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New Ont., and Quebec	Maritime Prov.
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.20	.21
.23	.24
.25	.26
.25	.26
.28	.29
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.44	.46
.49	.52

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.75	.80
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THE FARMER'S ADVOCATE

AND HOME MAGAZINE

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

Dairy and Cold Storage
Commissioners Dec 31, 14
Dept of Agriculture



VOL. XLIX.

LONDON, ONTARIO, MARCH 19, 1914.

No. 1121

Make up your mind now to test PURITY FLOUR on your next baking day

THERE is absolutely no question about the superior qualities of PURITY FLOUR. You can make more bread and better bread with PURITY than with the same amount of any other flour. PURITY is a rich, strong flour—it swells into nice big nutritious loaves, while it's just the flour to use if you want to bake cakes, pies or pastry you wish to be particularly proud of.

Now's the time to prove to your own satisfaction that PURITY is the best flour milled—to prove the truth of all claims made for PURITY FLOUR and to do so at our risk.

Order a sack of PURITY FLOUR to-day? Prove its real worth for yourself. If it does not give you complete satisfaction the grocer will cheerfully return your money. You certainly owe it to yourself to know the reasons why we so heartily guarantee PURITY—also the reasons why

PURITY FLOUR

Makes

“More Bread and Better Bread”
and—Better Pastry too



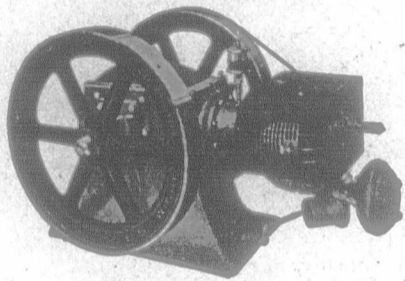
OUR CLAIM

Every "NEW-WAY" Air-Cooled Engine is guaranteed to cool and deliver its rated power in any climate for any length of time.

Give it the ordinary care necessary to any piece of machinery--overheat it--and you will get your money back and big interest.

Ordinary care on our engine means less care than is necessary on ordinary, or water-cooled engines.

THE "New-Way"



A SELF-CONTAINED, SELF-OILED, SELF-OPERATED, ECONOMICAL, HEAVY DUTY, DIRECT COOLED ENGINE

- No Freeze-ups.
- No Water.
- No Bursted Hoppers or Pipes.
- No Oil Holes.
- No forgotten bearings.

Don't even think of buying an engine until you have seen the "NEW-WAY" in operation.

WRITE FOR CATALOGUE DC 12 WHICH TELLS HOW TO MAKE MONEY.

The "NEW-WAY" Motor Company of Canada, Ltd., Welland, Ont.

THE AYLMEYER BRONZE SPRAYER

Won highest award at St. Petersburg, Russia, over all Canadian, French and German Pumps. Also secured first place at Manchester (England), Toronto, Ottawa and Halifax.



No. 2.—Outfit A

SPRAYER NO. 2.—OUTFIT D

Being Outfit A, ten feet of hose, with couplings attached, two Bordeaux nozzles, one brass stopcock, one Y, one long iron extension rod, without barrel. Price.....\$15.25
Extra hose, per foot......12

For lined bamboo extension rod, in place of iron extension rod:
Add.....\$1.50
With barrel..... 3.00

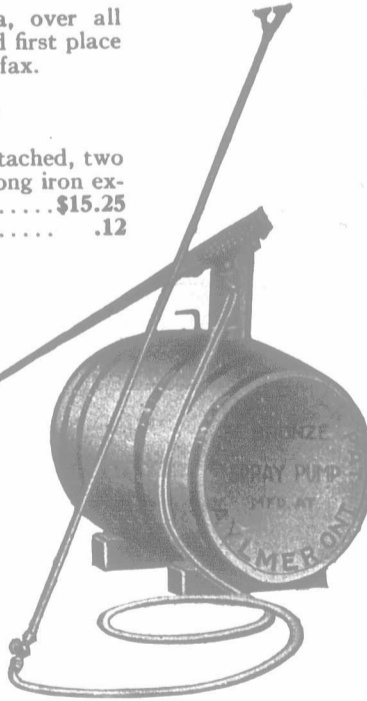
SPRAYER NO. 3.—OUTFIT E

Being Outfit A, two lines of hose, ten feet each, with couplings attached, four Bordeaux nozzles, two brass Y's, two brass stopcocks, and two eight-foot iron extension rods, without barrel.

Price.....\$22.50

With bamboo extension rods in place of eight-foot iron. Price.....\$25.50

With barrel..... 3.00



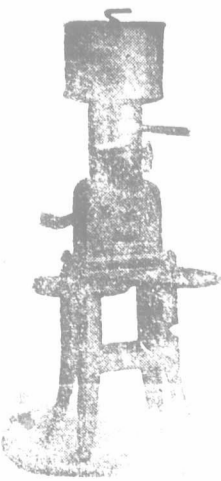
Sprayer No. 2—Outfit D

Our Catalogue gives full information as to sizes, capacity, equipment, etc. Write us for one. If your dealer can't supply you, your mail orders will receive our prompt attention.

The Aylmer Pump & Scale Company, Limited
AYLMER, ONTARIO

WE SELL DIRECT. GET PRICES ON
DILLON'S LITTER CARRIER
R. DILLON & SON OSHAWA, ONTARIO.

FARM AND SHOP
BLACKSMITH'S
FORGE 6 85
HAMILTON, CANADA
FORMERLY STANLEY MILLS & CO., ESTABLISHED 1850



\$15 and Upwards

Whether you have but one cow, or if you have fifty cows, we have a high-grade Cream Separator, suitable for your requirements, at a price you can afford to pay.

We send you a machine, on FREE TRIAL, anywhere in Ontario or Eastern Canada, and prepay the freight. Thoroughly guaranteed. LOW PRICES. EASY PAYMENTS. You take no risk whatever, for you settle for it only if satisfied.

Send for Circular "A" to-day, giving particulars of our best and other prices, etc. Agents wanted.

NATIONAL MACHINE CO., Brighton, Ont.
CREAM SEPARATOR, St. Hyacinthe, Que.

When writing to the publisher please mention "The Farmer's Advocate."

Change Your Seed

Below will be found a list of Seed Grain carefully selected, nearly all grown in Wellington County. Farmers wishing a change of Seed would do well to look this Ad. over.

"The Best is the cheapest--get the best regardless of price"

Oats—O.A.C. 72 (new), price \$1.15, 10-lbs. \$1.00, Bush., \$3.00 including bag; Daubeney (Very Early), ripens with Barley, 90c. Bush., 10 Bush. lots, 85c. Bush., bags extra; Bumper King, 70c. Bush.; Tartar King, 60c. Bush.; White Wave, 70c. Bush.; Sheffield Standard, 60c. Bush.; Banner, 60c. Bush.; Derby, 65c. Bush.; Irish White, 60c. Bush.; Sensation, 60c. Bush.; Siberian, 65c. Bush.; Abundance, 65c. Bush.; Snowdrop, 65c. Bush.; O.A.C. No. 21 Barley, 90c. Bush., 10 Bush. lots, 85c.; Black Barley (Hullless), \$1.40 Bush. (60-lbs. to Bush.); Wild Goose Wheat, \$1.35 Bush.

Timothy Seed, 99 1/2% pure, \$4.00 Bush., bags included.
Red Clover No. 1, \$12.00 Bush.
Alfalfa No. 1, \$ 9.00 ..
Alsike No. 1, \$ 3.00 ..

All Prices are Ex Warehouse, Guelph.

Bags Extra Cotton, 25c. each (except where noted).

Terms: Cash with order. "Will not send C.O.D." Goods can be returned if not satisfactory and money refunded.

Ask us about Seed Potatoes also Corn.

A carload of Oil Cake just arrived, \$1.60 per bag; in 5 bag lots or over, Ex warehouse.

HEWER SEED CO.

90 Macdonnell Street, East
GUELPH :: ONTARIO

"Mention this paper"

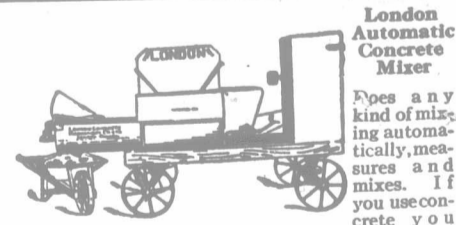
SHORT DATE MORTGAGES

WE INVEST SAFELY, SMALL SUMS OF \$500 AND UPWARDS, FOR RESIDENT AND NON-RESIDENT INVESTORS. SECURED BY CHOICE RESIDENTIAL AND BUSINESS PROPERTY IN TORONTO, TO YIELD, NET -

8% TO 10%

NOTE: No inconvenience to you in caring for investments. We collect and remit interest and principal promptly during the mortgage period without charge. Write for Booklet.

A. L. MASSEY & CO.
8 WELLINGTON ST. E. TORONTO.



London Automatic Concrete Mixer

Especially adapted for mixing concrete automatically, measures and mixes. If you use concrete you better write us for price of this machine. We have the largest line of concrete machinery of any firm in the world. Tell us your requirements. London Concrete Machinery Co., Dept. B. London, Ont.

Corn That Will Grow

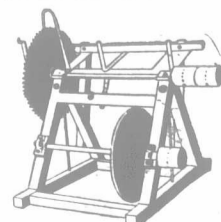
Canadian-grown seed corn. Your money back if not satisfied.

J. O. DUKE, RUTHVEN, ONT.

Farmers of Ontario!

Are you requiring help this Spring? Parties of young men and boys are now coming forward. For full particulars apply

BOYS' FARMER LEAGUE,
DRAWER 126, WINONA, ONTARIO



Wood Saws

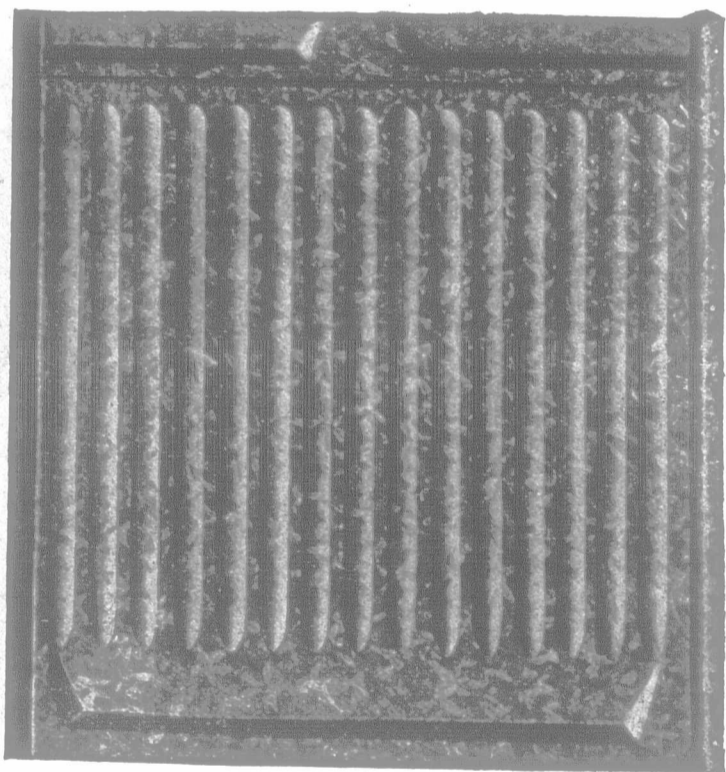
All kinds. Also pumps, grinders, etc. Write for Bulletin AC-1 and special prices.

GILSON MFG. CO.
2409 York St.
Guelph, Ont., Can.

Two Elements You Can't Eliminate FIRE! LIGHTNING!

THESE are indeed dreaded words for the country dweller where fire protection is not available.

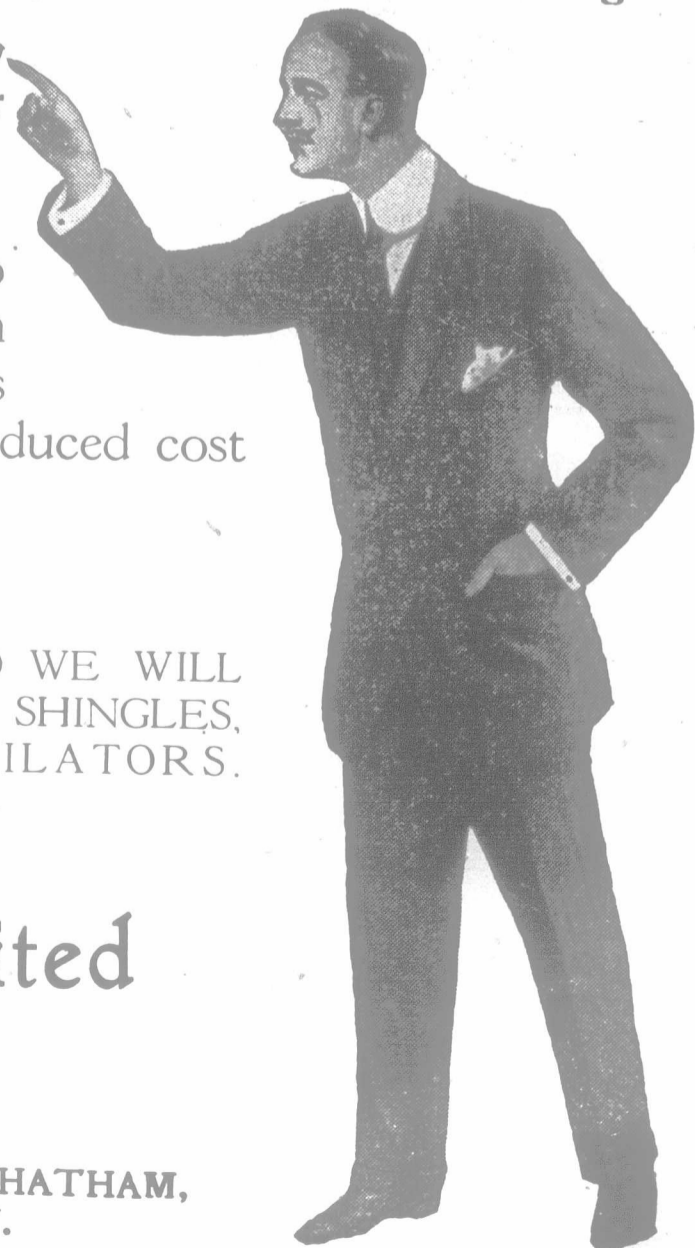
But the Farmer can add to his peace of mind, reduce his insurance premiums, and insure absolute immunity from fire and lightning, by roofing his barn with the big "George" Shingle (24" x 24") and his dwellings and smaller buildings with the "Oshawa" Shingle (16" x 20") of identical pattern and design, and by using Pedlar's "Perfect" Metal Siding for his walls.



An All-Metal building, properly connected by conductor pipe or wire to ground cannot be damaged by lightning.

Nor is there any place where engine sparks or other fire can lodge and do serious damage or complete destruction.

PEDLAR'S METAL SHINGLES are your sure protection from any kind of elemental damage—
Wind, Storms,
Rain, Snow or
Hail.



They give greater service and satisfaction at no greater cost. Send for our Bulletin L.F., on "Farm Buildings and Lightning" with references from authorities and Insurance officials, showing reduced cost of insurance on all-metal Buildings.

DROP US A LINE GIVING SIZE OF BUILDINGS, AND WE WILL SUBMIT COMPLETE ESTIMATE OF COST ON METAL SHINGLES, CORRUGATED SIDING, "SUPERIOR" BARN VENTILATORS.

The Pedlar People Limited

Oshawa, Ontario

ESTABLISHED 1861

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prices.

SON MFG. CO.
2409 York St.
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LIFE INSURANCE FOR YOUR HOUSE

A TREE often lives several hundred years. Nature has protected the wood by covering it with bark to shield it from the elements.

When trees are sawed into lumber, Nature's protection is lost. Therefore, the wood used in your house must be paint protected to insure it against wear and weather.

"100% Pure" Paint is a good life insurance policy on your house. It protects against decay—pays for itself, over and over again, in the repairs it saves—adds value and beauty to the building as well as long life to the wood.

Martin-Senour "100% Pure" Paint

is most satisfactory for all outside and inside painting. "100% Pure" is genuine White Lead, Oxide of Zinc, purest Colors, and Linseed Oil—ground to extreme fineness by powerful machinery—the combination of which produces a paint that is greatest in hiding, covering and wearing qualities—and makes it the cheapest to use as well as the most satisfactory.

Write for our booklet, "Town and Country Homes". It gives you many helpful suggestions in Color Harmonies, and is free for the asking.



The Martin-Senour Co.

Limited
MONTREAL.

CLOVER SEEDS

GOVERNMENT STANDARD

Grown in County of Haldimand on good clean farms. We guarantee Seed to satisfy you on arrival, or send it back at our expense. These prices good until next issue.

ALFALFA, Home grown,	\$11.00 Bush.
ALFALFA, Northern grown,	\$ 8.50 Bush.
RED CLOVER	\$10.50 Bush.
ALSIKE	\$11.00 Bush.
TIMOTHY	\$ 4.00 Bush.

Bags are 25c each extra. Cash to accompany order. Ask for samples if necessary.

If you want lower grades enquire. We also make splendid Family Flour and have Feed for sale.

The Caledonia Milling Company, Limited
Caledonia :: :: Ontario

The CULTIVATOR That Can't Be BEAT



This Testimonial Will Tell You.

Dear Sirs:
I have found your Spring Tooth Cultivator a first-class implement for the cultivation of all ordinary farm, garden, root and vegetable crops. It has also given satisfaction as a potato digger.

