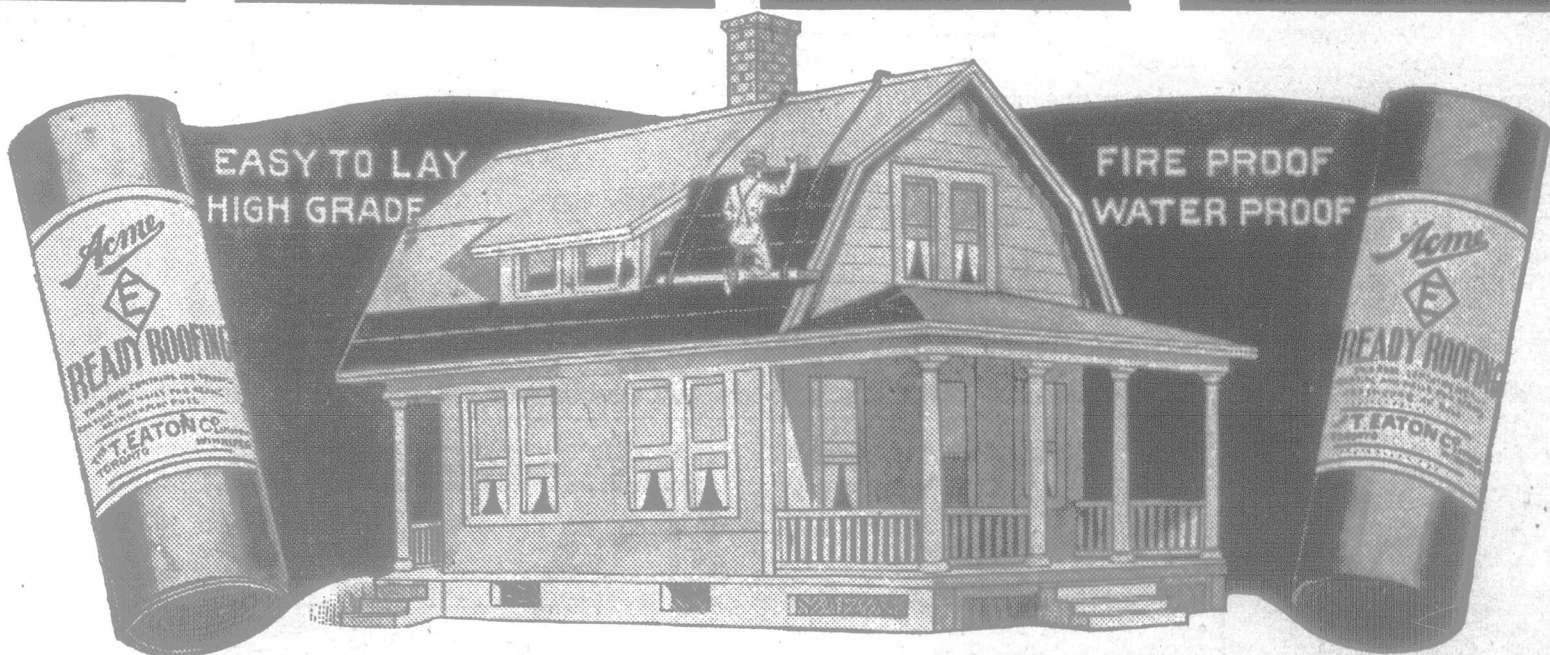


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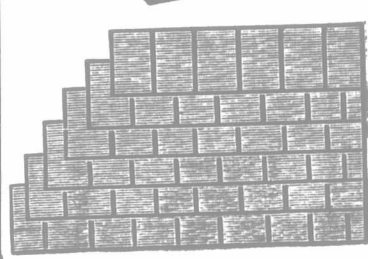
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- 1-ply - - 1.00 per Roll
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#### Questions and Answers. Miscellaneous.

##### Diarrhoea in Pigs.

I weaned pigs at five weeks old. I fed them on fresh milk, and lost a number of them from diarrhoea. Kindly advise what would be proper treatment.

G. L.

Ans.—One correspondent writes that he has one cure-all for diseases in pigs, and that is simply a mixture of new milk and turpentine. This trouble, in your case, is likely due to indigestion, and possibly it could have been pre-

vented by proper feeding of the sow. Had their dam been allowed to run out of doors and have plenty of exercise and access to the ground, they might have been a little stronger constitutionally. However, when these conditions arose it would have been wise to administer about ten to fifteen drops of turpentine daily with some new milk. Another treatment would be to give them a small dose of Epsom salts, say from ½ to one teaspoonful and follow this with one teaspoonful of tincture of gentian and ginger combined three times a day. A good grade of middlings and milk with the administration of these drugs would probably have restored them to health.

##### Worm Seed Mustard.

Would you kindly tell through your valuable paper the name of the enclosed plant and if it is a very bad weed.

C. C.

Ans.—This plant very much resembles wormseed mustard. It is rather persistent when it once gets established in the field, but it is in no wise as formidable as the common mustard. A rotation of crops including a hoed crop will eradicate this weed thoroughly. It is quite common in the fields and is never looked upon as being one of the so-called bad

weeds. Nevertheless, a large quantity of its seed mixed with grain makes it objectionable as feed for some kinds of live stock and although it is not one of the worst it should be kept down.

##### Sore Teats.

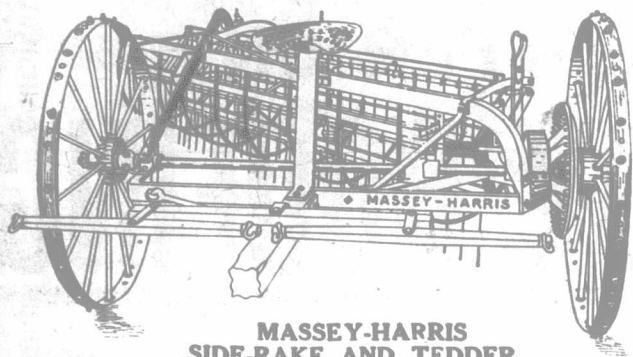
Outside of cow's front teats is red, as if sun-burnt, and so sore I can hardly milk her. She has been this way for a week. Can anything be done to relieve the soreness, and what would cause this?

MAC.

Ans.—Dress three times daily with an ointment made of 4 drams boracic acid, 20 drops carbolic acid and 2 ounces vaseline.

# Make Hay While the Sun Shines

If you can, but if the shines are few and far between, you will have need of the most improved Hay-Making Implements, and here they are.



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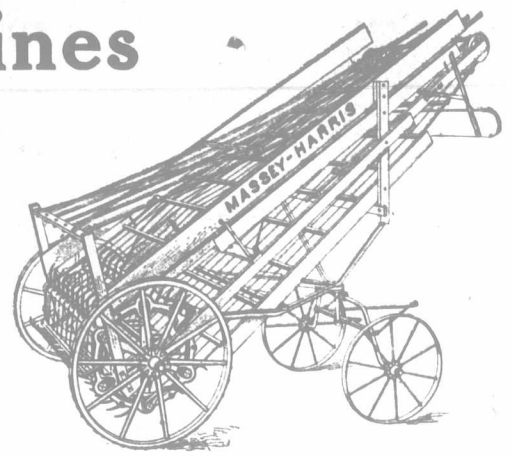
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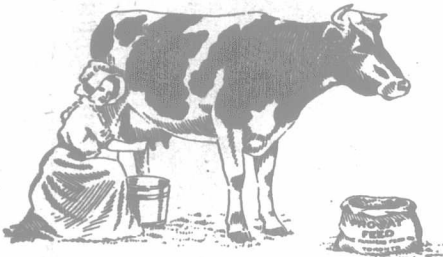
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## Questions and Answers. Veterinary.