E. J. MAHONY,
Stoney Creek.

Write to-day for booklet giving particulars.

THE HALL ZRYD FOUNDRY CO. LIMITED
Makers of Pilot Stoves, Ranges and Furnaces
HESPELER :: :: ONTARIO

MAKE BIG MONEY PULLING STUMPS

Pull the stumps from your fields and replace them with big crops. Don't pay taxes on idle land.

The Hercules All Steel Triple Power Stump Puller

pulls an acre of stumps a day. Pulls biggest stump in 5 minutes. Guaranteed against breakage for 3 years. 30 days free trial. Send name for book, free—and special low-price offer. Address Hercules Mfg. Company, 1936-22nd St., Centerville, Iowa, U. S. A.



Tile Drainage is the Goose that lays the Golden Egg

PROPER drainage has often doubled the yield per acre. It makes worthless land produce good crops. It often saves a fourth to a half of the fertilizer bill.

BUCKEYE TRACTION DITCHER

A perfect trench at one out

This machine reduces the cost of putting in tile drainage because it cuts down the cost of labor to almost nothing. Drainage work that would require several men's work for several weeks can be done in a few days with the help of the Buckeye.

If you believe in being up-to-date and in using common-sense business methods on the farm, get the Buckeye proposition.

Write today for the Buckeye book of facts No. 22

The Buckeye Traction Ditcher Co.
FINDLAY, OHIO

Builders also of Buckeye Open Ditchers and Buckeye Gasoline Engines for farm use

SOW SIMMERS SEEDS

ESTAB'D 1856

Used by successful planters for over half a century

Our large and beautifully illustrated CATALOGUE FREE

J. A. SIMMERS, Limited
TORONTO, ONT.



MORE and BETTER WHEAT

Hundreds of Farmers are growing it by the use of Davies Special Fertilizers YOU can too. Send for Free Booklet.

THE DAVIES COMPANY
WM. DAVIES LIMITED
WEST TORONTO, ONT.
We have an agent near you

FENCE FOR SALE

2,900 rods 7-bar 44-inch, all No. 9 fence; 9 stay^o to rod; 40-rod rolls; in lots to suit. Price, 20c per rod. Also, 1,740 rods 8-bar 51-inch, all No. 9; 8 stays to rod; 40-rod rolls; 23c. per rod, f.o.b. Walkerville. Cash with order. This fence is highest grade and perfect in every particular. It is special only in height. Also have a small amount of 9- and 10-bar.

The Empire Fence Export Company, Limited
93-B Church St., Walkerville, Ont.

Please mention "The Farmer's Advocate."



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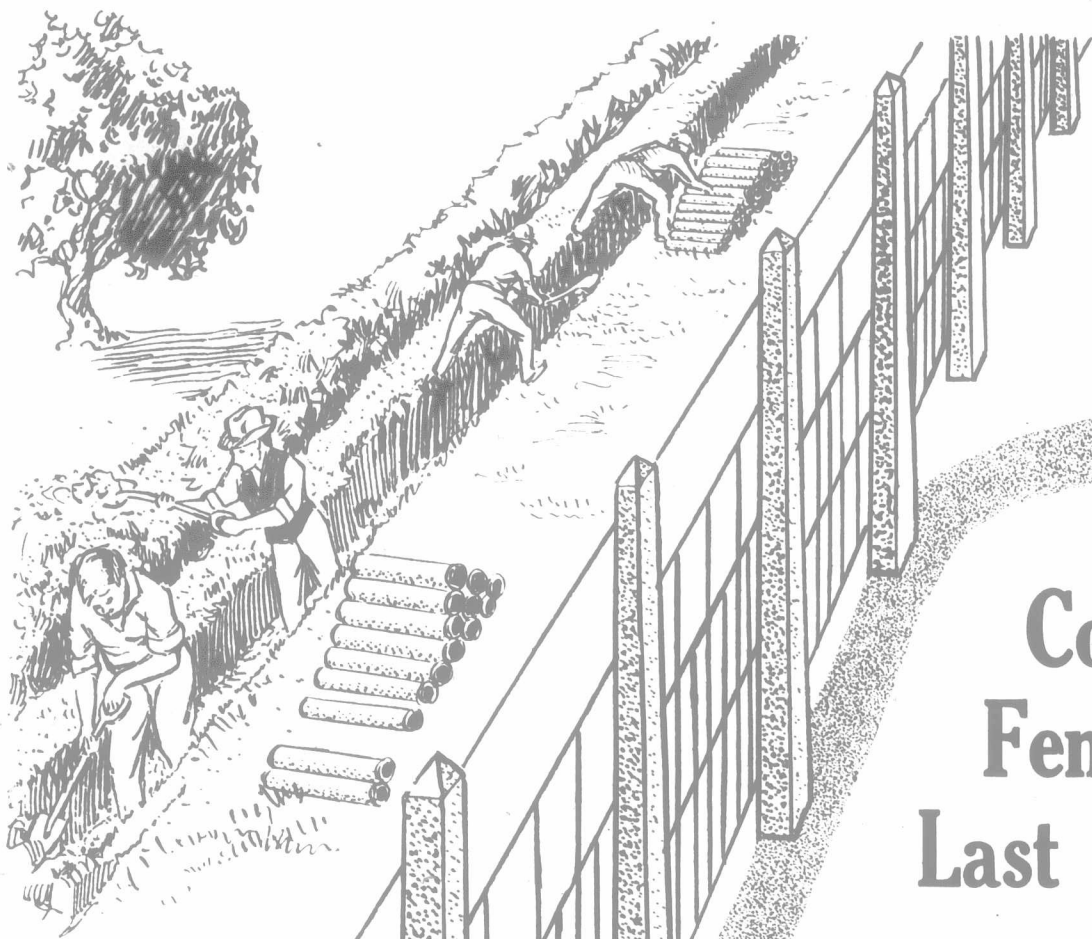
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bar 51-inch, all No. 9;
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Also have a small

Company, Limited
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Concrete Fence Posts Last Forever

THEY never rot away in the ground. They stand the hardest knocks and never have to be replaced, for they are practically everlasting. They are easily and cheaply made, and are the most satisfactory of all fence posts.

Concrete Drain Tile Cannot Decay

Concrete drains do not decay and are cheaper, because they do not crumble and stop up drains, hence they need no digging up or relaying.

Let us send you this free book, "What the Farmer Can Do With Concrete." It shows you how to make concrete fence posts, and will save you many dollars when doing other building 'round the farm.

Farmer's Information Bureau
Canada Cement Company Limited
562 Herald Building, Montreal





QUALITY AND EFFICIENCY
ARE MAIN ESSENTIALS IN A PIANO

YOU GET THESE IN A
BELL PIANO

We take the time and pains to build them right.
There are many good features in the BELL never found in other makes.
Information in our (free) catalogue No. 40. Send for it.

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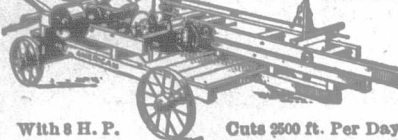


You can make winter a harvest time, with money-making crops of lumber, if you have an "American" Portable Saw Mill. Your own wood lot, and your neighbors' await your axe and your saw and your mill, ready to yield a valuable crop of first-class lumber that will find a ready local sale at good prices. You have the team, the time and the engine. Buy an inexpensive "American" mill and you'll have all the outfit you need to do a profitable lumbering business. Start with your own wood lot, then work out into the country around you. Every wood lot has money in it for you. Show its owner how you can make lumber and money for him. Begin by sending to us for our new book No. 32 which tells the story. Write nearest office today.

In the largest mill or on the farm the American is recognized as STANDARD.

AMERICAN SAW MILL MACHINERY CO.
115 Hope Street, Hackettstown, New Jersey
1887 Terminal Building, New York

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NEW ORLEANS SEATTLE



With 8 H. P. Cuts 2600 ft. Per Day

Potato Profits

depend largely on how the crop is planted. Every skipped hill is a loss in time, fertilizer and soil. Every double wastes valuable seed. It means \$5 to \$50 per acre extra profit if all hills are planted, one piece in each. That is why

IRON AGE 100 Per Cent Planters

often pay for themselves in one season on small acreage. They also plant straight, at right depth, 12 to 24 inches apart. With or without fertilizer distributor. Ask your dealer to show you this Planter and write us for booklet.

"100 Per Cent Potato Planting" and copy of Iron Age Farm and Garden News.

The Bateman-Wilkinson Co., Ltd., 415 Bymington Ave., Toronto, Can.

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MEMORIAL BELLS A SPECIALTY
FULLY WARRANTED
McSHANE BELL FOUNDRY CO.
BALTIMORE, Md., U. S. A.
Established 1854



DE LAVAL CREAM SEPARATORS
are not the mail order or agricultural implement kind

THERE ARE SEVERAL KINDS OF CREAM SEPARATORS, but De Laval Cream Separators are of a kind that puts them in a class by themselves.

DE LAVAL CREAM SEPARATORS ARE MADE BY the best engineers, with the best equipment from the best materials, by the best workmen, and in the best shops of the kind in the world, all devoted solely to the production of the best cream separator.



THEY ARE NOT THE KIND OF separators mail order houses contract for wherever they can be made cheapest, nor the kind that agricultural concerns manufacture along with corn shellers, plows, mowers, reapers, threshers,

gasoline engines, cow milkers and the like, none of which begins to compare in mechanical quality or refinement with what the cream separator should be.

DE LAVAL CREAM Separators are the kind that 98 per cent of the creameries use, where any loss in quantity or lack in quality of product means business ruin, as it always has ultimately to every creamery

that did not replace an inferior separator with a De Laval. PRECISELY THE SAME KIND OF DIFFERENCES exist in farm as in factory separators and precisely the same reasons apply to the use of cream separators on the farm as in the creamery, though they may not make or break the farmer as they do the creameryman where the farmer has other crops and products to rely upon.

THE DIFFERENCES BETWEEN DE LAVAL AND the mail order and agricultural implement kind of cream separators are fully set forth and made plain in a De Laval catalog to be had for the asking, while the machines themselves best tell their own story placed side by side, and that every De Laval local agent is glad to afford any prospective buyer the opportunity to do.

If you don't know the nearest De Laval agent, simply write the nearest main office as below.

Fill out the coupon or give information asked for in a letter or postal and get this 72 page book free.



De Laval Dairy Supply Co. Ltd., Peterboro, Ont. Please mail me, postage free, your Dairy Handbook.

I keep _____ cows. I sell cream, make butter, sell milk (which?) _____ The make of my Separator is _____, used _____ years.

Name _____ Town _____ Prov. _____

DE LAVAL DAIRY SUPPLY CO., LIMITED
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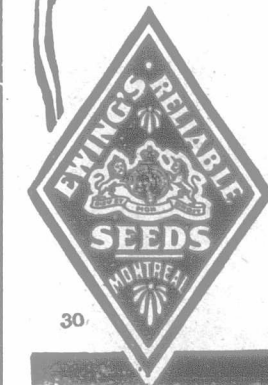
50,000 Branches and Local Agencies the World over



A Garden of Beauty and Fragrance

WHETHER you love the dear old Marigolds, Heliotrope, Nasturtiums and Petunias—the gorgeous Poppys and Asters—the many-hued Sweet Peas—the heavy-scented Nicotiana — or the huge and picturesque Ricinus—you'll find in Ewing's Catalogue the particular varieties which will make your flower garden a real satisfaction.

Ewing's Reliable Flower Seeds have been delighting beauty lovers for more than forty years. Write for Illustrated Catalogue to-day, and if your Dealer hasn't Ewing's Seeds, order from us direct.



THE
WILLIAM EWING CO., LIMITED,
Seed Merchants,
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CUNARD LINE

Canadian Service
New Magnificent Steamers.

ANDANIA ALAUNIA
ASCANIA AUSONIA

One Class (II) Cabin. Low Rates.
IMMIGRATION DEPARTMENT
FARM HELP SUPPLIED
No Charge Made.

Write immediately, stating whether married couples, families or single persons wanted; also if experienced, partly experienced or inexperienced help required.

State wages and conditions. Requisition forms supplied upon application. Utmost care given to selection. Apply:

The Cunard Steamship Co., Ltd.
114 King Street West, Toronto.

Buy your Seed Oats direct from the grower.

PURE BRED DAUBENEY EARLY OATS

These oats are grown from O. A. C. seed and have been specially selected on our farm for 3 years. We guarantee them free from noxious weed seeds and barley. Price 80 cents per bushel, bags free. 20-bushel orders 75 cents, bags free.

W. G. STARK & SON, Chatham, Ont.

The Farmer's Advocate and Home Magazine
Published Once a Week. \$1.50 per Year in Advance.



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Beauty
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you love the
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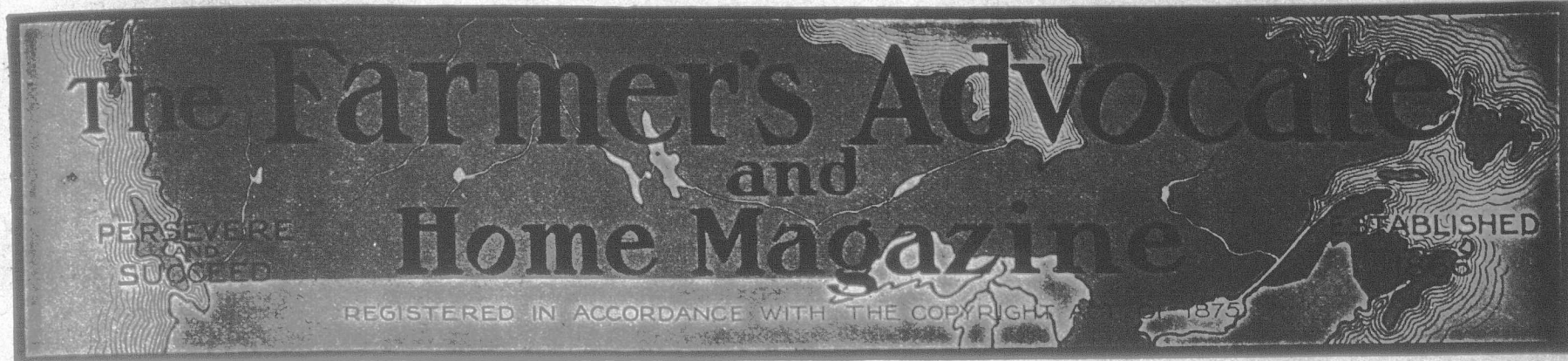
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Chatham, Ont.



VOL. XLIX.

LONDON, ONTARIO, MARCH 19, 1914.

No. 1121

EDITORIAL

The man who thinks decides. He who does not think drifts.

Get to the bottom of all questions worthy of your thought.

A few minutes with the monkey wrench now may save you half a day in the seeding field next month.

Be ready when the land warms up to the temperature necessary for seed germination and plant growth.

Consumers should not blame the farmer for all the high cost of living. Wars and rumors of wars have played their part.

If the market price of grain does not justify growing it for sale in the raw state, feed it to some class of stock which will make it pay.

What was your experience during the cold spell with silage freezing around the walls of the wooden, solid cement-concrete or hollow block silo, as the case might be?

Time was when governments were expected to originate and execute their policies. The modern way is to turn the task over to a commission and then supply the funds.

Having skinned most of the coops in the world's poultry yard, the Armament Trust are now smacking their lips over Canada as the next fine, fat goose to be picked to the bones.

If the United States alters the Panama tolls rules, as seems probable, it would not be good judgment on the part of Great Britain to refrain from exhibiting at the Panama Pacific Exhibition.

If you want anything from the Government, there are at least two ways of getting after it, the quiet lobby of Sir Jingo McBores at the Capital and the spectacular special train with a thousand delegates.

There is always room for improvement. Give the 1914 crop a better start than the 1913 crop had by sowing cleaner, purer and plumper seed, sowing it earlier if the land is ready, and sowing on better-prepared soil.

A Western farmer writes: "For most of us, now is the time not to buy, nor yet to sell, but to give extra care to and make the most of whatever live stock we possess." How does this fit on the farms of the East?

The Mail and Empire in an admirable editorial article describes the recent message of President Wilson in favor of repealing that portion of the Panama Canal Tolls Bill discriminating in favor of U. S. vessels as "one of the noblest deliverances ever made to Congress by the Chief Magistrate of the United States."

Soil Exploitation or Farming.

The cultivation of the soil for food products or any other useful or valuable growths of the field or garden is a dictionary definition of agriculture, but all agriculture is not good cultivation—farming that pays. There is soil tillage or so-called farming practiced by the wholesaler which is nothing short of exploitation, soil robbery, mining the land, or the utilization of schemes intended to work to the advantage of the farmer without regard to the rights of the soil with reference to future plant growth. If a business man is in business for several decades he does not attempt to exploit those with whom he deals. He does not attempt to get large amounts of his customer's money without giving something of value in return. Strictly selfish utilization of business opportunities would quickly cut off the various channels of trade through which the business is fed and maintained. In short, exploitation means ruination. The same thing holds true on the farm. The farmer is or should be a business man and like the manufacturer, the wholesaler or the retailer he must plan to give something of value in return for the crop which his fertile fields yield him. The supply of plant food is not inexhaustible as many of those who yearly scratch the back of old Mother Earth and sow their seed with little thought to the demands of the crop seem to think. Continuous cropping cannot keep cash coming in unless fertility is supplied in some manner. The plant must have sufficient food or it will develop a sickly, withered stock with a short, partially-filled head—the unprofitable effort of the degenerate plant to reproduce itself. A half-starved horse or a half-fed man is a failure and a crop struggling for a small amount of plant food, much of it in an unavailable form, is also a failure. It costs more in many cases to produce a poor crop of grain than it brings at market prices. Then what is the remedy—farm, do not exploit. Grow crops not for sale in the raw state, but manufactured to the highest degree of which your plant is capable. If it is not equipped with the machinery to turn out the highly-finished article which is in demand and which yields best returns, then equip it. What does it need to make the farm a manufacturing centre and change it from an exhausted, soil-fertility mine, operated on a small scale at small profit or a loss, to a thriving plant turning out large quantities of finished products at a profit—a real farm? The requirements are first a thinking man as working manager and then good live stock as the most efficient machinery to manufacture the grain, hay, roots and fodder which the farm has produced into high-priced meats, milk and dairy products and at the same time to so utilize the plant food which these crops have taken out of the soil that the major portion of it goes back to replenish the fertility of the land. With this are associated suitable rotation of crops and sufficient and judicious tillage—a short rotation and good, deep, thorough cultivation in place of continuous cropping and merely scratching the top of the soil. This is farming. Are you farming or exploiting your soil?

Cultivation and the Crop.

Every man who is desirous of success on the land paints a prosperous picture in his mind's eye at seeding time of wide acres of heavy-headed golden grain nodding lazily in the mid-summer heat and imagines himself sitting on the seat of the self binder urging on his three-horse team as a thrill passes through his system watching the endless canvas elevate its deep layer and the discharge arms clicking off the long, bright sheaves bearing the bushels of precious grain. In his enthusiasm he is prone to depend too much upon wind and weather, sun and moisture, the natural fertility of the soil and the action of the air—all very uncertain. He reads that crops should be in the ground early and he sees his neighbors making all haste to be the first "done seeding." The spirit of spring is contagious and imbues everyone with the craze for speed. In the rush the cardinal point is often overlooked that the kind and amount of cultivation given is a limiting factor in crop production. Cultivation makes the crop in many cases and the lack of it ruins it. For the sake of an extra day or two do not, under any circumstances, work the land before it is ready. Many a field has been so badly run together through this mistake that it baked and the crop yield was a disappointment. Light cultivation is generally favored for spring crops on fall-plowed ground, but the light cultivation does not mean slight or slighted cultivation. A seed bed must be prepared if a good crop is expected and what will produce a good seed bed or good tilth on one field is often not sufficient on another. Cultivate, disk and harrow until the soil is thoroughly pulverized to a sufficient depth to make a finely-pulverized bed for the grain. If the condition of the soil does not suit you after the usual number of strokes with cultivator and harrow, go over it again. It will usually prove very profitable. The young plant requires fine soil with plant food rendered easily available in order to get the proper start. A poor start is generally a poor finish. The old drag harrow does not get the credit it should and is not used to the extent that its importance warrants. Try it ahead of the cultivator and an extra stroke or two after the disk or cultivator or even after the grain drill will usually increase tilth. If there is one thing that demands quick and thorough action it is seeding. Do it rapidly, but thoroughly. "Scratching it in" should not be tolerated. Seeding slighted means a light harvest.

Try an Experiment.

True it is that our governments are expending large amounts of money to equip and maintain agricultural experiment stations throughout the country, and true it is that the average farmer has little time to devote to experimental work, which is generally rather too costly for the individual, if carried on on a large scale; however, no matter how many experiment stations we may have, they can never become numerous enough to do certain work for individual farms. No farmer should attempt to make his farm an experimental farm. He should be past the experimental stage in almost everything, but he is in a good position to conduct each year one or two small experiments in the work in

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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1. THE FARMER'S ADVOCATE AND HOME MAGAZINE is published every Thursday. It is impartial and independent of all cliques and parties, handsomely illustrated with original engravings, and furnishes the most practical, reliable and profitable information for farmers, dairymen, gardeners, stockmen and home-makers, of any publication in Canada.
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which he is particularly engaged and which may be of value to him in future.

As an instance of the importance of the individual farm experiment, we can think of nothing better than fertilizers. No man can tell what his soil requires without at first testing it out, and we would urgently advise many of our readers who have an idea that their farm needs commercial fertilizer or is deficient in some one or two of the ingredients necessary to plant growth to make tests on their own soil. These need not be very exhaustive, nor need not require much time or experience in carrying out. If carefully done, the owner knows just what his farm requires and has not to take the advice or counsel of others. While not necessarily exhaustive, all experimental work must be accurately carried out or it is of little or no value. Accuracy and thoroughness are the keys to success.

There are certain varieties of farm crops which have been exhaustively tested out at the large experimental stations and have proven superior for general farm practice to other varieties. It adds interest to the work of farming to try one of these leading varieties of one of the staple crops against another leading variety and find out which does the best on your own type of soil. Experimental work will tend towards thoroughness in everything that is done on the farm and thoroughness should be cultivated on every farm in this country. There is too much haphazard work on most farms and guessing too often takes the place of actual facts. No farmer should attempt to carry on extensive experimental work, but all should do a little to improve their own conditions and aid the experimental stations in reaching conclusions. Soils vary, seasons vary and methods of cultivation vary. Study these on your own land.

Nature's Diary.

By A. B. Klugh, M.A.
THE PINES.

Where the cold gray granite gleams
We stood in our serried ranks,
But now we're mostly timbers,
Or a pile of one-inch planks.

And this is the song of the Pines
As the wind sways them backwards and forth,
The kings of the forest primeval,
The giant Pines of the north.

In the winds of many winters
Have our hardy branches swayed,
In and out among our needles
Summer's gentle zephyrs played.

And this is the song of the Pines
In the wind sways them backwards and forth,
The kings of the forest primeval,
The giant Pines of the north.

In springtime in the northland,
In the shadows that we cast,
We held the snows of winter
Till the river's flood was passed.

And this is the song of the Pines
As the wind sways them backwards and forth,
The kings of the forest primeval,
The giant Pines of the north.

Thus the flight of time unheeding
We stood through ages past,
Now before the axe and fire
Our race is falling fast.

And this is the song of the Pines
As the wind sways them backwards and forth,
The kings of the forest primeval,
The giant Pines of the north.

The Pines are an ancient race. When the seed-plants were evolved from their fern-like ancestors the Coniferae were the first types to ap-

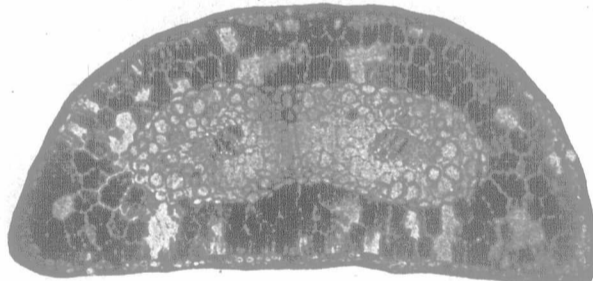


Fig. 1—Photomicrograph of cross-section of the leaf of jack pine, showing heavy cuticle and sunken stomata.

pear, and the Pines are a branch of this family. They have persisted to the present day in many diverse climates because of their fitness to withstand adverse conditions. Their needle-like leaves are adapted to withstand strong winds, and they are also provided with a heavy cuticle (outer covering of the leaf) and sunken stomata (see Fig. 1), which renders them immune to the effects of dryness. Their branches being placed nearly at right angles with the trunk allows them to bend, and not break, under a load of snow.

To the lover of the woods there is something particularly attractive about a Pine forest, the open aisles, free from underbrush, the resinous odor, the gentle sighing of the wind through the branches.

The way in which our Pine forests have been devastated is one of the crying shames of civilization. Where the forest was cleared off to make room for prosperous farms this destruction was, of course, perfectly legitimate, though even in this case the clearing was often too wholesale, and many farmers to-day would find a piece of land with a good stand of Pine a better paying crop than any other. But where arid, rocky land was stripped of its best timber, burnt over and converted into a dreary waste, this destruction was nothing short of criminal. "Willful waste brings woeful want," and we see the want of good Pine lumber to-day. Only the pinch of high prices has forced upon us the idea of conservation, and conservation has not arrived one moment too soon. Lumbering has hitherto been a destructive industry, henceforth it must be a constructive one as well. Our forests have been treated as mines; they must now be treated as farms.

We have in Canada a good many species of Pines, and the following "key" will enable anyone to readily identify the different species:

KEY TO CANADIAN PINES.

- Eastern Species.
A. Leaves 5 in a bundle—White Pine (*Pinus strobus*).
AA. Leaves 2 to 3 in a bundle.

B. Cone scales unarmed.
C. Leaves 2½ to 6½ inches long—Red Pine (*P. resinosa*).

CC. Leaves ½ to 1½ inches long—Jack Pine (*P. banksiana*).

BB. Cone scales armed with a spine.
C. Leaves in 2's—Jack Pine (*P. banksiana*).

CC. Leaves in 3's—Pitch Pine (*P. rigida*).

Western Species.

A. Leaves 5 in a bundle.
B. Cones long-stemmed—Silver Pine (*P. monicola*).

BB. Cones short-stemmed.
C. Leaf bundles scattered—Lamber Pine (*P. flexilis*).

CC. Leaf bundles in crowded clusters—White-bark Pine (*P. albicaulis*).

AA. Leaves 2 or 3 in a bundle.
B. Leaves over 6 inches long—Yellow Pine (*P. ponderosa*).

BB. Leaves 1 to 3 inches long.
C. Leaves dark green, slender, tree 5 to 25 feet in height—Scrub Pine (*P. contorta*).

CC. Leaves yellow-green, broader, tree 80 to 120 feet in height—Lodge-pole Pine (*P. murrayana*).

CCC. Leaves gray-green, stout—Jack Pine (*P. banksiana*).

Good Rural Homes Keep Boys on the Farm.

Editor "The Farmer's Advocate":

Having good rural homes is the mainstay of our existence as a people. In the home begins the lives that make or destroy our social, moral, political and even physical perfection. Wrecks do not often come from well-ordered homes. A boy or girl who is well nourished, clothed and made comfortable at home by the happy, cheerful and sane philosophy that comes from a mother's love and a father's healthy protection, will rarely prove a burden on society or become an undesirable citizen.

The earth was created by a Power from on High. Nature has done her part, and to man has been given the duty, the right, the privilege of developing it. Tap the maple tree and by a process of evaporation we have maple syrup; plant an apple tree and by cultivation, in place of native fruit, we have the "Wealthy," the "Snow," and the "McIntosh"; sow the grain, and we reap the harvest tenfold. Development means, man to labor and men to think. We read of streets paved with gold, but few there be that find them. Trees do not grow into houses, cattle do not feed themselves, and it is useless to sow seed on barren fields.

Poetical language, silver-toned orators with beautiful landscape portraits and all kinds of theories, may seem very nice, but it is work that keeps the wheels moving. In banquet halls and from schoolhouse platforms, especially at Institute meetings, we listen to men with much experience, and more ancestral kid-glove theory, lecture on "How to keep the boys on the farm." An Irishman would answer in as many words, "Why, keep the girls there." Lectures and lecturers may be all very good, but the lecturer is often as a man, his father's son, putting the roof on his grandfather's building, and the lecture, however good, is only the finishing touch to the picture. The parents are the brush and paint, and the canvas is the boy and girl themselves.

To keep anyone anywhere there must be something to appreciate, and to make something on the farm worthy of appreciation is the secret of making farmers. The country favors high aims and lofty endeavors. Under the sunrise purity of her ozone-laden atmosphere and with the inspiration from the lives of neighbor-folk, the country is a heritage fit for kings.

But what do we find? Too many of our rural homes are nothing but pens. Houses that have no excuse for their erection, save that of a roof to protect from the elements. The need of heat, light and ventilation are subsidiary questions, and are often forgotten in the house planning. Many farm houses are uninviting to boys and girls. They have no rooms they can call their own—no place where they can design, scheme, plan and study—a defect indeed when we consider that our Shorthorns, our Yorkshires, our Plymouth Rocks, and our Berkshires, are attended to in every detail that will further their improvement. Surely boys and girls are of more value than cows and sheep.

To keep their children on the farm different parents have different ways. Some provide fine carriages, and the children soon graduate as city swells on a few dollars a week. Then there is the farm house across the road. Framed in red letters and hung on the wall is the proverb "Early to bed and early to rise, makes a man healthy, wealthy, and wise," and every morning, the whole household is up at break of day and working. And what is the reality? Homes which might be bright with music have none.

All the reading that comes in is the almanac. No songs to learn, no books to read, and what is there in life? Visitors may come, but what is the conversation? Hens, horses, cows, turkeys, cows, horses, until one wishes anything for a change.

Perhaps one will ask, is not this a higher moral standard than the cities? This may be true, but it is not the point. The standard is not to be "as good as," but it is to be the best. It is useless to ask anyone to endure the life some of our young men and women on farms are called to bear. Establish the home, place education within reach of all, create some enduring attraction, and the problem of keeping boys and girls on the farm will be easily solved.

Farmers in this Western country will one day hold the high position they do in the Old Country. Bankers may handle money and store it; tradesmen may handle goods and make a profit; but the man who creates a new dollar is the farmer.

In comparing the success of country and city boys in reaching high positions, the balance is with the country boys. Recent statistics compiled in the United States show that out of 25 presidents, 23 were country boys. Out of 45 governors, 41 came from rural districts. Of the cabinet ministers taken into the reckoning, some 126 in all, 111 were boys reared on farms.

It is interesting to read the opinion of J. J. Hill, of Great Northern fame, on the subject of country environment. He says:

"My present home is on a farm, and my principal reason for making my home there, rather than at some of the lakes or in the city, is that I have three boys of my own, I am trying to give a fair start in life. I believe there is no end of arguments that living on the farm gives the best chance for a growing boy. While my making the farm my home sometimes works an inconvenience to me, I realize that the benefits to my children are worth the inconvenience to me of getting in and out between my office and the farm."

There is no greater asset for any young man than an idea. Give him a vision of the great things that can be accomplished upon the farm, of the riches in soil regeneration, of the glories of animal production, and perfection, of the abiding interest that attaches to alfalfa and trees—all these visions are lying around him, like the chariots of old on a thousand hills. The eyes that could behold them would brighten, and the ideas streaming forth from the glorification would so enthuse the profession of agriculture to place farm life in the position it should be. There is no nobler life in the industrial world than that of the man who does things upon the farm. The home should be the feeding ground for these ideas.

Alta.

W. McD. TAIT.

THE HORSE.

Get a wide whiffletree made for the in-foal mare.

The demand for horses in Great Britain was never keener.

Drivers should remember that "whoa" means to stop, and train their horses accordingly.

Remember that a good gelding is likely to prove more profitable than an inferior stallion.

The English Shire, judging from illustrations of prize-winners in this issue, still carries plenty of hair.

Gradually increase the grain ration to the working animals until they are on full feed just as spring's work commences.

If the colts' feet have grown out have them properly trimmed. Bad conformation often results from neglect in this particular.

Let the in-foal mare do a share of the spring's work. Properly handled she will be the better of it, and so will the foal. Give her the double-tree advantage.

The breeder should read the enrolment certificate of the stallion he uses, but should not be blinded by it. Look over the horse. If he is not right do not use him.

Leave the colts in the paddock or farm yard as many hours each day as possible. The weather is now, for the most part, moderated to such a condition that the colts are better out than in.

It is not long until June. Is the paddock prepared for the stallion to take exercise, or how many miles a day is he led? A good breeding season depends more than many think upon the regular exercise of the sire.

If two or more in-foal mares are kept in the

same stable and one should abort, isolate her and thoroughly clean and disinfect. Whether or not the abortion is contagious it is dangerous, as the odor accompanying it often causes other mares to cast their foals.

Not for several years have the horse market conditions been such as to show so wide a difference between the big, heavy, sound, draft horse and the commoner, lighter, coarser-limbed type. Competition must eliminate the inferior animal, and it is plainer than ever before that only the best is to find ready sale at the most profitable prices.

The Foot.

That trite old axiom, so often heard, about the relative value of the foot to the horse will not steal into this short article. True, it is that a horse must have good feet, but they are only a part of a wonderfully developed anatomy which requires proportion, symmetry and quality in all its parts before the unit, known as a horse, is complete. Some breeds of horses have been so environed that quality of foot and limb was a prime requisite to their existence. Others have been bred for weight, and with it has come a corresponding decrease in that fine texture of bone, so desired by all horsemen. The result is there is no perfect breed of horses. The foot is not the foundation upon which to build a perfect breed, but if such a fantastical accomplishment is ever attained one may rest assured that the feet and limbs will be right.

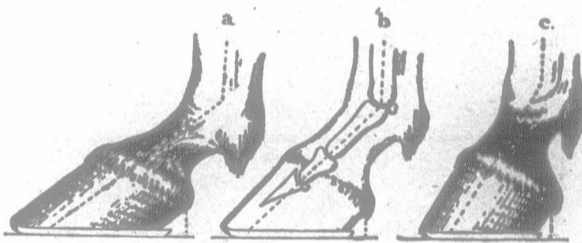


Fig. 1.—(a) Side view of an acute-angled fore foot; (b) Side view of a regular fore foot, showing a desirable obliquity, and (c) Side view of an upright or stumpy fore foot.