### Cow with Cough.

Cow began to cough in the early winter. I had my veterinarian test her with tuberculin, and she did not react. He said the cough would probably disappear when she got on grass, but she still coughs. She is a good feeder, and in fine condition. W. B.

Ans.—The fact that the cow is feeding and looking well is proof that the cough is not interfering with her constitutionally. It is possible she has chronic bronchitis, or there may be a polypus in the nasal chambers that cannot be definitely located. Again, she cannot have been long on grass, hence nature, in this respect, has not had a fair opportunity to effect a cure. While the tuberculin test is definite in a large percentage of cases it is not infallible. Although she failed to react she still may be tubercular. From some unrecognizable reason the tuberculin may not have been potent, or being potent failed to cause a reaction. I would advise testing her again in not less than four months after the first test, and if she again fails to react I would not worry about the cough even though it should continue. We do not think that the administration of drugs does any good in a case of cough without constitutional disturbance. V.

### Sprain During Parturition.

Strong, healthy Clydesdale mare produced a strong foal and immediately afterwards partially lost power and control of her hind legs. I had to assist her to rise, after which she wobbled, and I had to steady her for a time to keep her from falling. My veterinarian could not locate the trouble, and advised me to leave her out on grass, which I have done. She is gradually improving; she can rise without much trouble, but sometimes when walking she places one hind foot in front of the other and then goes all right for a while, then makes a misstep with the other foot. She can back up and turn around all right. W. G. S. F.

Ans.—She sprained some of the muscles of the pelvis during parturition. It is often impossible to locate the trouble in these cases, and even if this could be done external applications would be useless as the injured tissues are so deep seated. Spontaneous recovery usually takes place, but this is slow. Keep the mare and foal in a field by themselves, and if possible avoid anything that will excite her or cause her to run. If any complications arise send for your veterinarian. V.

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Secure good help and make 12 months engagement to prevent disappointment next spring. Farm help supplied from the Old Country. Utmost care given in selecting the right class of help to fill each individual requirement. Write stating particulars.

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GOOD IS GOLD

Questions and Answers. Miscellaneous.

Taxation.

1. Is it legal for a Township, which has done away with Statute Labor, to charge taxes for road improvement, when there is not a road anywhere near the property?

2. Can a Township legally add 10 per cent. to arrears of taxes? If not what is the extreme limit?

ONTARIO. SUBSCRIBER.

Ans.—1. Yes. 2. No; the limit is 5 per cent.

Troublesome Pets.

Can I kill tame pets, or birds, such as pigeons or doves, if they are on my land, destroying my grain, or threatening such, after notifying by registered mail to take care of same, also other fowls? What can a man do to me for killing these birds any way here in the Province of Quebec?

QUEBEC. C. R. B.

Ans.—This is a matter that depends very largely upon local and municipal laws and regulations, and we must, accordingly, recommend you to consult a local lawyer personally.

Silo Queries.

A few things more I would like to know about the Simcoe Co. Silos if Mr. Galbraith will answer through the Advocate.

1. Will the lumber do cut all widths—I mean different widths in same silo—from 6 inches up to 15 inches?

2. How is scaffolding done? 3. How high is first one?

4. Is first one left until all is done, that is for the support of the next one and so on to the top?

5. What material is used for roof and what shape is it put on?

6. What size of door is left and how is it put in?

7. Do you have to scaffold for roof?

8. How many hinges on each door?

9. Does foundation need reinforcing, and how?

10. When a set of hoops are raised how are they kept perpendicular?

11. Would it be strong enough to start sheeting with hoops tacked to four pieces?

12. Do you use the same length of nails for inner sheeting as for outer?

13. My hoops will be fresh made out of green stuff, is that all right?

14. How many nails would you drive on each board, say a foot wide, into the hoop, and what length?

We have no silos in this part and so don't know much about them, and any information is welcome. R. J. M.

Ans.—1. Lumber may be used all widths so long as joints are broken carefully. The width usable will depend somewhat on the diameter of the silo—for instance while fifteen-inch stuff might be safely used on a fifteen foot silo, lumber over half that width would probably split considerably in applying it to one of eight or nine feet.

2, 3 and 4. Four good-sized poles are erected in the form of a square, on the foundation inside of the line where silo will stand. These poles are held together by braces and cross-pieces, usually of inch lumber placed at convenient intervals on which boards are placed to stand on while working. Poles are pulled over the top of silo when finished.

5. Usually octagonal, wooden frame, and sheathing covered with metal shingles. Gothic being constructed for pipe.

6. Eighteen inches is a good width. Doors are made of double-inch nailed to battens. Battens of course to be on the outside.

7. An outside scaffold is better for roof building.

8. No hinges are used, doors being put in as the silo fills. The pressure of the corn holds them.

9. No reinforcing should be required in underground stone or cement work.

10 and 11. Hoops are tacked to four pieces which are plumbed and stayed rigidly to the scaffold.

12. Three-inch for both courses.

13. The greener the better, and 2 inch is thick enough if silo is ten feet or wider.

14. Three or four, as may seem necessary to make it tight. W. J. G.

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Advertisement for Freeman's Bone Meal fertilizer, featuring a woman holding a globe and text: 'FREEMAN'S BONE MEAL', 'BEST ON EARTH', 'MORE PHOSPHORIC ACID TO THE DOLLAR'S WORTH THAN IN ANY OTHER FERTILIZER', 'Send for Booklet on Fertilizers and Fertilizing with Guaranteed Analysis', 'The W. A. FREEMAN CO., Ltd', '222 HUNTER ST. E., HAMILTON.'

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"One of my horses had thrush so bad that his feet became offensive, and the neighbors advised me to shoot him. Before doing so, I decided to try Egyptian Liniment, and in a short time my horse's feet were as sound as ever."

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**Questions and Answers.**  
 Miscellaneous.

**Paints—Rancid Butter.**

1. I have a house which was built six years ago. It is frame, and has never been painted. Is there any satisfactory filler which I can use on it so that it will not take in so much paint, the siding being sap pine?

2. How can rancid butter be made sweet enough for cooking purposes?

3. Our kitchen floor is of hard maple and the paint simply will not stay on it any length of time. Is there any way the paint could be applied so it will stay better, and is there any home mixture which would be likely to stay better than the prepared?

A. J. S.

Ans.—1. The ordinary practice under such conditions is to use a priming coat made of six gallons of raw oil to one-hundred pounds of lead. The second and third coating are usually made with four gallons of oil to one-hundred pounds of lead. When painting porous brick-work a "sizing" made of about one pound of glue to twelve quarts of water is first applied. This prevents the absorption of so much paint.

2. It has been run over and some times mixed with good butter, but this is only spoiling a quantity of good butter to make a larger quantity of a poor grade. For commercial purposes it is prohibited by law.

3. Hardwood floors are usually varnished and stained. The ordinary natural varnish is used. We do not know of any paint that would be applicable to this condition.

**Material for Silo—Lump Jaw.**

1. Will you please tell us through your paper what quantity of gravel and cement will be required for foundation of silo 5ft. high and 12 ft. in diameter.

2. We bought a bull last April 13th, he is registered, and is 18 months old. The owner of this bull had him entered at a pure-bred sale, March 4th, but did not send him, as he told us he was too thin. Since we have bought him we have found out the reason why he wasn't at the sale, because he had lump jaw. Should he have sold him to us, knowing we did not know much about bulls? He gave his only reason as being too thin at time of sale, but when we got him he was in nice order. The lump is not noticeable, but we can feel it with the hand.

3. Can we come on him for rebate, as he sold the bull under false pretences.

4. Will the lump get bigger, if so, what had we better do? Is there any way of preventing it.

5. Will his stock inherit same complaint.

NEW SUBSCRIBER.