In figure 1 (b) may be seen the coffin bone, which is the lowest of the series of bones comprising the limb. Above it may be seen as well the coronary bone; the small cannon bone and the lower end of the cannon bone proper. Above and around the coffin bone are the sensitive laminae, which consist of thin plates of soft tissue. A knowledge of the presence of this tissue would dissipate the idea in many a horse-man's mind that hoof is one solid piece of horny matter, and by so doing elicit more intelligent care for that part of the horse's anatomy. In

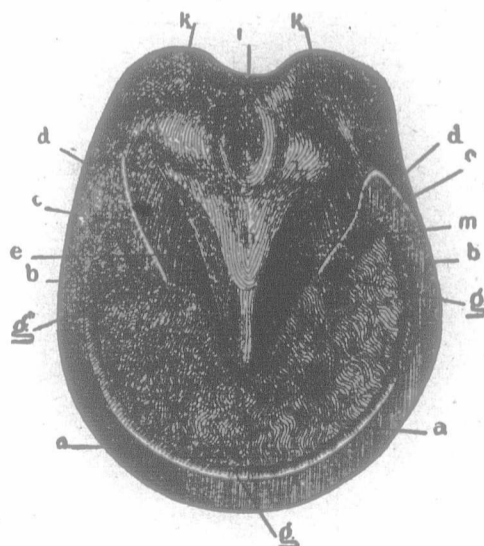


Fig. 2.—Ground surface of a right fore foot; a-b, the side walls; b-d, the quarters; c-c, the bars; d-d, the buttresses; e, lateral cleft of the frog; h, body of the frog; k-k, horny bulbs of the heels.

order to receive the downward pressure of the column of bones and destroy the shock, a thick pad of tissue, called the plantar cushion, is placed beneath the coffin bone connecting it with the sole of the foot. These tissues and bones with some cartilages make up the interior of the horny box known as the hoof.

Size, shape, quality and placement are the important points not to be forgotten in a judgment on the horse. The horn of the wall should be thick, hard and tough, and ebony-like in appearance. The quality of the hoof can usually be told by sight, but the color is not a safe criterion upon which to decide. Some claim the black hoof better; some the white, but most horsemen are agreed that a striped hoof is superior to any solid color. The surface should be free from wrinkles, ridges or cracks, but a hoof will often show concentric rings which should

never be marked or uneven. Viewed from the side the front wall of the front foot should form an angle of about 45 degrees with the ground, but the hind foot is a little deeper and stands at an angle of about 55 degrees. The whole foot should be round, and the heels wide and of good depth. In draft horses shallowness at the heels is too frequently a characteristic. The hind foot is meant for propulsion, while the front foot must withstand considerable concussion.

The sole should be slightly concave and the frog should be large, healthy and elastic, for upon it rests the responsibility of protecting the foot and limb from severe concussions. Avoid horses whose feet are small, brittle, flat in sole, shallow of heel, spongy and weak. They can never do good service, for they are defective in a very important part of the mechanism of the animal.

Army Remounts.

Thoroughbred sires are being distributed throughout the country for the purpose of rearing a type that will serve as a good saddle-horse for the remount demand. It is rumored also that Hackneys and Standard-breds are likewise to receive the approbation of the Dominion Government to promote this desired end, and there is a probability that some breeders might, in a moment of weakness, use a light sire in order to obtain one of these high-selling horses. It must be borne in mind that the heavy-draft horse does not possess the life and stamina required in order to qualify for the army, and, as a natural consequence, the heavy type of mare with the cart horse blood in her veins will not transmit the correct form and characteristics to an offspring. The result will be an undesirable, of little value for any purpose.

The blood of the Arab horse is, to more or less extent, present in all our breeds of horses, and the amount of it is a good criterion by which to judge the value or suitability of an animal for the saddle. The Thoroughbred, as produced in England, is of the race course type, and must be crossed with a little weight and substance to get an animal that will carry a man of 180 or 200 pounds. The Thoroughbred, of course, is the sire that should be used to get a remount, and he of all horses resembles most the Arab in saddle characteristics. France and Hungary lead in the right type of army horses, and there the Anglo-Normand, a dual-purpose animal, is in prominence. In Hungary particularly, the Arab, Thoroughbred and Hackney have been combined into a satisfactory saddle-horse, but the Anglo-Normand is still in evidence. The Hackney is not, properly speaking, a saddle-horse, but some infusion of this blood has brought good results both in riders and drivers. Bellfounder, the sire of the Charles Kent Mare and grandsire of Hambletonian 10, was numbered 55 in volume 1 of the English Hackney Stud Book, and to him is given much of the credit for the speed of the Hambletonians. In the days of Bellfounder, however, speed was an important feature, but in the time which has intervened some of it has been replaced by action of a different nature. Whatever the development of the Hackney has been throughout these years, they are still capable of imparting valuable blood to the army remount horse.

The saddler is not necessarily a pure-bred horse capable of imparting valuable blood to the army but a Thoroughbred stallion crossed with our ordinary farm horse of the cart-horse type will not give a remount of value, and if they are not valuable they are a particularly useless piece of property. What is required is the general-purpose stamp of mare not unknown to Standard-bred and Hackney blood. She, crossed with a Thoroughbred of the right kind, should produce a saddle-horse fit for service.

The colt which is to do his first hard work during the forthcoming seeding period should be given a little extra consideration. There is always a good deal of work at this season just previous to the opening up of spring, and it would be advisable to place the colt or colts at light work each day, keeping them accustomed to the harness and also keeping them exercised and gradually working them up to such a condition that they will stand the more strenuous work of cultivating the soil. The first day or two on the land they should not be rushed, in fact none of the horses should be pushed to their capacity, until after a few days of lighter work have been given. Very often the spring opens up warm, and the horses, with their thick coats not shed, suffer greatly from the exertion to which they are not accustomed. We have known of good work horses being injured to such an extent by early spring over-work that their efficiency was reduced for some time afterwards, and in some cases we have heard of death resulting from this cause. Colts are more likely to be injured than the old horses, and, therefore, should be given the lighter end of the work. Give them the easy end of the whiffletree, and rest them frequently and for short intervals.

LIVE STOCK.

Warm pens are necessary for the yearling ewes.

The pigs will enjoy access to an open yard these sunny afternoons.

This is the season when the good shepherd makes frequent trips to the sheepfold.

The success of the lamb crop depends largely upon the attention of the shepherd.

There does not seem to be much danger of the hog market becoming glutted in the near future.

What are you planning to do with your spring crop of calves? Are they not too valuable to be slaughtered for veal?

Keep the ewe and her newly-born lamb separate from other sheep for a few days. Especially is this necessary with young ewes.

Too much bedding in the pen of the sow about to farrow is worse than not enough. A small supply of chaff is all that is necessary.

Plant some pasture or soiling crop for the spring litter. The greatest source of extra profit in spring litters over fall litters is in the opportunity for free range and the use of green feed.

If you are offered a few good stockers or feeders at what looks to be a reasonable price do not hesitate to buy them. It will likely prove more profitable than if the transaction were deferred until next October or November.

Canadian Guernsey Breeders Meet.

At the annual meeting of the Canadian Guernsey Breeders' Association, held recently at Amherst, N. S., the President, D. G. MacKay, Pictou, N. S., spoke very optimistically regarding the development of the breed in Canada. Although the workings of the Association are at the present time limited to the Maritime Provinces, efforts are being put forth to combine the breeders throughout Canada into this one Association for the advancement of the Guernsey breed. There are four large breeders in British Columbia and others in the different provinces of the Dominion who register their stock in the American Guernsey Cattle Club books. These, the President said, should be brought to record in the Canadian books, that they might exert more influence to further their favorite breed in Canada.

Like all other Presidents of all other breeds Mr. MacKay referred to the heroes and heroines of the Guernsey blood, and directed attention to the fact that the four-year-old record for all breeds is held by a Guernsey cow, which in that period gave no less than twenty-six tons of milk, and almost one and one-half tons butter fat. Besides that, at the only contest ever held in America, where all dairy breeds were represented, the Guernsey headed the list in the three following points: First, most net profit per pound of food consumed. Second, the highest average score for quality in the butter. Third, the highest score for quality and color in butter.

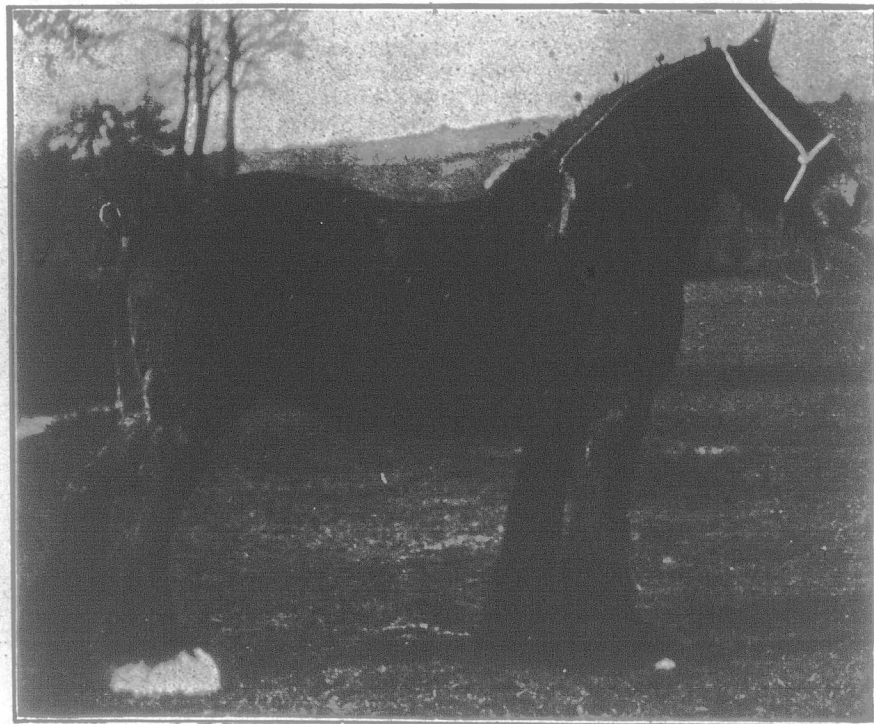
The report of the Secretary shows an increase in registrations amounting to ninety over last year, making in all 723 animals recorded in the Canadian books. The matter of bulls running at large was discussed, and the resolution, as adopted by the breeders assembled at Toronto during the first week of February, was approved with one or two exceptions where amendments were made. The resolution will be forwarded to all the Provincial Governments in Canada.

The following officers were elected for the ensuing year: President, D. G. MacKay, Heath Bell, N. S.; Vice-President, Hugh A. Dickson, Central Onslow, N. S.; Directors, E. J. Johnston, T. D. Bates; James F. Roper; J. Frank Roach; R. M. Jackson; Auditor, R. Robertson, Amherst, N. S.; Committee "A", D. G. MacKay and H. W. Corning; Director to act with President, Vice-President and Secretary on Executive Board, E. J. Johnston; Secretary-Treasurer, Howard W. Corning, Chegoggin, N. S.

Determining Inferior Milking Qualities of Ewes.

Editor "The Farmer's Advocate":

In every flock of ewes individuals can be found that possess marked ability to convert food into nourishment for their young, while there are striking evidences of ewes obtaining the same care and feed that do not properly nourish their offspring. Owing to this variance in the milking qualities of sheep it becomes of great moment in the breeding up of a flock to direct attention



Lorna Doone.

Champion mare at the Shire show recently held in England.

not only to type and conformation and quality of wool produced, but to see that each individual possesses the ability to consume a liberal amount of food and to convert a necessary portion into nourishment for supplying material for bone and flesh development for the progeny during the time it is dependent upon its mother.

No period offers such excellent opportunities to determine the inferior milking qualities of ewes as when the lambs are obtaining all their nourishment from their mothers. The thrift and vigor of lambs largely speak for the milking qualities of their dams. Some things, however,

on my own farm I am fully convinced that the milking qualities of ewes are quite largely influenced by the care the animals receive when lambing the first time. When yearling ewes are allowed to run with older sheep there is danger of their getting crowded away from the feed trough and not receiving the amount of food they require to supply the heavy drain upon their systems. I make it a practice to separate my yearling ewes from the rest of the flock, and give them additional care during the period of pregnancy and while suckling their young. If young ewes are allowed to become greatly reduced in

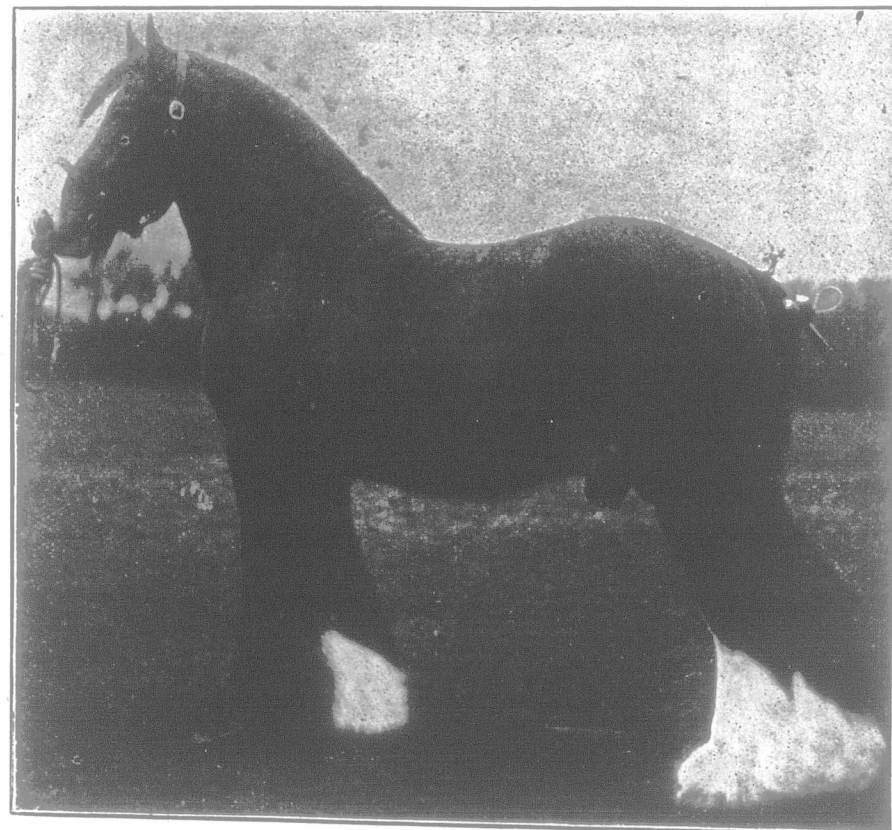
flesh during the first season of suckling their offspring, their entire milking system becomes trained to a certain producing capacity that is almost sure to determine their milking qualities later in life.

Flock owners should not act hastily in culling out their inferior milking ewes, especially the yearlings. As a general rule the milking capacity of a ewe can be quite accurately estimated when she is two years old, or while rearing her second lamb. milking qualities in sheep are characteristics transmitted from one generation to another. It is, therefore, important that special attention at this time be directed to determining the milking qualities in ewes that one intends to reserve ewe lambs from to replenish his flock.

It is not best to save ewe lambs from ewes that are inferior milk producers, as their progeny is very likely to inherit their weak qualities and perpetuate the fault in the flock. While the ewes are nursing their lambs close attention should be paid to the thrift and vigor of each lamb. Ewes that do not appear to be suckling healthy, robust lambs, should be marked, and later in the fall culled out along with their lambs. Last season I disposed of nine ewes rearing their second lambs, because they did not respond to the care and feed I was giving them. I have three more in my flock spotted, and unless they produce better lambs this season than last they will have to go next fall.

I will mention some very common causes that may bring in inferior milking qualities in ewes. In the first place, the feeding of an excessive quantity of carbohydrates during the time the ewes are carrying their lambs frequently causes a stoppage of the milk flow immediately following parturition. Garget very frequently attacks ewes, and consists of inflammation of the udder and milk glands. Ewes that are heavy milk producers suffer most, and it is very common that the milk flow becomes materially reduced. It is very seldom that ewes that are attacked by inflammation of the udder fully recover normal condition without the best of care and feeding. Inferior milking qualities may be a direct outcome of insufficient nourishment during the period of pregnancy. If any female, when making preparations to bring forth young, does not receive the proper kind of food in sufficient quantity to not only nourish her entire body properly, but also to

rightly develop the young she is carrying, a weak link will become manifest either in the progeny at birth or in her milk system later on. Poor milking qualities may be directly traced to some slight injury of the milk glands during the weaning period. Some farmers when they wean their lambs simply separate the lambs from the dams, and never give any attention to the udders of the



Monnow Drayman.

First-prize Shire stallion, London, Eng., 1914.

should not be lost sight of in estimating the good and bad qualities of ewes, as not infrequently the trouble may be directly caused by improper care. Those who have given their ewes good care during the period of pregnancy have good reason to believe that inferior milking qualities may be due to some other cause than the care which they have received.

After many years of handling sheep of all ages

ewes. This is where numerous instances of inferior milking qualities begin. Any one of the above causes may result in the ewes producing little milk, and it behooves every owner to give his flock the best possible care at all times.

No matter whether one is breeding pure-bred or grade sheep, he will find it of much importance to devote considerable attention to determining the milking qualities of his ewes during the time the lambs are depending upon their mothers for their entire food supply. He may rest assured that he has plenty of room for improvement, no matter how well or how long he has been directing attention to the improvement of his flock along this particular line.

Johnson Co., Ill. W. H. UNDERWOOD.

Are Your Calves Neglected?

It is surprising how little attention some farmers give their young stock. Especially is this true of calves. It is the common practice in a good many districts to fill the stables with larger cattle and other classes of stock, and crowd the calves into small, dark, dismal, dirty corners, where the sun seldom enters, and where the best of health and growth is impossible. Too many people think that any old place does for the calves, forgetting that the youngsters are the future herd, or if not must be grown and matured as rapidly as possible, and at the smallest cost in order to make a reasonable profit on them. In many of the old-fashioned stone stables with about one-tenth the light which they should have, one wonders at finding the calves in the darkest stall at the end or tied perhaps in a corner behind the cows and receiving the smallest amount of attention of any of the cattle in the herd, when to do them justice they should have the lightest stalls in the stable, preferably large box stalls, be fed on the best feed and their portion of the stable kept even cleaner than that of the older cattle.

The spring days are almost here when the calves would be much the better of a daily run in the farm yard. We do not favor the close housing of young stock, especially when the weather is such that they do not suffer from the cold or storm out of doors. Let them out for two or three hours during the middle of the day, and see how well they will enjoy a romp in the well-bedded farm yard or around the remnant of the straw stack. It is not well to let the calves, accustomed to close housing during the winter, get chilled, but if judgment is used there is very little danger of this. Start them on a warm day and leave them out a short time at first, gradually increasing the length of the play hour until practically half a day at a time is reached.

Making the Calf Hornless.

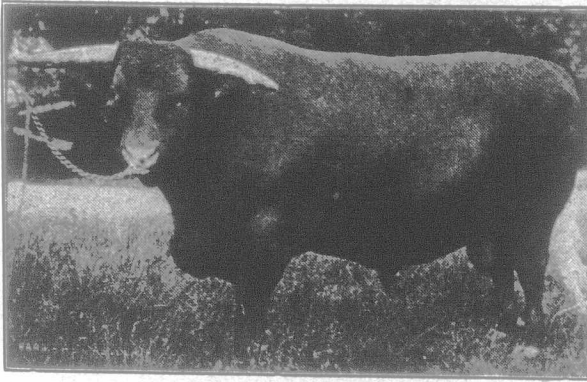
In another column in this issue there appears a short article from the Toronto Union Stock Yards management on the subject of dehorning cattle. It will be remembered by readers of "The Farmer's Advocate" that some two years ago dealers on the Toronto market made a rule, which was to come in force April 1st, 1914, that all horned cattle appearing on the Toronto market would be docked \$2.00 per head. It would seem from this article that the dealers are likely to make some change in the regulation. They are now asking that the tips of the horns of all cattle be sawed off before shipping. Whether or not the rule, as formerly laid down, comes into effect the fact remains that where cattle are bred and raised for beefing purposes or even for dairy purposes and not for sale as fancy stock, they are better with the horns removed.

The proper time to treat the horns is when the calf is very young. It requires little time, causes no pain to the animal, and no setback to do it at this time. Get a stick of caustic potash from the druggist. Keep it in a stoppered bottle or jar, and when applying wrap the end of it carefully so that none of it is smeared on the hands. The best time to apply the caustic is when the calf is from four to nine days of age, but it will do the work up to three weeks of age. However, we would advise attending to the matter the first week of the calf's life. Clip the hair off around the scurs and moisten one end of the caustic pencil and apply it to the scur until it turns white. Be careful not to allow any of the dissolving caustic to run down the calf's face or to come in contact with the skin around the scur. It will burn and leave an ugly sore, but if properly applied the calf does not suffer from it, and it does no harm whatever. Remember do not put treatment off until the calf is a few months of age and then condemn the caustic as being no good. It only takes a minute or two and is much more easily accomplished when the calf is four days old than when two or three weeks old. It will save a good deal of hooking and bruising of the animals to have them all dehorned. Right now when so many of the cows are freshening and calves are numerous is the time to commence this operation if it has never been done before.

The Sussex as a Breed.

The Sussex is a breed of cattle, native to the southern counties of England, which has never become universally popular in America nor even gained anything like what might be called a foothold in Canada. In 1891 a few head were imported to the Agricultural College at Guelph, but since that time they have discarded them, and very seldom do any of their progeny come up at livestock shows or exhibitions.

As a breed they are noted for their beefy conformation and inferior ability for producing milk. In 1885 at the American Fat Stock Show a year-



A Successful Sussex Sire.

ling Sussex steer received the class prize on the butcher's block, and came within one vote of winning sweepstakes. They are very good grazers, and in this respect are comparable to the Hereford. Their early maturing value has been emphasized by some, but it is doubtful if they are as good in this respect as the aforementioned breed. The Sussex is associated with the Devon and Hereford in history, tracing back several centuries. They were formerly bred for draft purposes, and used to till the soil.

A Record Board.

Editor "The Farmer's Advocate":

There is no doubt about it but that it pays to keep farm records. I was amazed this winter to find out how few attended to this matter in any satisfactory manner whatsoever. We were having a discussion regarding the profit to be had from feeding cattle for the market, and I was persuaded that I should have no difficulty in ascertaining what my neighbors were doing in this particular. To my great surprise a very small per cent. of them could give me even a relative estimate of their profit. They knew what their bullocks cost them, but the amount of feed supplied was an unknown quantity. "Really, I do not know what amount I feed them, but I know it takes a lot." And so the replies



A Poland China Sow.

ran. In the matter of feeding hogs it was little better. The same was true of a very large percentage of those engaged in the milk business. Here is a method which, though it is not absolutely exact, has proven a fair guide: Keep tab on the oats placed in the feed box for the horses. This is an easy affair when the oats are rolled—as I have found best for the horses. The miller will always let one know the amount rolled. When the oats are fed whole a little measuring will do at the beginning of the season. After that it is simply a matter of marking up on a board or a shingle, convenient to the bin, that may be taken to the house for entry in a book. The general or total cost of feeding a herd will be kept in the same way. The meal can readily be kept tab on. For the roots and silage it is a practical method to weigh, place in a feed box and to note the height of the feed in the box. After this it is but a small thing to estimate quite accurately what is fed in the aggregate. If records are desired of individuals the same

method will apply. When it comes to working a field the same attention to detail will prove an eyeopener to many a man.

This is one of the ways in which a farmer can estimate relative values of crops. Labor and time are gold to the farmer, and unless he can account not only for the hours but for the minutes he is a far bigger loser than he knows. Further, unless he drives his efforts to the productive point he is falling out of the race. Every farmer should have and he may have figures that show why he gives his time and effort to raising the commodities of his farm. Merchants and manufacturers all over the country tell us that they never commenced to win till they made each department of their business rest on its own feet, and eliminated all the parts of their industry that were not paying their way. And what are farmers but manufacturers and merchants? Why should they not effect a thorough search for the waste that is keeping them back and making their burdens extraordinarily heavy? The task is not so difficult as many farmers think. Referring again to the discussion in regard to the profit of feeding grain to dairy cows I induced a neighbor to keep tab for a couple of months. The other day he smiled as he met me. "Say," he remarked, "I have those figures." "Well?" I queried. "Guess I'll make a sale or two. I never thought there was the difference. Thanks for the hint." That neighbor has found out where some of his profits have been going. This man's experience has been repeated over and over again to my knowledge.

I mention the board as a good record bearer rather than a book, because it may be tacked up in sight and so serve as a reminder and because it is not readily lost. Ten minutes a day will serve to keep all farm records, and a very short time at the end of the month will be sufficient to make clear where the profits are coming from or going to. The result will be a disappearance of the old hit-and-miss way of doing things that served to keep the farmer so hopelessly in the dark.

York Co., Ont.

W. D.

Great Interest in Purebreds.

Possibly never before in the history of this country was so much interest shown in the breeding of pure-bred live stock. This is particularly true at the present time of the cattle of both beef and dairy breeds. As an indication of the value which breeders, deep in the game of pure-bred stock breeding and those just commencing the business places on them, one only needs to point to the high prices and keen bidding which prevail at the sales of pure-bred live stock this spring. Sales are numerous, but their numbers do not seem to be keeping the prices of good stock down. Western Canada is waking up to the fact that she must go into mixed farming, and mixed farming means the keeping of large numbers of live stock.

Eastern Canada, already engaged in mixed farming, is seeking to strengthen her position, and realizes full well that the only means of doing so is by using the very best blood of the different live-stock breeds available. Breeders from the East and West gather in large numbers at each pure-bred live-stock sale of any magnitude, and consequently prices run high. While many sales are being held they cannot be taken as an indication that we have an over-supply of pure-bred stock, even in the most thickly-settled districts of the old Province of Ontario.

There is a keen demand, and breeders are taking advantage of this to disperse their good stock amongst a number of the smaller breeders, and ultimately do a great good to the stock-breeding industry of the country. One cannot estimate the stimulus a district receives when a member of the community goes out and buys a good sire for use on his own herd and those of his neighbors who see fit to patronize him. Even though he only buys one or two females, the very fact that these are to be seen in his herd encourages his neighbors to get some good stock for their herds. The season of highest prices is not always the best time to buy. A man in search of the best individuals with the blue blood behind them must pay a good figure at any season. Present indications point clearly to the fact that now is a good time to keep the best stock already in the herd, and put forth the most strenuous endeavors to improve that stock by breeding to the best sires available.

FARM.

Farm Engineering.

KEROSENE AS AN ENGINE FUEL.

The use of kerosene in place of gasoline as an engine fuel appeals to almost every farmer, because of the great saving in cost of operation. More and more the kerosene engine is crowding the gasoline engine as a farm motive power. The price of kerosene, in all probability, will ever be lower than gasoline, for there are produced at least three gallons of kerosene for each single gallon of gasoline. This proportion must be kept because the two oils are not produced independently, but the kerosene must be produced incidentally in the manufacture or refining of gasoline. Kerosene is a heavier distillate. It is harder to vaporize at ordinary temperatures, and it is extremely difficult to burn the kerosene completely. If not completely burned, a heavy deposit of carbon or soot remains.

Because of these difficulties, which do not arise with the lighter oils, such as gasoline, the commercial form of kerosene differs considerably from the common gasoline type. The greatest difference is in the carburetor. These, of course, differ among themselves, but the essential things are that there shall be some way of heating the kerosene, heating the mixture before admission, and preventing premature combustion. Generally the exhaust gases are utilized for heating purposes, although it is possible to use the cooling water from the cylinder jackets instead. To heat the mixture either the air inlet is connected to a chamber surrounding the exhaust pipe, or a part of the exhaust gases are deflected and led through a jacket which surrounds a portion of the inlet pipe between the carburetor and the cylinder. The size of the kerosene evaporating surface is made larger than the corresponding surface in a gasoline carburetor. Premature combustion is prevented by injecting a small amount of water spray into the cylinder with each charge. The admission of water also insures better combustion and a smaller consumption of fuel.

Almost any gasoline engine can be operated on kerosene as a fuel if first started on gasoline. The results are not satisfactory, but where the difference in price is great the operator can afford to go to a little extra trouble in order to effect the possible saving. The engine, after being started in the usual way, is allowed to warm up for a few minutes. Then the kerosene supply pipe is opened into the carburetor and the gasoline pipe closed. This is accomplished by the use of a two-way valve which switches the carburetor pipe from one of the supplies to the other. A further convenient change is to place the air intake opening of the carburetor close to the exhaust pipe so that the entering air may be heated and heat up the mixture. If this cannot be done, surround a portion of the exhaust pipe with a jacket and connect the latter to the carburetor air intake. Even with the best of arrangements, there is bound to be more trouble with the formation of carbon deposits on the inside of the cylinder and on the spark plugs. The result of the continuance of such deposits is known to every engine user. Spontaneous ignition, loss of compression, loss of power and undue straining of the machinery are the main results.

Denatured alcohol, properly used, is an extremely efficient carbon remover. With the valves closed and the piston at the end of the compression stroke, the compression space should be filled with the denatured alcohol, and left all night. Then crank the engine by hand a few times and start in the usual way on gasoline. The exhaust will be seen to be very black and will be found to contain much of the carbon deposit. The best results are noticed if the alcohol is introduced into the cylinder as above while the cylinder is still hot from running. In order to prevent the formation of deposits, a small amount of denatured alcohol may be introduced into the cylinder every two or three days.

Kerosene contains more heat energy per gallon than gasoline, but it is not so efficient. It does not burn so completely, and more of the heat is lost in the exhaust and in the cooling water. The result is that a gallon of gasoline used in a gasoline engine will give more power than a gallon of kerosene, the length of time during which the engine runs being the same in both cases. That is, the consumption of kerosene in gallons will be greater than the consumption of gasoline for a day's work. The actual difference depends upon the particular engine but, in general, the consumption of kerosene will be one-third greater. Hence, to effect any saving in the use of kerosene, the price of the latter must be less than two-thirds the price of gasoline.

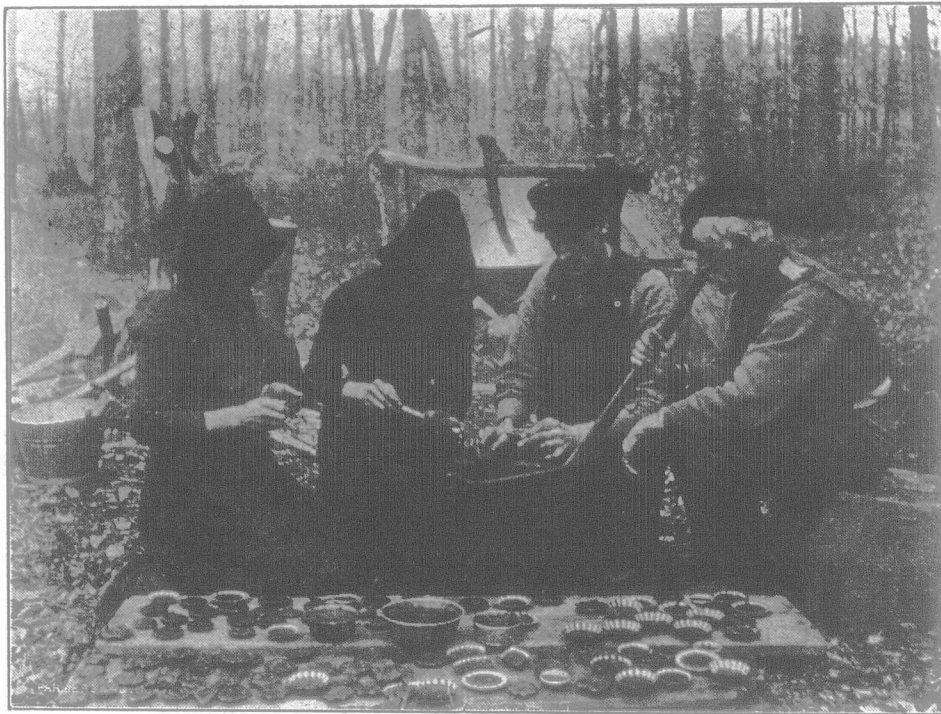
Nova Scotia.

R. P. CLARKSON.

Preparing Seed Bed for Potatoes.

Editor "The Farmer's Advocate":

Here is the method of preparing the seed bed for potatoes that an East Flamboro farmer has followed with success for many years: The dairy herd is kept in the stables over night during the summer months, in this way providing about forty spreader loads of manure. As soon as the clover is cut this manure is spread over the clover stubble and allowed to leach into the soil. The clover roots grow quite rank, and a fine after crop of clover hay is produced. After harvest the clover is plowed down to a depth of six or seven inches. Frost and winter do their work, with the result that when spring comes the ground is rich and mellow. This seed bed is carefully disked and harrowed, and re-disked and plowed at least as deep as it was plowed in the fall, and then disked and harrowed again. The aim is to germinate all weed seeds and to kill them as soon as they germinate, and before they have taken any nutriment from the soil. Half a day thus spent in the spring with a three or four-horse cultivator is more effective than a day spent later in the summer. Further, when the potatoes are growing, anything like deep cultivation destroys a great many of the potato rootlets. The object of manuring on the sod is to keep the fertility of the manure near the surface. The aim of the deep plowing in the fall is to turn the soil with the roots up to the surface where the sun and winter will rapidly produce a large quantity of humus. The aim in the deep cultivation in the spring is to have a deep, mellow seed bed, in which the potatoes may grow freely. Unless the potato may grow freely it is likely to crowd to the top of the ground and to



"Sugaring Off."

The call of the sugar bush is irresistible at this time of year.

become "sunburned" and so to depreciate in value. The potatoes once planted, they are run over once a week with a weeder. The result of this method of preparing the seed bed has been a clean field, and at least a fair crop of potatoes almost any season and a bumper crop when the season proved good.

York Co., Ont.

J. J.

A Scarecrow.

Editor "The Farmer's Advocate":

I saw an article in "The Advocate" of February 12th on crows and their destructiveness on corn, and thought that perhaps my little experience might help someone else to solve the problem. While sowing my corn near the bush and at the same time thinking out a scheme to ward off the crows, an idea came to me, and this is what it was: Get a piece of bright tin a foot square, punch a hole in the centre with a four-inch spike, then slit the tin from all four corners in towards the centre. Now bend each alternate point in towards the centre to form the fans of a windmill and punch a hole in each point to correspond with the hole already in the centre. Take a piece of wood one and one-half inches square by two and one-half feet long for a crossbar, nail fans on each end with a four-inch spike, and a light board on the other end, for a vane, bore a hole in the bar so that the fans and vanes will balance over a stake driven in the ground, then drive a spike through hole in bar into ground stake, leaving enough play so that the mill will turn freely and your crow scare is complete. Do not oil, let it screech, the more noise the better. I could hear mine screeching half a mile away, and I never saw a crow in the field from the day I put mill into it.

Perth Co., Ont.

"SCARECROW."

Favors Shallow Cultivation.

Editor "The Farmer's Advocate":

Your request for suggestions from farmers along the line of preparing a seedbed for various crops, induces me to give you some of my experience in which theory and practice combined have shown reasonably good results, and which may be of help to some who are similarly situated, as regards nature of soil, weather conditions, etc. In the greater part of our province hard frost in the late autumn, winter and early spring is the rule. Also it is the rule among farmers to get as much ploughing as possible done in the fall. There are two good reasons for this. One is to prevent too great a rush of work in the spring, and the other is to allow the frost to mellow and loosen up the soil, at the same time breaking down the particles of mineral matter and thus creating food for the growing plant.