Ans.—1. The dimensions upon which we have based our calculations are for a footing or foundation in the earth 2 1/2 feet deep and 15 inches wide. The base of the silo is built upon this 5 feet high and 8 inches thick. The floor of the silo is 2 inches thick. The proportions for the foundation are 1 bag of cement to 10 cubic feet of clean, sharp gravel. The base is 1 to 7 and the floor 1 to 8. These dimensions and proportions will require 33 bags of cement and 10 cubic yards of gravel.

2. That is a matter for individual opinion.

3. It might trouble you to establish proof that he knew the lump was there; otherwise you could not prove a sale under false pretences. If he is a prominent breeder he will make it right and we would advise you to negotiate with him.

4. If it is lump jaw, it is quite likely to get larger. Better try the treatment for lump jaw.

5. It consists in giving iodide of potassium three times daily, dissolved in warm water, and given as a drink, or sprinkled on food. Commence with 1/2 drams doses, and increase the dose to 1 dram daily until he refuses food and water, then ease back to 1/2 dram, and then to 1/4 dram, gradually. When the lump becomes granular, wash it with a solution of iodine, and when it has become granular, wash it with a solution of iodine. The lump will gradually disappear. The danger of this treatment is in two cases: first, if the iodine is given in too large a quantity, it may cause diarrhoea; second, if the iodine is given in too small a quantity, it may cause constipation.

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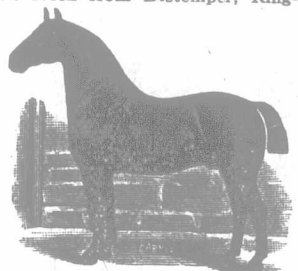
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**Questions and Answers.**  
 Miscellaneous.

**Feeding Chop—Rhubarb.**

1. Would you advise feeding oat chop to milch cows after they are turned out to pasture?  
 2. Would you kindly tell me how to grow rhubarb successfully?

Ans.—1. Under some conditions, yes, in small quantity. Where grass is very abundant and the cow is not being pushed for a record it is not necessary.  
 2. Split up some old roots. Put in about four feet apart each way in rich soil. Manure heavily. A correspondent in a recent issue recommends placing a box around the hills with a glass over the top to force in spring. Dig around the roots each year.

**Cockerel Ailing.**

Year-old cockerel does not seem to see well unless close to the feed. Will occasionally turn his head straight back until the comb almost rests on his back, holding it there for some time, occasionally shaking his head, then walk off again as if well, looks bright and hardy. One cockerel died several weeks ago somewhat similar having his head turned back the last few hours, did not open his crop or gizzard, organs all looked healthy. The cockerels are not akin of the White Wyandotte breed, none of the pullets or year-old hens have shown any such symptoms.

**READER.**

Ans.—We are not prepared to state just what is wrong with the birds. Give them free range and if this second bird should not recover, make a post mortem examination and see if he is not crop-bound or whether there is not some internal disease.

**Disease in Pullets.**

We have lost about 30 pullets since last fall. When first taken sick they have black diarrhoea. They eat pretty well, but becoming worse they do not seem to see the food, and walk about in an aimless way when it is put before them and the droppings change to sulphur color and finally they lose the use of their legs. Some die in a few days; others last as long as a month; others again that seem quite well have white diarrhoea. They are never shut up, but have free range on the farm, feed has been mixed oats, barley and wheat with some corn and sometimes mash with an occasional dose of salts in mash. They have had gravel before them all the time and meat most of the time. They creep away from others to die.

**A. J. C.**

Ans.—It is difficult to diagnose, but we would suggest that you perform a post mortem examination and if you find enlarged, white spots on the liver you may conclude that it is tuberculosis. If you find nothing to indicate the disease, send a specimen to the Bacteriological Department, O.A.C., Guelph, Ontario, for identification of the disease. Isolate diseased birds. Put the healthy birds on new soil and give free range. Symptoms also indicate that the disease might be cholera.

**Gossip.**

At Villa Nova, Pennsylvania, May 14th, 54 head of Guernsey cattle, the property of Frederick Phillips, sold by auction brought liberal prices, the highest being \$1,700, for the three-year-old bull imported Sailor Boy. The four-year-old imported cow Raymond's Daisy of Frie Baton sold for \$1,250, and five other cows at prices ranging from \$500 to \$875 each, and the lowest \$185.

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Please mention "The Farmer's Advocate."

**Questions and Answers.**  
**Miscellaneous.****Sowing Land Plaster.**

Will you tell me through "The Advocate" how late it would be advisable to sow land plaster on meadows, or would it be better sown after hay was off.

F. S. K.

Ans.—We do not advise sowing land plaster as a general thing although it has its greatest value on such crops as clover and roots which require a considerable amount of sulphur. It is getting late now to apply but if it is an old meadow it may not be too late. If the hay is well advanced it might be sown after it is off.

**Miscellaneous.**

1. Mare aborted as the result of an accident. She has a slight attack of "the whites".  
2. She has lammas.  
3. Would it be wise to work her lightly?  
4. Give treatment for scratches.

K. BROS.

1. Flush the womb out every second day with about a gallon of warm water to which has been added 1 ounce creolin and give her 40 drops carbolic acid in a pint of cold water and sprinkled on her food twice daily until the discharge ceases.

2. Scarify the gums with a sharp knife until they bleed rather freely. Do not cut backwards further than the second bar.

3. Yes.

4. Keep heels dry, do not wash. Dress three times daily with a lotion made of acetate of lead and sulphate of zinc mixed with a pint of cold water. Give her a purgative of 8 drams aloes and 2 drams ginger and follow up after purgation ceases, with 1½ ounces Fowler's Solution of arsenic twice daily for a week.

**Tenant Leaving.**

A controversy between landlord and tenant has arisen, and I have suggested that it be submitted with the idea that you would be qualified to speak with some authority as to the usual practice. The tenant took possession of the farm the 1st of March, 1909., with the fall manuring and plowing already done. The lease contains the following clause:

"That the said Lessee will during the said term operate the said lands and premises as a Dairy Farm of the first-class and especially for the production of certified milk and cream, and will cultivate, till, manure and employ such parts of the said premises as are now or shall hereafter be brought under cultivation in a good and proper manner, and in so far as the Lessee shall raise crops on the said lands, it shall crop the same by a regular rotation of crops so as not to impoverish, depreciate or injure the soil, and at the end of the said term will leave the said land in as good condition as at the present time, and will carefully protect and preserve all orchard, fruit, shade and ornamental trees on said premises from waste, injury or destruction and will carefully prune and care for all orchard trees as often as they may require it: (the lessee not however to prune or trim any other trees, the lessor reserving the right to do this as she shall think proper) and will not suffer or permit horses, cattle or sheep to have access to any orchard on said premises."

1. If the tenant leaves the place at the expiration of the lease, Feb. 28th, 1914, without having done the fall plowing, has he fulfilled his obligations as per the above extract in the lease?

2. Is there any precedent or practice that would require the tenant to leave the fields manured, plowed etc., in the same physical condition as they were when the property was entered upon? If you can give me a solution of the matter you will greatly oblige the two parties interested.

TORONTO.

Ans. 1. We think so, as plowing can hardly be expected to affect the matter of "condition" in the above words, in the sense in which it is obviously used in the lease.

2. We do not think that the tenant is under any legal obligation to leave the fields manured or plowed, but that he should do so, if he wishes to leave the fields in as well manured a condition as well manured they were at the beginning of the lease.

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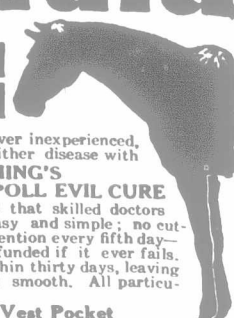
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not all sold. I have 2 roans, 17 and 12 months, respectively; a dark red, 12 months; a white, 11 months; a red roan, 10 months; all straight, smooth, wide, fleshy, strong-boned bulls, showing breed character; some from heavy-milking dams; also five yearling heifers. Priced on easy terms for quick sale.  
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Please mention "The Farmer's Advocate"

### Questions and Answers. Miscellaneous.

#### Hens Lame.

About three weeks ago one of our hens got lame and soon died, now there are two others lame, and as one of our neighbors had a number die last summer with the same symptoms, we think it must be some disease. They just get lame and dumpy for a week or two and then give up. Please tell what the disease is and remedy, if there is any.

**INTERESTED ONE.**  
Ans.—This may be rheumatism or it may be tuberculosis, as the latter disease in fowls is very often accompanied by lameness. Dissect one of the dead birds, and if the liver is spotted and the mesenteries show raised whitish tubercles, you can rest assured that the disease is tuberculosis. In the meantime, isolate affected birds and thoroughly clean up their roosting quarters.

#### Miscellaneous.

1. Colt 10 months old has not done well since recovering from a sickness last fall. It will not eat powders in its food and not eat enough food even without any powders in it.
2. The upper incisors of this colt project beyond those in the lower jaw.
3. Last year our cows were intermittent in the supply of milk, sometimes milking well and probably the next time giving practically nothing as though they had been milked. This continued nearly all season.

**S. S.**  
Ans.—1. Mix equal parts powdered sulphate of iron, gentian, ginger and nuxvomica and give it a heaped teaspoonful in one-half pint of cold water as a drench three times daily. Feed a little at a time and often and as appetite improves, increase the quantity gradually until he requires feeding only three times daily.

2. This is called over-shot or parrot-mouthed and nothing can be done for it. Unless very well marked it will not interfere with thriftiness. In some such cases the molar teeth require dressing even in a colt. It would be wise to have them examined.

3. This is very peculiar. We know of no conditions that under good care will cause it. Are you sure they were not milked in cases where they gave nothing? All we can recommend is good care and good food.

### Veterinary. Scrotal Hernia.

Colt was born on April 18th last. A few days ago he jumped into the manger, and afterwards I noticed that the scrotum was enlarged on one side, and an examination revealed a rupture. When he is standing I can return it, but it reappears when pressure is released. It is about the size of a quart measure. I have put on a support, which keeps it up pretty well when he is standing, and he acts more like himself. The dam is a poor milker, and the colt somewhat constipated.

**C. H. L. H.**  
Ans.—In the majority of cases nature effects a cure in cases of this kind, but there are exceptions. If the support continues to act well, and does not scarify too much, leave it on. Watch it closely, and if the rupture does not continue to enlarge, do not have him operated on, and it is quite probable it will return before he is a year old, but in some cases it requires two years. Do not leave him castrated until after it disappears. If the enlargement continues to increase in size, get your veterinarian to operate. It is a critical operation, which should not be attempted except by a veterinarian. Teach the colt to eat chopped oats and bran, and, if necessary to avoid constipation, give him one ounce of castor oil daily, or twice daily if necessary, but do not give often enough to cause purgation.

## Ideal Green Feed Silos

### Are built to give you many years of silo satisfaction

ONLY THE BEST GRADE OF CANADIAN spruce, especially selected for our exclusive use, is employed in the construction of Ideal Green Feed Silos.

ALL LUMBER IS THOROUGHLY AIR-DRIED and after being finished is saturated with an especially prepared sealing solution, used exclusively by the De Laval Dairy Supply Co., Limited, which prevents rot or decay, reduces the tendency of the staves to swell or shrink and prevents the acid in the ensilage from injuring the staves.

THIS SEALING SOLUTION WITH WHICH all our silo lumber is treated adds from two to three times to the life of our silos compared with other silos not so treated.

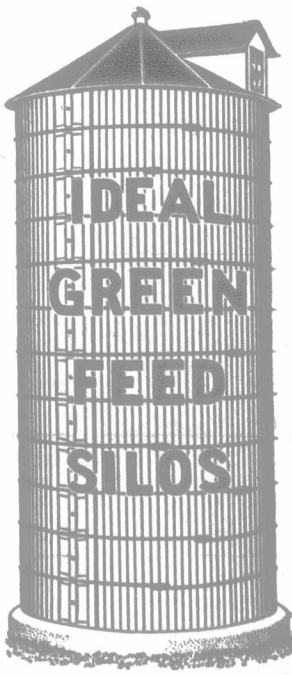
ALL OUR STAVE WOOD IS OF UNIFORM size and age thus insuring an even swell and shrinkage throughout.

ALL IDEAL GREEN FEED SILOS ARE hooped with round iron hoops every thirty inches apart and the hoops at the bottom where the strain is greatest are made heavier. Only malleable iron lugs, made after our own exclusive process, are used. These are much superior to cast iron by reason of their greater ability to resist the action of our Canadian frosts.

THE MATERIALS AND CONSTRUCTION throughout of the Ideal Green Feed Silos are of the very best, and everyone contemplating the erection of a silo this year will find it to his advantage to get our specifications and prices.

Be Sure and Get Our New Silo Book

**DE LAVAL DAIRY SUPPLY CO., Ltd.**  
LARGEST MANUFACTURERS OF DAIRY SUPPLIES IN CANADA  
MONTREAL PETERBORO WINNIPEG VANCOUVER



Doors are only 6 inches apart, can be removed instantly and are always air tight.

Dormer window facilitates filling silo clear to the top. All sizes furnished.

## Shorthorns and Clydesdales

We have seven yearling bulls and seven bull calves from 7 to 12 months. All reds and roans, and of choice breeding. We have some extra good imported males for sale, also some foals. If interested, write for catalogue of their breeding.  
**W. G. PETTIT & SONS, Freeman, Ont.**  
Burlington Junction, G.T.R. Bell 'Phone

## 100 SHORTHORNS IN OUR HERD 100

Our 1913 crop of 22 bulls are all sold, we have 20 extra bull calves coming on for the fall trade. For sale—25 heifers and young cows; those old enough are bred to Right Sort (imp.), or Raphael (imp.), both prize winners at Toronto last fall.  
**MITCHELL BROS.** Farm 1/4 mile from Burlington Junction **BURLINGTON, ONT.**

## MEADOW LAWN SHORTHORNS OF RICHEST AND MOST FASHIONABLE SCOTCH BREEDING, and of high-class type and condition. I can supply young bulls and heifers—Clarets, Roan Ladies, Mildreds, Stamfords, etc. L.-D. 'Phone

**F. W. EWING, R. R. No. 1, ELORA, ONTARIO**

## SHORTHORNS

Scotch, Bates and Booth. Yes, we have them, pure Scotch, pure Booth and Scotch topped Bates, young bulls of either strain. Heifers from calves up; one particularly good two-year old Booth bull, ideal dairy type.  
**GEO. E. MORDEN & SON, Oakville, Ontario**

## Springhurst Shorthorns

Shorthorn cattle have come to their own; the demand and prices are rapidly increasing, now is the time to strengthen your herd. I have over a dozen heifers, from 10 months to two years of age, for sale; everyone one of them a show heifer, and some of them very choice. Bred in my great prize-winning **HARRY SMITH EXETER STN. HAY P. O.** strains. On'y one bull left—a red, 18 months old.