Now there are certain kinds of soil, usually those that have not been cropped for more than a short time, that respond very readily to this action of the frost, and this soil will be found, in the spring, to be very finely pulverized, and also very loose and open as soon as it becomes comparatively dry. The point I wish to make is that deep cultivation, such as that effected by the disc harrow, on such soil as this is worse than useless. In the first place the newly-created plant food is, in part at least, buried beyond the reach of the young plant, and subsequently leaching may cause its complete loss to that crop. In the next place soil is turned up from below that has not been subjected, to the same extent, to the action of the weather, and which is consequently hard and in poor condition for supplying the means of life and growth to the coming crop. It is not porous and will not retain moisture as will the looser soil, and prevents the natural spreading of the plant roots in search of food. Now in view of the above facts it would seem that a light cultivation, such as could be given by a stroke of the ordinary peg-tooth harrow, would be the most suitable in this case, and from my own experience I know that such a method brings good results. The harrow levels the ground leaving it in fine condition for the drill, and in half the time that the disc would take to do it. Of course, a field that can be treated in this way is the exception, and every man must use his own judgment as

to the individual requirements of his different fields. But I suggest the plan as having worked well with me, and likely to do the same with anyone else where conditions are right. I have seen so many tired-out horses dragging a heavy disc harrow across fields of loose and sometimes newly ploughed land, that for that reason if for no other I would suggest light cultivation where practicable. But the saving of labor for man and beast is not the important point. It is results we are after. And where land is clean and loose I don't think shallow spring cultivation will disappoint us. It is nature's method, and she raised good crops before she was interfered with.

Glengarry Co., Ont.

J. E. McINTOSH.

More Than One Use for the Pig Ring.

A writer in The Farmer's Advocate and Home Journal of Winnipeg, Man., outlines a few uses for the pig ring other than depriving pigs of their capacity to tear up sod or other kinds of soil. These are worth reading over and we reproduce them.

A rope halter shank with a knot at the end to keep the rope from unraveling is a nuisance in many ways. It is always awkward to handle, especially when you want to tie a horse to a post with an auger hole for the halter. Very few holes are large enough to let the knot through, and when you tie the rope round the post it works down, and if the horse is young and fretful it is likely to make him pull. When you buy a new halter shank make a hog ring, cut the rope so as to leave a clean, unraveled end. Set the pig ring tight around the end of the rope with the pig ringer, and you have a

farmers for various combined and which similarly other con- our pro-winter and the rule ughing as two good o great a other is to p the soil, particles of d for the

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e Pig

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at the end nuisance in to handle, horse to a ter. Very the knot round the e is young ull. When a hog ring, unraveled the end of you have a

shank that can be handled conveniently and that will not ravel. It is better than a rope end fixed with a waxed cord or with the ends woven into the web.

If you tie the other end of the shank into the halter ring it does not look well, and often draws so tight that it cannot be removed without cutting. Pass the end of the rope through the halter ring for about six inches. With a larger hog ring set tightly with the ringer you can fasten the end securely to the shank, then with another ring set close to the halter ring, and one between these two pig rings, you have a neat looking halter. If you wish to take the halter shank off, the rings can be cut away in a minute or two with the fence pliers without damage to the rope.

Another very useful item in the pig ring's utility is its use for marking hens. Few farmers go far enough with pedigree breeding to pay for aluminum leg bands, but any one who expects to make money out of hens ought to keep track of the age of each hen, and mark her after she has laid one year unless she has something of especial merit about her.

In the fall when the pullets are ready to be taken from the coops in which they have been raised, to the hen house for winter, put a pig ring around the right leg of each pullet, being careful to leave space enough for the leg to grow. Next fall put the rings on the left leg and when marketing time comes sell off those with rings on the right leg. If a hen has proved to be an exceptionally good sitter and mother, see that she gets another ring, so that she has one on each leg. If you have found that a hen is a better layer than the rest double mark her. A person who is about the hen house regularly, and is enough interested in hens to watch them closely, can soon learn to identify the eggs of any particular hen. No two hens lay eggs exactly alike.

Once having learned to identify a hen's eggs, the poultryman can keep her record closely enough for farm purposes without trap nests, as he will be interested only in a few which he finds are laying better than the others. These should be double banded. It pays to keep these exceptional layers and good mothers as long as they

are vigorous without value of the eggs they lay as they grow older, because of the improvement they make in the flock.

If you need a high piece of woven-wire fence and have two narrower pieces which together would be wide enough for your purpose you can fasten them nicely with pig rings by clamping the top wire of one piece to the bottom wire of the other piece, setting the wringer with the set screw to come as closely together as possible.

Just Dog.

By Peter McArthur.

When I asked for dog stories a few weeks ago, I fully intended returning to the subject at once, for I knew that I would get a lot of stories that would provoke good chats, around winter firesides. We cannot be improving our minds all the time and in hours of relaxation it would be better to talk about dogs, than neighbors. As I expected, a lot of dog stories were sent in, also stories about lambs, ducks, cows and other domestic creatures. And just then things began to happen to me. I had to go to Toronto, where I got stirred up about Indirect Benefits. Then the cold weather came on, and I had to migrate from my desk to a table near the stove, and in the change, the letters containing the stories got mixed up with my unanswered letters, and I haven't been able to locate all of them yet. However, I have found enough to provide a batch that should enable you to discover whether other people's dogs are smarter than yours. The subject may seem unimportant, but what of that? Most of the things that amuse us are unimportant, but the fact that we should be amused is one of the most important things in the world. If the "wisest men" referred to in the old proverb did not relish a little nonsense now and then, they never would have gained their reputation for wisdom. At the same time, if it were necessary to defend the theme it would not be impossible to justify dog stories by weighty argument. A French lady—evidently an early militant suffragette once said—"The more I know of men, the better I like dogs!" While the men folks are digesting that, let us proceed to the first story.

A doctor who gives his name and address as a guarantee of good faith, sent me the following:

"Three weeks after I located here, I was awakened by a great noise at my front door. Further investigation revealed a mere dog—a mongrel of the finest type. A good kick on the snout gave me another hour's rest, when I was again awakened by the same noise—cause ditto. This time he got hold of one leg of my pyjamas and pulled, never bruising my tender skin; so, remembering other dog tales, I let him pull. Seeing he was in earnest, I gave him another signal to desist and got dressed. At my exit, he was waiting and scooted ahead. With some misgivings, I aroused a neighbor, who said that he belonged to J. F., aged fifty-four, a bachelor who lived four miles south. Turning back, I hitched the yoke, at sight of which that dog's joy was unbounded. A short jaunt deposited me at J. F.'s., just in time to do business.

"Not much to all that, but hear the rest.

"J. F. is an epileptic, and prior to my location here, an old neighbor woman used to get up and come to attend him, whenever his dog scratched at her door.

"The day after I saw J. F., one of the old lady's neighbors sent for me (A Coroner), to determine the cause of her death, as she had been found dead that morning. Investigation revealed that she had been dead at least two days. The dog had evidently scratched her door unavailingly that night. Now then, granting that the dog had been trained to go to the neighbor-woman's for help, how on earth could he know of the location of a doctor four miles away, and as recently as three weeks since, and how could he know to which house he should go? It is entirely puzzling."

After you have exercised your ingenuity, trying to puzzle out the reason why of that story, you may profitably consider the following lot, which were sent by Mr. J.M., of Hamilton.

"One time I carried a pail of salt to give to fifty head of cattle in a small yard, some distance from home and went back part way home when I thought of the large tin pail, which was left behind. I said, 'Rover, bring that pail.' He had to go through the fifty cattle, to the far side of the yard, and bring the pail back through



Following in Mother's Footsteps. Where one sheep goes, the rest follow.

the cattle, and did so immediately without disturbing the cattle. Another time, I was spreading manure on a field in warm weather, and had left my vest with watch, in among some bushes somewhere at the end of the field, I was not sure where. I said to Rover, bring my vest, when I was going to dinner. He went right off and brought vest and watch out carefully from among the bushes. When sowing grass seed, sometimes I would leave an empty bag at the far end of the field when the ground was muddy. When I said, 'Rover bring that bag,' he brought it folded carefully in his mouth, and did not drag it in the mud.

"The late Colin Arthur, who was a butcher here, had a Collie named 'Lassie'. When he would be many miles back in the country buying cattle, and wanted to stay and buy more, he would send what he had bought home with 'Lassie' alone. A number of the old folks, around here can verify this.

"The women folks here, trained my dog 'Rover' to put the geese in a small wooden house at night, and also to open the door and let them out in the morning. I told one of my nephews about it, and he said he would rather see it than believe it. The geese were in and the door was laid up against the hole. I had not asked the dog to bring them out before, but just said without pointing to the house. 'Rover, bring the geese out.' He immediately pulled down the door, jumped to one side and let them come out. Another nephew wanted to see the dog let them out another time. A drain tile was propped firmly against the door. Rover tried to pull the door down, but it did not come. Then he tried to pull out the drain tile, but it was too firm. After that, he jumped on top of the house, and pulled a board off the roof, with his mouth. I regret to say that two fat healthy looking dogs were found dead one morning, probably poisoned, and one of them was 'Rover.'

These stories are all marvellous, and point to considerable reasoning power and intelligence on the part of the dog, and yet none of them surpass some of the thoroughly authenticated stories given by Romanes in his book on the subject. One correspondent, however, sent me a clipping from an English paper, which as they say over there, "is a bit too thick!" Here it is:—

"The writer had a fox terrier, that always when the postman came, fetched the letters and papers from the door-mat. On one occasion, when there were two letters delivered, he brought in one, but absolutely refused to bring in the other, a thing he had never been known to do before. After much coaxing and scolding, he still refused, so I fetched the other myself. It was the notification that the dog tax was due." This is a fact. (C.E.T. Cricklewood, England).

As the man who vouches for that story is an unknown person, living on the other side of the ocean, I have no hesitation in suggesting that the explanation of the mystery is the same as the answer to a famous riddle. After everyone had been baffled by the riddle, the answer was that "The boy lied."

At some later time when important matters are not pressing, I shall deal with some of the other animal stories I have received. In the meantime, I wish to thank my correspondents for the courtesy they have shown in sending these stories.

The Farmer's Favorite Friend.

The United States Department of Agriculture, recently undertook the task of discovering which of the several agencies operating to help the farmer was most effective and most appreciated. An investigation carried on in four sections of the country, proved that the agricultural press is of all the operating agencies, the most appreciated and most effective. In all 3698 farmers were visited and of these, 6.3 per cent. preferred the bulletins issued by the Agricultural Department, 3.6 per cent. favored the Farmer's Institutes, 6 per cent. the agricultural demonstration agents, 4.5 per cent. thought all agencies were of equal value, while 40.3 per cent. pinned their faith to the agricultural papers. It is seen by this that the agricultural press is exerting a wider influence for the good of agriculture than is generally believed.

One surprising feature of the investigation was that 43.7 per cent. of the people visited, stated that experience was the only valuable teacher and that none of the agencies enumerated was of any benefit to them. We wonder just how many of these people take any farm paper, or read any of the bulletins sent to them, or still further make an effort to attend Farmer's Institute meetings.

It is gratifying to know that the agricultural press so dominates American agriculture. Two out of every three of the farmers visited take one or more farm papers, and 44 per cent. of them take two or more agricultural papers. The number receiving farm papers was 51 per cent.

greater than the number who received bulletins, and 119 per cent. greater than the number who attended the Farmer's Institutes.

From the bulletin giving details of the information, we quote the following: "The noteworthy matters are the large numbers who placed the farm papers first, and the still larger number who placed no value whatever upon any of the agencies. As a matter of fact, however, the man who neither receives the bulletins, takes a farm paper, nor attends the Farmer's Institutes is not in a position to judge of the value of such agencies. Many of the 1616 farmers, who denied the worth of these agencies fall within this class. Some, however, attended the Institutes, took farm papers and received the bulletins and still said they were not helped in their farming by any of these agencies. This large percentage, however, shows a marked conservatism towards agricultural extension agencies, and undoubtedly indicates the cause of the reluctance of farmers in some sections, to support in any marked degree the present country-wide movement, looking to the location of trained agriculturists in counties, to advise with farmers in the improvement of their agriculture, a movement strongly supported everywhere by both business and commercial interests.

"In order that there may be a fair comparison as to the merits of the different agencies it is essential that the one making a comparison be in touch with each agency compared. There were 469 farmers who not only received the bulletins but also attended farmers institutes and took farm papers, thus being acquainted with all three agencies. Of this number 21% give the bulletins first choice, in the list of most beneficial agencies, 14% placed the Institute first, while the remainder or 65% give first place to the farm paper. This comparison indicates that with farmers who are competent to judge, those who prefer the newspapers are three times as numer-

tion list; subscribers must be readers and must act upon some of the things they read.

The men not now receiving help from any of the agencies mentioned in this investigation must be in just as great need of bulletins, agricultural papers, Farmers' Institutes, and the help of the District Representative as are some of those acknowledging the benefit of these agencies. These men must be reached, but the paper cannot do them good unless they subscribe and read what it contains. Few there are who, after getting benefit from sources other than practical farm experience, would be so conservative or bigoted as not to give the various acting agencies credit.

In each department of the investigation the popularity of the agricultural press was evident. There is a great field for this agency, and with the co-operation of the farmers generally the work can be made of far greater benefit than it has as yet attained. Readers should make their farm paper a medium through which to obtain and disseminate results of practical experience in the various branches of their diversified calling.

THE DAIRY.

To Improve Western Ontario Creamery Butter.

Editor "The Farmer's Advocate":

In two previous articles we have dealt with the need for ice on the farm for cooling cream in order to keep it sweet; and also with the need of extra payment for cream delivered of good quality, suggesting that grade A cream should be paid for at the rate of at least one cent a pound fat extra as compared with second grade cream.

In this article we purpose touching on a few other points necessary in order to improve the quality of Western Ontario creamery butter. Assuming that the creamery is properly built, has good machinery, good drainage, plenty of pure water, and has a competent maker in charge, what more can be done? Our answer is, chiefly pasteurization of cream which is a great need. But a very small proportion of our creameries pasteurize, but those who do are turning out a product of uniformly good quality, and they are obtaining, so we understand, a higher average price for their butter, than do those creameries where pasteurization is not followed.

As we were the first, as far as we know, to adopt this system in Ontario, we have always taken a lively interest in the question. Since 1895 the Dairy Department of the Ontario Agricultural College has persistently taught, and consistently practised the pasteurization of all milk or cream which is manufactured into butter. We started first by heating the cream in shot-gun cans, which were set in a tank of hot water, stirring by hand until a temperature of 168 degrees was reached, then the cans of cream were removed from the hot-water tank, covered, allowed to stand for about fifteen minutes, then set in a tank of cold water, and stirred until cooled to about 70 degrees, when they were emptied into a cream vat, culture or "starter" was added, and the cream ripened. We found a very marked improvement in the quality of our butter at once, as a result of this plan, and we have followed it in some form ever since '95. The only objection to the can system is the extra labor. So far as results are concerned, there is nothing better than the heating and cooling in small cans holding about three gallons each. The quality of butter produced is equal to that obtained with a \$500 pasteurizing outfit, but the can system is not applicable to creamery work where large quantities of cream are handled. Since the can method we have tried nearly every form of pasteurizer placed on the market, from the "Channel Heater" to the continuous or "flash" machine. We now have two types of the "holder" pasteurizer and cream vat, which is the very latest thing for creamery work, and we have no hesitation in recommending these to creamerymen. Owing to the high price of these machines a number of creamery owners are hesi-



In the Canadian West.

The farm driver is not often called upon for tea milk.

ous as those who prefer the bulletins, and practically five times as many as those who placed the Farmers' Institutes first."

The strong points in favor of the farm paper are: That it comes regularly and often, comes directly to the farmer, treats in each issue a variety of agricultural subjects, contains all the essential information forwarded in bulletins or delivered at Institute meetings, treated concisely and written in a language that farmers can understand. It never becomes stale, is always new and is readable and accurate. Agricultural research institutes are, therefore, asked to make more systematic use of the agricultural press in an endeavor to efficiently reach the farmer.

We do not know what an investigation of this kind would show in the various rural districts of Canada, but we do believe that these results would be substantiated. Farmers in Canada are not a great deal different from farmers in the United States, and they prefer to get the information to help them with their agricultural work from a regular visitor like the farm paper which carries the material to them in a readable form which they can understand and apply to their own conditions. The significant point is that such a large number give no credit whatever to anything except practical experience. While it is a source of satisfaction to note that so many appreciate the work being done by the press, these figures serve to bring out the point that large numbers of the farming community do not take or do not read farm papers. In order to accomplish the work which it sets out to do the paper must get a large and wide-spread subscrip-

tating about investing, and we are being asked nearly every week for our experience with these machines. A few minor improvements may be made in them, but they seem to be about the best word for city milk or cream trade, or for the manufacture of finest creamery butter. It is likely that when they come into more general use the price will be lowered, but to those who wish to improve the quality of their butter at the least cost for labor, heating and cooling, these latest type of pasteurizers look good.