## SHORTHORNS

of breeding, style and quality. If in want of an extra choice herd header, carrying the best blood of the breed, or a limited number of right nice yearling heifers, write us; we can supply show material of either bulls or females.  
**GEO. GIER & SON, WALDEMAR, R. R. No. 1, ONT. L.-D. 'Phone.**

## Glenallen Shorthorns

We offer for sale some of the best young bulls we ever bred, Scotch or Booth breeding, low, thick, mellow fellows of high quality; also our stock bull Climax #81332 = sired by Uppermill Omega.  
**GLENALLEN FARM - R. Moore, Manager - ALLANDALE, ONTARIO**

## BELMONT FARM SHORTHORNS

We are offering 20 heifers from 1 to 3 years, daughters of the 1913 Toronto Grand Champion, Missie Marquis 77713, Scotch and Scotch Topped, several of them show heifers.  
**FRANK W. SMITH & SON, R. R. No. 2, Scotland, Ont.**  
Scotland Sta., T. H. & B. L.-D. Phone.

When writing advertisers please mention this paper.





## Bog Spavin

Cure the lameness and remove the bump without scarring the horse—have the part looking just as it did before the blemish came.

**FLEMING'S SPAVIN CURE (Liquid)** is a special remedy for soft and semi-solid blemish—Bog Spavin, Thoroughpin, Splint, Curb, Capped Hock, &c. It is neither a liniment nor a simple blister, but a remedy unlike any other—doesn't irritate and can't be imitated. Easy to use, only a little required, and your money back if it ever fails.

**Fleming's Vest-Pocket Veterinary Adviser** describes and illustrates all kinds of blemishes, and gives you the information you ought to have before ordering or buying any kind of a remedy. Mailed free if you write.

**FLEMING BROS., Chemists**  
75 Church Street, - Toronto, Ont.

### What Every Dairyman Needs

A clip to hold the cow's tail while milking. Handy and easy to use. Saves the milkers many a nasty blow in the face from the cow's tail while milking. Sent post paid to any address, with full information as to how to use them, upon receipt of 50c. (fifty cents). Address:

**R. A. CHAMBERLIN**  
83 Bayswater Ave. Ottawa, Ontario

**FOR SALE—Two Holstein Bull Calves**  
No. 1 born Dec. 20th, three parts white, nicely marked and a large, smooth, well-grown fellow.  
No. 2 born May 12th, nearly all white, except tips of ears and forehead which are black and a few black spots about neck. He is a large straight and likely looking fellow.  
No. 1 is from a R.O.M. dam and the dam of sires of both is also on the R.O.M. Photo on application. Box 847.  
**Griesbach Bros., Collingwood, Ont.**

### Holstein-Friesian Association of Canada

Applications for registry, transfer and membership as well as requests for blank forms and all information regarding the farmer's most profitable cow should be sent to the Secretary of the Association.

**W. A. CLEMONS, St. George, Ontario**

1 Holstein Bull, 16 mos., 3 Holstein Bulls 8 mos. and under. 2 Canadian Bred Clydesdale Stallions rising two.

**R. M. Holtby**  
Port Perry, R. R. 4  
Manchester, G.T.R. Myrtle, C.P.R.

### Maple Grove Holsteins

There is still a bull fit for service left, of the Maple Grove quality and type, which will be sold below his value; he is from R.O.M. stock on both sides; also a couple of rattling good calves sired by the great King Lyons Hengerveld out of Tidy Abberkirk and Pontiac Korndyke cows, fellows that will make herd headers. If you want such a reasonable price, write.

**H. BOLLERT,**  
R.R. NO. 1, TAVISTOCK, ONTARIO

### Holsteins for Sale

Grandson of Pontiac Korndyke; his dam, sire's dam, and ten sister's records average over 31 lbs. butter in seven days. Choice individual. Price \$300.

**WM. A. RIFF, Hespeler, Ont.**

### Woodbine Holsteins

Young bulls and bull calves, sired by Duke Beauty Pieterje; sire's dam's record 32.52 lbs. butter, and his two grand-dams are each 30-lb. cows, with 30-lb. daughter, with 30-lb. granddaughter. Three generations of 30-lb. cows. If you want a bull that will prove his value as a sire, write

**A. KENNEDY & SON, R.R. No. 2, Paris, Ont.**  
Stations: Ayr, C.P.R.; Paris, G.T.R.

### The Maple Holstein Herd

Headed by Prince Aaggie Mechthilde. Present offering: Bull calves born after Sept. 1st, 1913. All sired by Prince Aaggie Mechthilde and from Record of Merit dams. Prices reasonable.

**WALBURN RIVERS**  
R.R. No. 5 Ingersoll, Ontario

### GLENWOOD STOCK FARM HOLSTEINS

3 yearling bulls for sale, out of big milking strains, at low figure for quick sale. Thos. B. Carlaw & Son, Warkworth, Ont., Campbellford Station.

### Holstein Bull

Nearly white; age 6 months; dam has record of 9,000 lbs. (non-bleed) as a junior two-year-old and sire was second at Toronto Exposition from a 20,000-lb. two-year-old. **G. KEMBER, Sarnia, R. R. 1.**

Please mention "The Farmer's Advocate."

### Questions and Answers. Miscellaneous.

#### Septic Tank.

We have a dug well about 35 feet deep and 3½ feet in diameter, near the house. By partly filling in and concreting, could we use this as a septic tank for sewage? How deep should it be left, and where should the inlet and outlet drains be placed?

ENQUIRER.

Ans.—The valve or second compartment of a septic tank should not be more than three feet nor less than two and a half feet deep. The tank at Weldwood is 12 x 5 x 5 feet, outside dimensions, divided by two four-inch partitions into three compartments, with inside dimensions of about 5 ft. 6 in. x 4 ft. 4 in., 2 ft. 7 in. x 4 ft. 4 in., and 2 ft. 7 in. x 4 ft. 4 in. It is not necessary to make it five feet deep. Only two and one-half feet is effective depth, as the remainder of the wall was built to bring the top of the tank up to the ground level. Three to three and one-half feet would be deep enough on most farms. You would gain little by using the old well. It is not big enough, and would require filling up to the desired height. The soil pipe from the house enters the first chamber near the top. The pipe leading to the second (two are all that is absolutely necessary) is placed at very nearly the same level as the inlet, and runs down to near the bottom of the first chamber. The effluent flows out of ordinary drain tile and soaks away, or may be discharged in tile leading to a farm drain. A fresh-air pipe must lead to the drain for ventilation, and this drain flows out from the bottom of chamber two.

#### Water, Lighting and Power Queries.

Would like to hear from you on the following questions on house fitting. We are constructing new buildings and behind them is a large hill and we would like to put a tank in it to supply the house and barn with water.

1. What size tank would be required to hold enough water for 50 head of cattle and 10 horses as well as to supply the house.
2. Would this tank have to be covered in the ground to keep it from freezing?
3. I intend to have a soft water cistern in the cellar. Could I force the water up with one of those air tanks so as to have the hot water at the cook-stove and could the pipes be so arranged that if the soft water gave out I might turn on the hard water from a cement tank? Would like to have a waste pipe and cess pool.
- Please describe same.
4. Kindly give your ideas on electric light for the farm. Could it be done with a strong battery charged with a small gasoline engine and what would be the approximate cost of a plant large enough to drive a washer, churn and electric iron?
5. Which would be the better, electricity or acetylene for lighting, and what would the difference be in cost?

S. D. Mc.

Ans.—1. A tank 10 ft. long, 6 ft. deep and 3½ ft. wide will supply all. Any three dimensions multiplied together making 190 cubic ft. will be all right.

2. With the quantity of water coming in daily that would be necessary to supply sixty head of stock there would not be much trouble with freezing, even if left entirely open, but if convenient to cover with earth even part way up it would be wise to do so.

3. The air tank could be used satisfactorily in the way described and connections could be made to turn on the hard water if the supply of soft became exhausted.

4 and 5. The gasoline engine and dynamo could be used to charge storage battery, and then the light used either direct from the dynamo or from the battery when the dynamo was not running, but the cost of installing this method will be much greater than installing an acetylene outfit. The electric light, of course, is much more safe and convenient, especially for the barns. As the price of labor for installing varies somewhat you had better consult local plumbers regarding the cost of putting in an acetylene outfit. The price of the electrical outfit may be had by consulting Electrical Supply companies direct.

W. H. D.



### PURE BRED SIRE

#### THE LIVE STOCK BRANCH

Dominion Department of Agriculture

WILL PURCHASE during 1914, a number of CANADIAN-BRED Stallions, Bulls, Boars and Rams.

Animals must be of right type, in good breeding condition and of the following ages:

- Stallions, three to five years.
- Bulls, not under one year.
- Boars, not under six months.
- Rams, not under six months.

All stallions will be purchased, subject to veterinary inspection and bulls subject to the tuberculin test.

Breeders in Eastern Canada having CANADIAN-BRED male animals for sale, filling the above requirements and registered or eligible for registration in the Canadian National Live Stock Records, are requested to communicate with the Live Stock Commissioner, Department of Agriculture, Ottawa.

The purchase of stallions and bulls will be made during the current spring months. The purchases of rams and bulls will be deferred until the autumn.

Communications must state age and breeding of animal offered and price asked.—60271.

## LAKEVIEW HOLSTEINS

Senior herd bull—Count Hengerveld Fayne De Kol, a son of Pieterje Hengerveld's Count De Kol and Grace Fayne 2nd. Junior herd bull—Dutchland Colantha Sir Mona, a son of Colantha Johanna Lad and Mona Pauline De Kol. Third bull—King Canary Segis, whose sire is a son of King Segis Pontiac, and whose dam is 27-lb. three-year-old daughter of a 30-lb. cow. Write for further information to

**E. F. OSLER - - - BRONTE, ONT.**

## FAIRVIEW FARMS

Can furnish you a splendid young bull ready for immediate service, and sired by such bulls as PONTIAC KORNDYKE, the greatest producing sire of the breed, and also the sire of the greatest producing young sires of the breed; one of his sons already has six daughters with records above 30 pounds, RAG APPLE KORNDYKE 8TH, now heading our herd, and a few by a good son of PONTIAC KORNDYKE, and out of officially tested cows. Come and look at them, and the greatest herd of Holsteins you ever saw over, or write me just what you want.

**E. H. DOLLAR, Heuvelton, New York (Near Prescott, Ont.)**

## HOLSTEIN CATTLE

The only two world record Holsteins in Canada are owned by us. There are only three cows in the world that have made over thirty pounds butter, three years in succession; one of them is owned by us. The only bull in Ontario whose dam has given 116 lbs milk a day and made 34.00 lbs. butter in 7 days is owned by us. We have young bulls and females for sale bred on the same lines as our champions.

**D. C. Flatt & Son Long-Distance Phone R.R. No. 2, Hamilton**

### ELMDALE HOLSTEINS

Headed by Correct Change, by Changling Butter Boy, 50 A.R.O. daughters; he is by Pontiac Butter Boy, 56 A.R.O. daughters. Dam's record, 30.13-lbs., a grand dam of Tidy Abberkirk, 27.29-lbs. His service for sale; also young females in calf to him. **R. LAWLESS - Thorold, Ontario**

## Three Dandy HOLSTEIN Bull Calves

FOR SALE, FROM TESTED DAMS.

**F. HAMILTON, HAMILTON FARMS, ST. CATHARINES, ONTARIO**

### WILLOWBANK'S HERD OF REGISTERED HOLSTEIN-FRIESIAN CATTLE

Herd headed by King Korndyke Inka De Kol whose sire Pontiou is the world's greatest dairy sire. Will offer a number of both sexes from this grandly bred young bull and from dam with official 7-day records from 16 to 25 lbs butter in 7 days. **COLLIVER V. ROBBINS, RIVERBEND, P. O., WELLAND COUNTY. 'BELL' PHONE.**


**HOLSTEINS** We have a choice lot of bull calves with strong backing and from dams with records of 18 to 24 lbs. Just the kind you are looking for. Write for extended pedigree, or, still better, come to see us. Prices very reasonable. **D. B. TRACY, Cobourg, Ont.**

**Don Jerseys** Young bulls of breeding age, young cows and heifers, got by our richly bred stock bulls, Fontaines Boyle and Eminent Royal Fern, and out of prize-winning and officially record dam—**David Duncan & Son, R.R. No. 1, Todmorden, Ontario**

**Brampton Jerseys** We are busy. Sales were never more abundant—Our cows on yearly test never did better. We have some bulls for sale from Record of Performance cows. These bulls are fit for any show ring.

**B. H. BULL & SON - - - BRAMPTON ONTARIO**

**SAY "BLACK CAT" BATTERY**



**X CELL DRY BATTERIES**

Cost Less Last Longest

**WHY? Because they have NINE LIVES.**

For sale everywhere. Just say "BLACK CAT." These Batteries positively outlast all other Dry Cells. Made in Canada by the World's expert. Oldest, Largest & most Reliable Battery Factory in the Dominion.

**CANADIAN CARBON CO.**  
690 WEST KING STREET TORONTO.

**Alloway Lodge Stock Farm**

**Aberdeen-Angus Cattle  
Southdown Sheep  
Collie Dogs**

Four litters sired by Imp. Holyrood Marquis are expected shortly, three of them from imported bitches. Order now if you wish to secure a choice pup. **ROBT. McEWEN,** Near London. **Byron, Ontario**

**Oxford Down Sheep** Shorthorn Cattle, Yorkshire Hogs—Present offering: Lambs of either sex. For prices, etc., write to **John Cousins & Sons, "Buena Vista Farm"**; **Harriston, Ontario**

**Maple Grove YORKSHIRES--200 head** Are as good as the best, because they combine the bloods of the following noted sires:—M. G. Champion 20102, Champion boar at Toronto, 1906; S. H. Jack, Imp. 28515, Champion boar at Toronto, 1908, 1909, 1910; and S. H. Romeo 27th, 24653, certainly the best sire we ever owned, and a grand large individual.

Our Brood sows, in view of the above, could not be of a very high class, combining great size, true type, and easy-feeding qualities.

Our present offering—25 sows, bred and ready to breed—a grand lot. Sows and boars, from six weeks old, up to six months. Write us or come and see for yourself. All stock shipped on approval. Satisfaction guaranteed.

**H. S. McDIARMID, FINGAL, P. O., ONT.** Shedden Station. L.D. 'Phone via St. Thomas

**MAPLE LEAF BERKSHIRES**

for sale at reasonable prices, sows bred to farrow in May and June, also young pigs ready to wear; boars 3 and 4 months old, bred from imported stock. Satisfaction guaranteed. **J. Lawrence, Woodstock, Ontario, R. R. No. 8**

Am offering a choice lot of Poland Chinas including boars fit for service and young sows for May farrow also good young Chester Whites and some A1 Shorthorns. Prices easy.

**GEO. G. GOULD** Essex County Edgars Mills Ont.

**TAMWORTHS FOR SALE**

Two sows twelve months old; two sows nine months old; three sows four months old; one boar four months old. Write for prices. **DUNCAN MacVANNEL, ST. MARY'S, ONT.**

**TAMWORTHS**—Some choice young sows, bred for April and May farrow; also a few boars. Write for particulars. **JOHN W. TODD, R. R. No. 1, Corinth, Ontario**

**HILTON STOCK FARM**

We are sold out of Tamworths; also females in Holsteins, but still have some choice bulls for sale, from two to six months, officially backed and right good ones. **R. O. Morrow & Son, Hilton, Ont.** Brighton Station. 'Phone.