However, to get the best results from any system of pasteurization the cream should be delivered in a sweet condition, or nearly so, otherwise the tendency is far too great a loss of fat in the buttermilk, caused by coagulation of the curdy matters enclosing fat globules which are impossible to recover in the process of churning. We hope those creamery firms who are advertising for cream, "sweet or sour," will allow us to say that they cannot expect the best results by pasteurizing sour cream—in fact we understand that no attempt is made to pasteurize where cream is received "sweet or sour." We should be inclined to go farther and say that it is doubtful if the best interests of the creamery industry are fostered by advertising the payment of highest prices for cream "sweet or sour," as it gives the farmer, and the public generally, the impression that "sour" cream is just as good, and worth as much money for buttermaking as is "sweet" cream, whereas all who have studied the question know this is not the case. "But," I fancy some one says, "does not the buttermaker sour the cream before he churns it?" "Yes, he does, but the souring or ripening is under the control of the buttermaker. In the one case it is like an engine on a railway track running without a driver; or a horse tearing down a road or street with no one in charge—both may end all right, but the probabilities are considerable damage will be done before engine or horse is under control." So it is with cream soured on farms and during transit to the creamery—it may result in good butter, but more probably the quality will be injured, and it will also injure the reputation of our butter. The writer has been credibly informed that British Columbia dealers will not touch Western Ontario butter at all because of the previous experiences, and he has been told that during the past winter certain creameries have been unable to sell their butter at any price, even though "peddling" it about the streets. We hope the foregoing is not true.

Another point, is the need of reducing the loss of fat in the buttermilk to the lowest point possible. Sometimes there is an excessive amount of fat wasted in the buttermilk, caused by pasteurizing sour cream; mixing lots of cream from two or more vats in one churning; churning at too high a temperature, etc. Quite a number of creameries are putting in large churns and then are mixing the cream from two vats, each of which would make a smaller churning, in the one churning. It is almost impossible to have those two lots of the same temperature, and degrees of ripening, hence when mixed and churned, one vat is likely to churn more quickly than the other with consequent loss. For each ton of butter there will be about three tons of buttermilk. An excess of .2 per cent. fat in the buttermilk means an excess loss of twelve pounds of butter, and where a creamery is churning an average of a ton of butter a day, this means 72 pounds loss in a week, and nearly a ton in a season, which at twenty-five cents a pound is a loss of \$500. This is a point requiring careful consideration by all buttermakers in our creameries. Reduce the waste of fat in buttermilk.

A third point requiring attention is salt and moisture, which two may be considered together. Lighter salting, more uniform salting, and the moisture content of the butter well within the legal limit of 16 per cent., should receive the attention of our buttermakers. The markets are demanding lighter-salted butter and uniformity. To prevent waste of salt and to meet the demand for uniform salting, a salt test should be used by all buttermakers, in addition to a moisture test. Those not familiar with these tests should make their acquaintance before the season of 1914 opens.

The last need, which we have but short space to deal with, is a good cold-storage for storing the butter as soon as it is made. If not sold within a week, the butter should be shipped to a mechanical or other storage where the temperature is below freezing point, 32 degrees F.—a temperature of 12 degrees F. would be better. In tests made at the O. A. C., best results were got in keeping quality, by placing the butter as soon as possible after making at a low temperature, rather than leaving it at a moderate temperature for a few days, then putting in a cold place, as is advised by some.

In addition to being cold, a storage for butter should be dry and free from mould, as mould is very objectionable on butter and causes heavy losses.

O. A. C.

H. H. DEAN.

Milk and Beef.

The great amount of talk re the marked increase in price and demand for good beef incident, upon the removal of the United States tariff has not boomed the breeding of beef cattle in this country to the detriment of the dairy breeds. Dairy cattle were never in keener demand than at the present time, but out of all that has been written and said on the subject, there seems to have come a keener demand for and a higher appreciation of the dual-purpose cow. True, difference of opinion on this type of cow still exists and always will, but the fact remains that the cow capable of yielding a fair amount of milk during the year and at the same time producing a calf which judiciously managed and fed also returns a profit when turned over to the butcher, is being sought after by men who, a few years ago, scoffed at the idea. There are dozens of buyers for each milking Shorthorn in the country, and sales of this type of cattle are being attended as never before, and bids are coming faster on the milking type of cow than on the straight beef animal. A large proportion of the farming public seems to believe that there are possibilities almost unlimited in the breeding of milk-producing cattle. The milking Shorthorn is now a recognized fact, and we believe, in the Old Land, steps have been taken to improve the milking qualities of other beef cattle. Milk and beef, two staples in our diet, are the measure by which cattle must ultimately be sized up.

THE APIARY.

Queen Rearing.

Editor "The Farmer's Advocate":

Every up-to-date beekeeper should know how to raise good queens. The majority of beekeepers find it cheaper to buy the most of their queens, yet there are some that have the natural ability and love for the business, which would en-



An Old Country Apiary.

Bees are congenial company in the hot summer days.

able them to raise their own, if they only knew how. A beekeeper who is contemplating queen raising should secure a good breeding queen from a reliable breeder, then adopt any of the well-known methods, described fully in any good book.

One of the most simple methods of raising good queens is known as the Doolittle artificial cell-cup method. Take a piece of hard wood and whittle and sandpaper the point so that it will be the size and shape of a natural queen cell. Then take a small dish of melted beeswax and a cup of cold water. First, dip the stick into the water, then dip it into the wax about one-half inch. When cool dip it into the wax again seven or eight times, or until the cell has a good thick base, each time dipping it less depth. When cool it is removed from the stick, and the same process is gone through till the required number is made. The next step is to attach them to a cell bar, twelve to fifteen cells are sufficient on one bar, after which they should be given to a strong colony to be polished up before grafting.

The apiarist should now look through some of his strongest colonies in order to get a natural queen-cell from which to get some royal jelly. Having found a queen-cell containing royal jelly, the next step is to take a toothpick and transfer a portion of the jelly to each one of the artificial cups. An amount equal in size to a B.B. shot will do. Then find in your breeding hive a comb containing young larvae not more than twenty-four hours old. Cut out a piece of the comb and shave down the cells almost to the base so that the young larvae can more easily be reached. With the toothpick transfer one of these young worker larvae into each of the cups containing the royal jelly. The cell bar should then be fastened securely in an ordinary frame, and placed in the center of a strong colony that is superseding their queen; or placed in the top story of a strong colony having brood over an excluder. In ten days' time these cells should be distributed to nuclei made ready to secure them,

or they can be used to advantage in requeening old or failing queens. As a rule, the young queens will be found laying about eleven days from the time they hatch.

The best time to raise good queens is during a honey flow. At any time when honey is not coming in from the fields bees will not accept queen-cells by the ordinary method, and have to be fed. At such times the average apiarist will find it to his advantage to use only strong colonies made queenless and broodless; they should also be fed about a quart of diluted honey and water each evening. An ordinary five-pound honey pail with a few awl holes in the corner makes a very good feeder for this purpose. It should be placed directly over the cluster. If the nights are cool sufficient packing should be used to prevent the escape of heat from the cluster. A beekeeper who has a limited amount of time to attend to his bees had better raise his queens during the honey flow, or buy them. There are so many little details to keep track of, and strong colonies will not accept cells so readily, or they may supersede these young queens, thereby making the colony of very little value the following season.

Prescott Co., Ont. JOHN A. MCKINNON.

Wintering Bees.

Editor "The Farmer's Advocate":

In your paper of March 5th, W. H. S. asked for information regarding construction of chaff-packed hives. As you say, most beekeepers pack single-wall hives four in a clamp, but have to unpack again in spring. I am now using a hive along the line asked for, only I do not think two inches enough packing so I use four and six or eight inches on top. I make it of 1-inch lumber, and find it strong enough to stand all the strains liable to any ordinary hive. I must take exception to the last part of your last statement regarding such a hive being too warm in summer. There are at least four reasons I can give. First, we have fewer swarms,

the chaff hive being cooler in summer and keeping a more uniform temperature—that is, it is warmer at night and cooler in the heat of the day. Taking the two hives side by side in actual test it has been found that the difference between the two extremes of temperature in a single wall hive was 20 degrees greater than that in a chaff hive. Second, we have larger colonies, which means more honey. Third, we have faster work by the bees, as the hive is warmer at night, allowing the

bees to ripen and store faster. Fourth, then there is less labor and muss in spring and fall, one having only to place a chaff tray upon the hive and replace the cover over all. Such a hive as I make is, I admit, not as easy to handle by one man as it is rather larger but it is not much heavier, as it is only 1-inch lumber.

An explanation of the fact that such a hive is cooler is the same as that which leads us to pack ice in sawdust, viz., the loose, porous material is a non-conductor of heat and cold.

Brant Co., Ont.

C. E. S.

POULTRY.

Hatching Poultry on the Farm.

Editor "The Farmer's Advocate":

The hatching season is once more looming up before the minds of poultrymen. Some in fact have begun operations, but in this part of Canada (Carleton and the other eastern counties) the latter part of April and May are the favorite hatching seasons. Anything earlier than this is found to be very unsatisfactory; eggs expensive, hatches poor, owing to weak germ due to too little exercise on the part of the hens, and conditions generally, unsatisfactory.

Eggs coming from a distance sometimes prove very unsatisfactory at any season, but especially so during the early months, as the germs which are likely to be weak at the best are weakened still more by careless treatment and exposure en route to their destination. Later on they are much stronger and will, therefore, give better satisfaction. Those who get eggs from a distance, however, may increase the hatchability of their eggs by resting them for at least twelve hours in a cool, dry, well-ventilated room, having the temperature ranging around 50 degrees. The germ is a very delicate organization, and if started directly on its incubating

process after being jarred and disturbed out of its normal state it is much less likely to hatch a strong, healthy chick than if it is allowed to rest before being placed under the hen or in the incubator. This I have proved by actual experience.

New-laid, properly-fertilized eggs from vigorous, fully-matured breeding hens form the basis of successful hatching, and this important point should be remembered by all aspiring poultry keepers. There are also other matters equally important, such as free access of air during the period of incubation, for without oxygen for developing chick death will ensue. When only a few hours old—that is after incubation commences—it obtains the air necessary for its existence from the air chamber seen at the large end of the egg. When the eggs are placed under a hen she regularly turns them every day, and the same process is necessary when an incubator is used, otherwise the embryo chick will die. The shell of the egg must be clean, as if it is dirty it will have a tendency to keep out the air. Many failures arise from inattention to this. The conditions necessary for successful incubation are an even temperature and a certain amount of moisture or humidity, and good eggs. If a good hatch is desired, and most people prefer this, the eggs should not be over a fortnight old, and the fresher the better. A stale egg will often take as long as twenty-three days to hatch, but the longer the time the weaker will be the chick. In dealing with the sitting hen, one of the chief points to be noticed is the maintenance of the temperature. A hen will sometimes sit so close that she will not even leave her nest for food. This must be attended to. If she refuses to eat, she must be tempted with something unusual. I find that table scraps are fine for this.

Avoid chilling the eggs by allowing the hen to remain too long off the nest, or if not shut in she is liable to be off too long without anyone knowing of it unless closely watched. The owner is often responsible for the chilling by giving her more eggs than she can cover. This is especially the case in cold weather. A small number of chicks well incubated will make stronger chicks than a large number badly incubated. And if a large number hatch the hen cannot brood them so well nor keep them warm, and therefore their progress is slower. See also that the eggs do not become too dry. I make a practice of placing a grass sod, turned earth side up and slightly hollowed in each nest, and if the nests are not near the ground I sprinkle a little warm water over the eggs occasionally. This, of course, refers to hen hatching. My incubator is supposed to have enough moisture in the egg chamber to supply all the moisture necessary, but after several trials of it I decided that there was not enough, and at the beginning of subsequent hatches I introduced into the egg chambers an agate pie plate filled or partly filled with fresh buttermilk, which I renewed frequently. When buttermilk was not available I used water, to which I added a drop or so of zenoleum. I have had excellent hatches with almost no chicks dead in the shell since following this plan, so am sure that it is good. I also use the disinfectant as a wash, according to directions to disinfect the incubator before beginning the hatch, and put the eggs in before it is quite dry. By doing this any disease germs that may have collected on the eggs are removed.

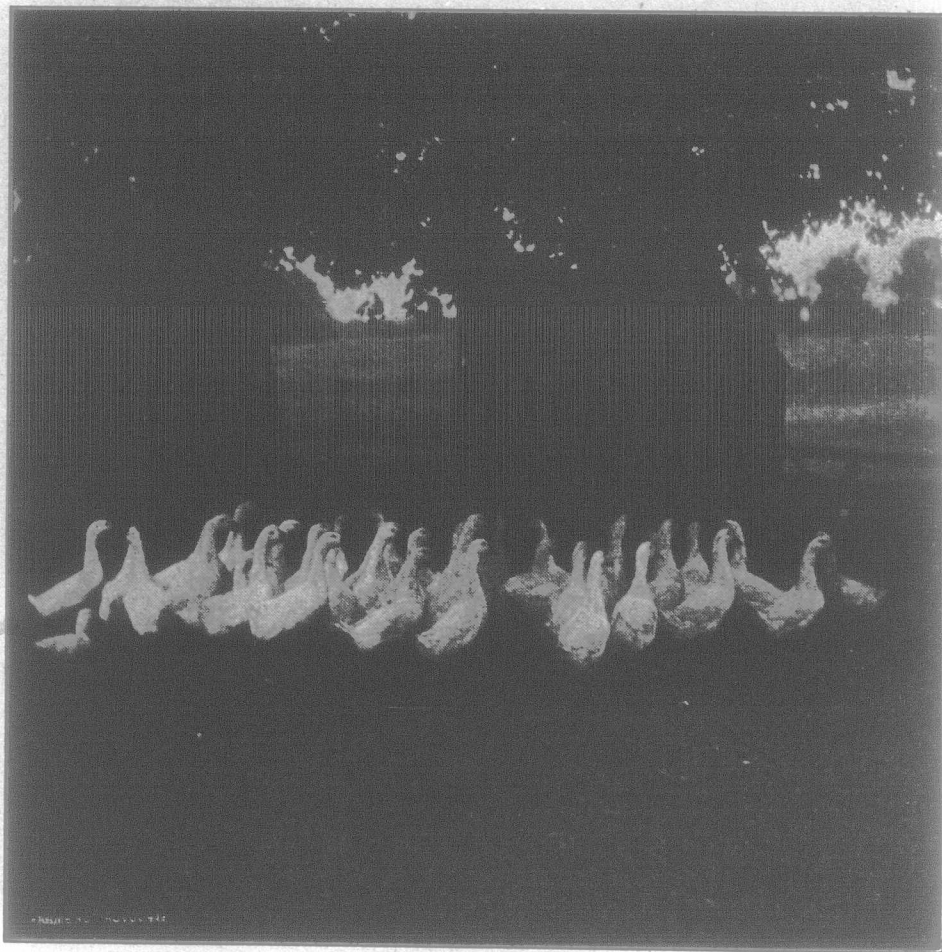
Where incubators are used much depends on the make of the machine, the arrangement of securing the necessary amount of heat, etc., and moisture, but above all, a thorough knowledge of the machine in use. However successful we may be with one incubator we may fail utterly at first with one of a different make. Make yourself master of your machine, and then begin to hatch. Of course, there are failures with natural hatching, due to three main causes. They may be due to some fault in the eggs or to the sitting hen, or to the owner's carelessness as to circumstances under which he forces the incubation to take place. With regard to the eggs, of course, the chief thing is that they are fertile. Fertile eggs may either become addled by rough handling, or the chick may be formed only to die before it can make its way out of the shell. Either of these misfortunes may be one of the weaknesses of the germ, inbreeding or breeding from old and worn-out birds, or on the other hand, from young and immature stock. Towards the end of the season also the germ is weaker. Sometimes weakness is caused by allowing too many hens with one male or vice versa. Insufficient care in collecting and preserving the eggs for hatching may cause them to fail.

Farmers, as a rule, pay little or no attention to the proper mating up of their flock, with the result that they have hens of a nondescript variety and no particular egg record. To get the best results trap-nesting is to be encouraged, but when one cannot or does not care to go to the bother of trap-nesting the next best plan is to observe individuals in the flock closely, leg-band the early layers, and watch them closely for any sign of weakness; cull out the weaklings and breed only from the best. Yard the main flock if possible and let the breeders have a good run,

or if this is not possible then yard the breeders. The initial cost of enough poultry fencing to yard a dozen or so hens is small compared with the improvement which can be made in the flock in a very short time. By choosing your breeders and separating them from the rest of the flock you know exactly what you are breeding from. Instead of having to set eggs from the good layers and the poor layers alike, and very often when no selection is made it is the eggs from the poor layers just beginning to pass in their quota of eggs that are used, you can have eggs from only the good layers, and it is by this method and this only that the high record hens are produced. A hen laying from forty to fifty eggs in a year will have a poor show for producing a two-hundred-and-forty egg pullet. He who is going to make a success of poultry raising must have an ideal ever before him. Make the two-hundred-and-forty or even a three-hundred-egg hen your ideal, and climb steadily toward that point by breeding only from high-egg-record hens mated to males of the very best type and strain procurable. Year-old hens mated with two or three-year-old males or two-year-old hens mated with year-old males give the best results. Never mate old hens with old males, or young hens with young males. Have vitality and vigor on both sides and avoid over feeding, as fat hens rarely produce highly-fertilized eggs. Provide plenty of green feed in the form of cabbage, turnips, mangels, or clover, and keep your breeders busy. Vigor and vitality in the breeding pen means vigor and vitality in the chicks. Couple this with careful attention to the care of your eggs before incubation and during the process, and you will be amply rewarded for your trouble.

Carleton Co., Ont.

RUSTICUS.



Profitable Poultry.

Place the summer houses for the poultry in the shade.

HORTICULTURE.

The Strawberry in the Farm Garden.