**Duroc-Jersey Swine**

Twenty-five sows bred for fall farrow; a few boars ready for service; also one Jersey bull, 11 months, and two bulls, 6 months old, out of high-producing dams. **MAC CAMPBELL & SON, Northwood, Ont.**

**Morrison Shorthorns and Tamworths**

Bred from the prize-winning herds of England and Canada. Have twelve young sows bred to farrow in May, dandies, and twenty young boars fit for service; also some choice cows and heifers of the best milking strain. **CHAS. CURRIE, Morrison, Ont.**

**PINE GROVE YORKSHIRES**

Bred from prize-winning stock of England and Canada. Have a choice lot of young pigs of both sexes, pairs akin to offer at reasonable prices. Guaranteed Satisfaction. **Joseph Featherston & Son, Streetsville, Ont.**

**CLOVERDALE LARGE ENGLISH BERKSHIRES**

Present offering: Boars and Sows all ages, bred from imported stock. Prices reasonable. **C. J. LANG, R. R. No. 1, Hampton, Ont.**

Please mention "The Farmer's Advocate"

**Our English Live-Stock Notes.**

Robert Whitworth, President of the English Hackney Society, held a sale of his own-bred ones on May 13th, and realized £2029 13s. 0d. for 38 head or, an average of £53 8s. 3d., which would go to show that there is still good money in the English type of Hackney, where it possesses a bit of substance along with quality. The stock were sired chiefly by Polonius and Beckingham Square, whose progeny always stand high at the London Show. Five stallions realized £318 3s. 0d. and thirteen harness geldings fetched £1063 13s., which gives the fine average of £81 16s. 4d.

At a similar sale held at Burg in Lancashire, 275 guineas were paid by Robert Jay, a London lover of high-class Hackneys for Bingley Star, a noted showing performer. Here the general average was £63 and a pair of greys went to the bid of A. G. Vanderbilt's representative for 175 guineas. He also bought a grey hack for 64 guineas. Continental buyers fell over themselves to secure bargains at those two Hackney sales. They do know the right type when they see it.

The late William Foster's ponies will have been sold under the hammer, ere this news sees daylight on your side and doubtless some Hackney pony records will be established.

Shorthorns and South Devon cattle of quality continue to pour out of the country to those countries and Colonies which will take them. South Africa is the latest place to suffer from the craze for choice cattle of these breeds, and P. & G. Hughes, of Crewe, Cheshire, and my old friend W. W. Chapman, of London, not speaking, of course, of the great firm of John Thornton & Co., have been shipping stock right and left. The Shorthorns are mostly red in color. To Uruguay Hereford cattle are pouring out in troops, and a rare good lot have the Hughes' sent to Monte Video.

Milking Shorthorns at home are selling well, even ordinary repository sales attracting folk who will go to 50 and 60 guineas for dairy cows and 76 guineas for bulls bred on milking lines.

John Hay, Lachute, Quebec, has bought from Walter Aitkenhead, Polmont, Scotland, the three-year-old Clydesdale stallion, Warlingham, one up to great size and a good straight close-mover.

James Wetherston, Puslinch, Ontario, has secured from Stephen Fleming, Raith Bothwell, a yearling colt Royal Standard by Gallant Stewart, and a promising youngster.

F. Schroeder, Midnapore, Alberta, has bought four Clydesdale colts, and T. B. MacAuley, Montreal, seven mares. All of this contingent comes from the Montgomery Stud, at Netherhall and Banks, Kirkcubright.

**London, Eng. G. T. BURROWS.**

**Angus McTavish was a Lowlander, rich, and thoroughly Scotch.**

He had never seen the Highlands or the beautiful lakes of Scotland, except from a long distance. He paid a visit to America, and in New York was shown all the sights. However, he was not impressed, and still thought the Lowlands of Scotland far superior. As a final attempt to show Angus something that would impress him, his friends took him to Niagara Falls. Angus looked at them critically, and when asked if he did not think them the most marvellous thing he had ever seen, he remarked:

"Aye, mon, they are grand! But do ye ken the auld peacock in Dumfries that had the wooden leg?"

Little Harry wanted a dog. He had many arguments with his mother on the subject. He was sent to a nearby grocery. He was gone so long that his mother became anxious. Stepping to a window, she saw Harry down the street, carefully pulling on a rope, the other end of which was tied around the neck of a small dog. The pup was resisting every step, and on all fours, it was talking to him with every voice of the small world, and when he was loudly as possible, it said, "I've triumphantly entered my room."

"What?" he cried, "What's that?"

"Let me see," he said, "the dog? It's a good one."

"Yes, it is," he said, "but it's a good one."

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**Roofing Economy**

**QUALITY** considered, **Galt Steel Shingles** make the cheapest roofing. Once laid, they are there to stay. They require no paint nor repairs and will last a lifetime. Made of the finest British galvanized steel, they are rust-proof. Fitted with two nailing flanges and two locks, Galt Steel Shingles are absolutely weather-proof, defying wind, snow, rain and frost.

Write to-day for literature and information which will save you hundreds of dollars. Don't put it off and forget. Simply write the one word "Roofing" on a postcard, together with your name and address.

**THE GALT ART METAL CO., Limited**  
150 Stone Road, Galt, Ontario.  
Cor. Richard and Pine Sts., Winnipeg, Man.

**Lightning Protection**

WHAT are you doing in the way of protecting the big outlay of money you have invested in farm buildings and live stock AGAINST LIGHTNING? Without protection you risk your investment in farm buildings and live stock in every lightning storm. You are carrying insurance; sit down and figure what your loss would be if you were burnt out by lightning after collecting your insurance money—also take into account the high cost of building material and stonemasons' and carpenters' wages.

The matter of lightning protection has been taken up by the Government Agricultural College at Guelph, Ontario, also by the Mutual Fire Insurance Companies of Ontario at their annual meeting in Toronto in January, 1914, and they strongly advocate all farmers to protect their buildings against lightning, and to see that the rods are properly put on, as the erection of the rod is one of the most essential parts. They advocate copper rods.

We manufacture the highest-grade copper rods and their equipment that can be put on the market, and are the oldest exclusive lightning rod manufacturers in Canada.

All our agents and their erectors are experienced men trained by the company, so that perfect installation of the rodding can be depended upon. Write us, and we will have our local agent make an estimate for you.

We want a few good live men for territory still open in Ontario, Quebec and Maritime Provinces.

**DOMINION LIGHTNING ROD COMPANY**  
DUNDAS :: :: ONTARIO

I have now for sale 30 extra large well-covered shearing rams 100 shearing ewes and a very fine lot of lambs from my imported ewes. Will be pleased to book orders for delivery later of any kind wanted. **JOHN MILLER, Claremont, P.O., R.R. No. 2, Claremont Sta. C.P.R. 3 miles. Pickering Sta. G.T.R. 7 miles. Greenburn Sta. C.N.R. 4 miles**

**Maple Villa Yorkshires**

Special offering of sows in pig, boars ready for service, and some extra good young pigs of both sexes, at reasonable prices. Long-distance 'phone.

**J. A. CERSWELL, BEETON, R. R. No. 1**

**NEWCASTLE TAMWORTHS, SHORTHORNS AND CLYDESDALES**  
Present offering: boars and sows all ages. Sows bred, boars ready for service, chock full of imported blood and show ring quality; I think the best I ever bred, also younger ones of both sexes. A few nice bulls 4 to 8 months old. Heifers carrying their first calves and others with calves at foot, of splendid milking strains. Two or three nice fillies and mares that are bred to imp. stallions, all registered, prices right. **A. A. COLWILL, Newcastle, Ont. L.-D. 'Phone**

**ELMHURST LARGE ENGLISH BERKSHIRES**  
From our recent importation of sows, together with the stock boar Suddon Torredon we can supply select breeding stock, all ages. Satisfaction and safe delivery guaranteed. **H. M. VANDERLIP, Breeder and Importer, Cainsville, P.O. Langford Station on Brantford and Hamilton Radial.**

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Have a choice lot of sows in pig. Boars ready for service and young pigs of both sexes supplied not akin at reasonable prices. All breeding stock imported or from imported stock from the best British herds. Write or call **H. J. DAVIS, Woodstock, Ont. Long-distance 'phone C.P.R. and G.T.R.**

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# International Harvester Haying Machines

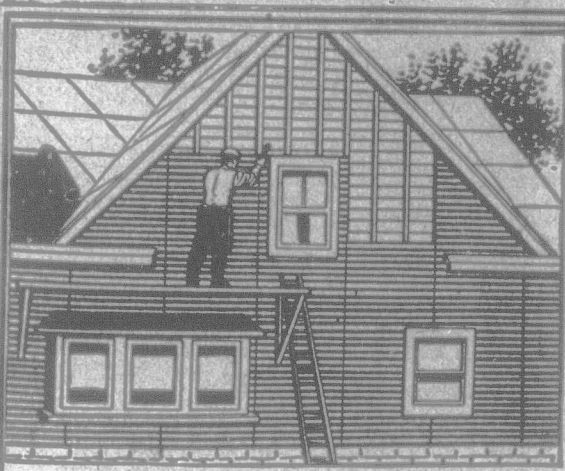


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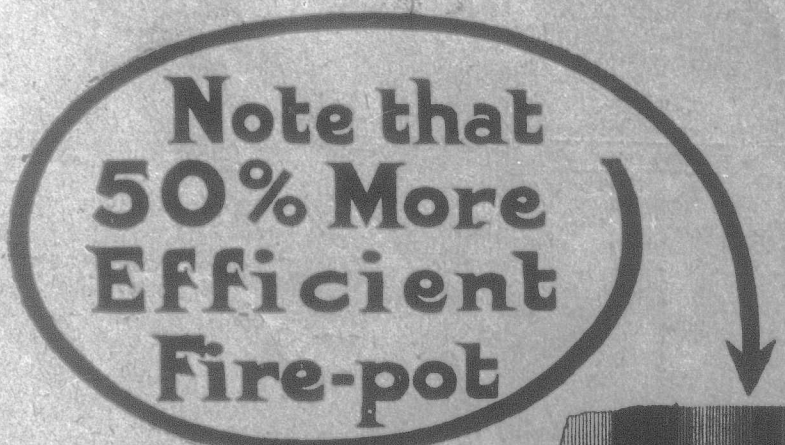
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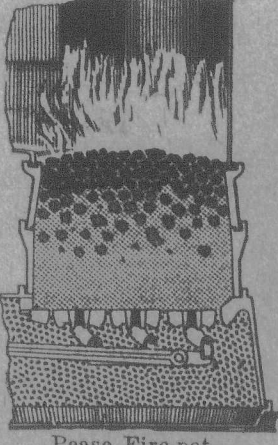
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This is but one of many "Pease" advantages that will surely appeal to your sense of efficiency and economy.

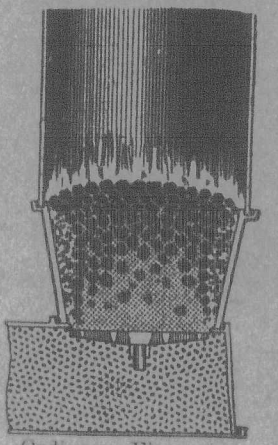
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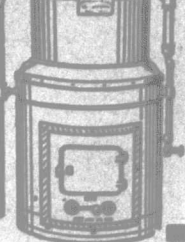
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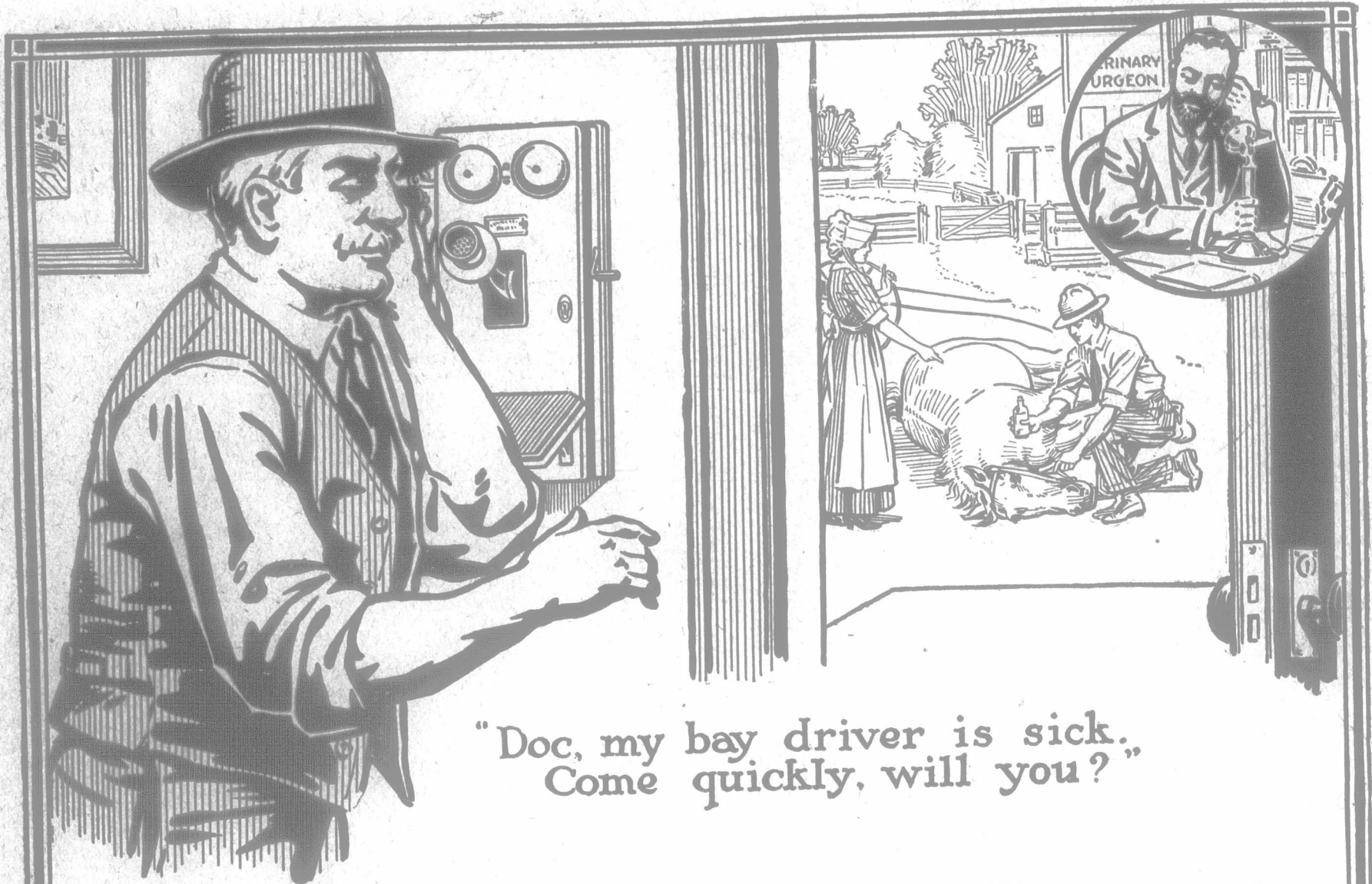


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Come quickly, will you?"

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