Editor "The Farmer's Advocate":

Of all small fruits grown in Canada, the strawberry is pre-eminently the most popular. While one may meet people holding dislikes to other fruits, an occasional person disliking even the raspberry, the strawberry seems to be a universal favorite. Yet, notwithstanding this, and in spite of the fact that it is one of the most easily cultivated of fruits—how very few comparatively are the farm gardens containing well-kept, productive strawberry beds. Having grown this fruit for a good number of years, I will give a few practical pointers for the benefit of beginners.

Almost every farmer will tell you that he has tried growing strawberries, but they won't grow on his land. Be it heavy or light, moist or dry, the soil usually gets the blame for the lack of success. Yet this fruit succeeds on a very wide range of soils. There seems to be an impression abroad, however, that the strawberry

will not thrive, excepting in dry situations amateurs nearly always choosing the driest spot available, with the result that, unless the weather be very favorable at fruiting time, the berries dry up, and the grower throws up the game in disgust. The writer has been growing this crop of late years on rather low land, although water does not stand on it a length of time, and yet in 1912, the season of continual downpours, the best part of a bumper crop was produced on the lowest portion of the plantation. My advice, therefore, is to plant in fairly moist soil, unless some system of irrigation is available at fruiting time.

Plants to give good satisfaction, should be taken only from rows of last year's planting, which have not been allowed to fruit; selecting the strongest, near the mother plant, in preference to the partially-developed plants, at the outside of the row.

Standard varieties, which have proven profitable in the hands of experienced growers, are the kinds to plant. Keep shy of the new varieties, being boomed by nurserymen. They may or may not prove valuable, and experimenting with them is likely to end in discouragement for beginners. When once a variety is found to give good results stick to it, until you are sure you have a better one. When I began strawberry growing, I obtained some plants of the Clyde variety in a co-operative experiment, and although I have tested a considerable range of varieties, the Clyde is still the standby. While other kinds have deteriorated, it seems to actually improve from year to year. It might not be suitable for long shipment, but for the home garden and nearby market I consider it as near the ideal berry as any I have seen.

The soil should be prepared if possible by a cultivated and manured crop the previous year, deeply fall plowed, and followed by thorough cultivation in the spring previous to planting. Fine or well-rotted manure should also be applied before the spring cultivation if necessary. The soil can hardly be made too rich for this crop. Furthermore, heavy manuring is conducive to retention of soil moisture, so necessary in this case. Once the plants are dug, every effort should be made to prevent the drying out of the fleshy rootlets. It pays also to clip about one-third of the roots off with a pair of shears—cutting squarely across. A better root system, will be the result. Plant as early as possible. Years of experience have taught me that the earliest planted

rows invariably give the best results.

Plant in long rows if you can, and allow from three and one-half to four feet between rows to permit of horse cultivation. In these days of scarce labor, the strawberry patch is liable to be under cultivated if sole dependence is made on the hoe. Eighteen or twenty inches is about the right distance to space the plants in the row, and the spade is the best tool for planting, thrusting it into the soil and opening the hole by shoving the handle away from one, the plant is now placed with the crown just at the surface, after which, the soil is packed around the plant, with the foot as firmly as possible.

Cultivation should begin at once to conserve the soil moisture and should be continued at least once a week throughout the growing season. Cultivate quite deeply and close to the rows at first, gradually working more shallow and narrow as the rows develop. Keep the soil immediately around the plants well loosened with the hoe. This is needed most particularly in the early part of the season. Pinch off all blossoms as they appear. Many beginners fail to do this, thinking that it will make but little difference and "won't it be nice to have some strawberries this year?" The writer has repeatedly proven by experiments that it is a genuine

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case of penny wisdom and pound foolishness to allow strawberries to fruit the first year.

When runners appear they should be placed, by drawing a little earth over them, near the top, taking care not to cover the top. Once the row has developed to a width of two feet or so, all extra runners should be cut off, to allow the whole strength to go into the plants already set. Although good crops are produced without mulching, it is usually wisest to scatter a little clean straw over the rows once the ground has frozen quite solid, removing this when danger of frost is over in the spring.

A well-kept, strawberry patch will help to solve the problem of making farm life attractive. What pleasure can compare with that of picking a basket of crimson berries, in one's own garden, in the dewy coolness of a summer morning. Grow strawberries. Simcoe Co., Ont. W. J. GALBRAITH.

Pears and Peaches on the British Market.

At this period in the development of the fruit industry in Canada, growers should be on the look-out for the extensions in the market, and with the present and always improving systems of transportations the European markets should not appear too remote. Especially is this true if they will return remuneration for the extra care in packing for their long ocean voyage. In the last weekly report of the Trade and Commerce Department of Canada a leading commission firm in Covent Garden Market, England, has communicated his experience with pears and peaches shipped from Canada during the autumn of 1913.

Conditions were such during the past season that very handsome prices were received during the early shipping season. The English and French crops were practically failures, and the sprinkling of the Californian and Hudson River pears left the European demand quite unsatisfied. Consequently the early shipments from Canada met with more approbation than they customarily do, and had not the later shipments arrived in over-ripe and unsatisfactory condition the reports and returns would have been very encouraging to Canadian fruit growers.

The early shipments of pears, chiefly Bartletts, arrived in good condition. They were green and firm and first grades sold as high as 50s. per barrel, while second grades sold for 45s. The largest part of the arrival of Bartletts from Canada, however, were packed in half-boxes, which sold at prices ranging from 6s. to 9s. 6d., while some parcels of fruit packed in patent packages realized as high as 11s. per half-box. This half-box averaged in weight about 29 pounds gross, and makes a very satisfactory container for pears going to the British market.

The later shipments were quite unsatisfactory in nature. Whether this is due to poor storage or inclement weather conditions before harvest cannot be clearly determined, but some on arrival were over-ripe and even dripping. It is true that in some localities the fall season was wet and rainy and this may have militated against the good conditions of the harvest, but there were some conveyed across the water in refrigerator boats which arrived in an unsatisfactory condition, indicating that they had been stored on the American side for some time before being sent forward. It is absolutely necessary that the pears be picked and stored while still firm, in order that they may arrive on the other side in an acceptable manner and return satisfactory remuneration to the growers.

The Canadian barrel, especially where eight hoops are used, two at the top and bottom, and four bilge hoops is commended by British commission men, but the half-box receives more commendation.

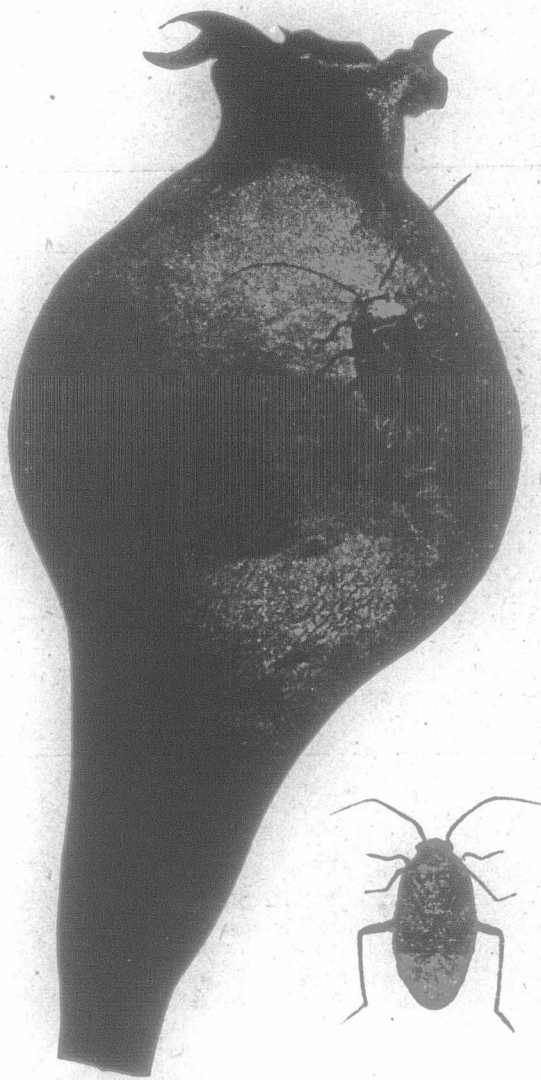
The bulk of the pears in barrels were Keiffers, but a fair sprinkling of Duchess, Anjous, Seckles, and Louis Bon were also in evidence. Keiffers sold from 15s. to 28s., for the first grade; Duchess pears ranged from 25s. to 45s.; Anjous, 20s. to 26s., and Seckles, 26s. to 32s. The general price per box ranged from 5s. to 6s. 9d., and for half-boxes from 3s. 6d. to 4s. for first grade fruit of these varieties.

Successful shipments of peaches were also sent forward. Many of these were half-boxes which contained from thirty-six to forty-eight fruits each, and sold at from 9s. to 11s. per package. This must be considered as a very satisfactory result when we look back at the general prices received for peaches throughout Canada during the last season. Most shipments that have been sent to the Old Country market in the past have returned satisfactory prices, and it looks as though shippers may in the future develop a good market for peaches in the British Isles. There is one thing that must be remembered in connection with all fruits, and that is that they must arrive in a good firm condition before they will be purchased by the consumers at a price that will allow a small margin for salesmanship in the handling of such fruit, and compensate the grower.

A Pear Enemy.

Among the many insects which attack and deform pears might be mentioned the curculios, which pierce them in laying their eggs; case bearers which chew minute holes in the skin, and green fruit worms which gouge out considerable areas of both skin and flesh, but there is yet another insect known, commonly, as the false tarnished plant bug and scientifically as *Lygus inivitus*, which is responsible for many a deformed or fallen pear.

Before the pear is one-half inch in diameter these little insects will suck out the juice and cause the fruit to drop if the punctures are early or numerous. The injury is a characteristic one and quite different from those produced by other insects. From the minute orifices left by the punctures, drops of sap first exude and may hang for some time, but when these disappear the work of the insects shows as small or blackish spots or points. As the pear grows the outer layer of the skin about these spots becomes ruptured and a light-yellow, mealy-appearing growth of the inner layers of the skin protrudes, making a more or less triangular spot; or when two or more spots run together a patch or crack lined and bordered with corkish tissue. The yellowish protruding growth at first makes a marked contrast with the smooth, green skin of the little pear; and later the cessation of growth at these points causes depressions and marked general deformity of the fruit.



False Tarnished Plant Bug.

The adult of the False Tarnished Plant Bug on a pear. From New York Bulletin, No. 368.

The insect as described by F. H. Hall, of New York Agricultural Experiment Station, is allied to the common tarnished plant bug, which is so often seen during the hot days of summer upon the weeds and succulent plants. They first appear as small, tiny nymphs in the first stage at blossoming time, but they undergo five different stages before they are fully developed. The first two nymph stages are spent upon the blossoms and unfolding leaves, while the three latter stages are spent chiefly upon the fruit. These transformations require about one month's time, and they become mature during the last week of May and the first week of June. They exist for about one month in the adult form and finally disappear during the month of July.

The main protective resource must be spraying. The grower who has any fear of an attack by this insect should examine the trees carefully, commencing with the dropping of the petals, and if the young nymphs are found, should spray immediately. Ordinarily one application made just after the blossoming period should control them efficiently. In the station tests tobacco extract, known as black leaf forty, has given success when using three-quarters of a pint of extract to one

hundred gallons of water, to which are added three pounds of soap. Some growers have combined the tobacco extract with dilute lime-sulphur containing arsenate of lead, as applied for codling moth, with satisfactory results.

Where Does Late Blight Winter?

It has never been definitely ascertained by scientists whether the disease known as late blight of potatoes, causing the rot, will winter over in the ground or whether it must be conveyed into the soil by unhealthy tubers. Authorities on both sides of the water have differed on this question, so that it has been considered dangerous to plant potatoes where a diseased crop has been produced the year before. However, F. H. Hall, of the New York Agricultural Experimental Station, has summarized the experimental work conducted there in connection with this disease, and they have proven to their own satisfaction that the disease must be transmitted by the tubers, and that it is not unsafe to plant upon a blighted field if healthy tubers are used.

To test the liability of such transmission, the Station Botanist has carried on careful tests in two seasons, and finds no evidence that the fungus can survive the winter in the field, in central New York at least. In each of the tests, soil from a field of diseased potato plants was thoroughly mixed, in boxes, with broken, rotten tubers and pieces of blighted stems; and the boxes were exposed to the weather during early winter. Later the boxes were brought into the forcing house, a sound tuber was planted in each and conditions made as favorable as possible for growth of plants and development of the disease. In spite of warmth, abundant moisture, both in the soil and in the air, and luxuriant, succulent growth of the plants, not a sign of blighting appeared, even when the plants were grown in a special glass chamber and thoroughly wet daily with water drained from some of the soil mixed with diseased material, or were painted with a thin mud made from such soil.

The results, being negative, do not prove that the late blight fungus cannot remain alive over winter in the soil, but they make such persistence appear highly improbable.

It would seem unnecessary then to change the location of the potato crop to avoid this disease, especially as we know that thorough spraying will control both blight and rot, and will increase the crop enough, taking one year with another, to make this a highly profitable regular practice in potato growing.

The Farm Hotbed's Second Crop.

Editor "The Farmer's Advocate":

When the plants have been removed from the hotbed into the cold frame it will be ready for a second crop, such as radishes, lettuce, mustard and onions. Hoe over the soil, fertilize with wood ashes, then sterilize the soil with a weak solution of formaldehyde in boiling water to destroy all insects and fungi that are sure to be there after the first crop. As the season advances and the temperature during the day increases the sashes should be allowed to remain off the hotbed during part of the day and a shade provided. A good way is to tack chicken netting over the hotbed (so as not to interfere with the sashes) and on very warm days lay cheesecloth over the chicken netting. This will provide sufficient shelter and will also help to retain the moisture.

Before sowing radish seed, soak it in coal oil for a few hours, then sow in rows six inches apart and between the rows sow lettuce, mustard or onion seed. The radishes will come to maturity and be removed in 12 or 15 days, leaving the lettuce, etc., which take from 20 to 30 days more space to grow. Keep the temperature high, water profusely, and force the growth of this crop if nice, tender vegetables are desired. Some annual flower plants will be needed for the garden and these should be first planted in the hotbed. Bedding geraniums that have been kept in the cellar during the winter may be started in this way, if there is any life left in them. Tubers and roots, such as cannas, dahlias, tuberous-rooted begonias, gladioli, can be made to bloom a month earlier by putting them in the hotbed for a couple of weeks. For budding early potatoes and testing mangel, sugar-beet and turnip seed or corn before sowing for a field crop, you will find the hotbed very useful. The hotbed may also be used a third time for growing mushrooms. They are very easily grown if the temperature of the now spent hotbed is kept between 50 and 60 degrees and a covering kept over it during the daytime to exclude the light. Mushroom spawn and the directions for growing them may be procured from any seed merchant. THOS SOMERTON, JR., Lanark Co., Ont.

Water Cress in the Garden.

Country and city people who have tasted the piquant leaves of cress and acquired a liking for it often ask if they would be able to produce it if it often ask if they will be able to produce it conditions surrounding this plant, in its natural state, be taken into consideration, and duplicated as nearly as possible in the cultivated patch. Town and city folk even could enjoy much of the relish which this plant supplies, for a very small bed if properly handled will produce a large amount of leaves.

Moisture and coolness are prime requisites, and although fertility will hasten the growth of the succulent leaves it is not the most important factor. The bed should be made in the shadowy side of a building or shed, but if it is to be grown in the garden some artificial shade might be provided. Trestle work rudely constructed and covered with brush will answer the purpose, and it is only in the initial stages that the most precaution is necessary. When it becomes rooted and thoroughly established the rays of the sun do not jeopardize its chances to the same extent, and only recently the writer saw a magnificent bed, ready for cutting, in a greenhouse where it was exposed to the direct rays of the sun. After it is once rooted it will take its chances with the weather, but in the intense heat of summer it is better protected.

One may propagate water cress by cuttings or seed, but it is only under extreme and uncommon conditions that one should resort to seed to establish a bed. The plants do not amount to as much the first year, and run the chance of freezing out in the winter. There is so much growing in our creeks and small waterways that any country or urban dweller may procure it easily and without price. It is simply plucked out of the water or moist soil and transplanted into the bed.

Success will depend largely upon the preparation of the soil to receive the small plants. If possible select cool soil, retentive of moisture, and build it up by incorporating with it a large percentage of leaf-mould or well-rotted horse manure. Fertility is not the motive here, although it serves an important function, but the object in view is to prepare the soil so the roots will spread and reproduce the plants. In addition to this it will hold more moisture, and water cress will thrive in direct proportion to the amount of the supply of water. Some growers who have commercialized the production of water cress and who are located in the vicinity of breweries make use of spent hops, but they cannot be applied in the raw state for their effect would be negative rather than favorable without preparatory treatment.

With the bed thus prepared and well saturated with water, introduce the small plants from the brookside and keep it well shaded and watered until the rootlets get a firm hold on the soil. After this water frequently and keep it shaded from the sun, and in a short time you will have a garden plot that will supply many a dainty supplement to the otherwise ordinary meal.

Pleasant Winter Work.

Since a moderately good greenhouse is within the reach of all farmers at a nominal price, negligence should not be allowed to linger at the door for many future years. If located near a small town, it would be a source of handsome profit to the owner, and in addition it would give pleasant winter labor to the employee who customarily terminates his engagement with the farmer in the fall because he will not provide winter work. Some farmers are so constituted that they will not apply themselves to such work as operating a greenhouse where punctuality, exactness and perception are necessary, but there are others who will.

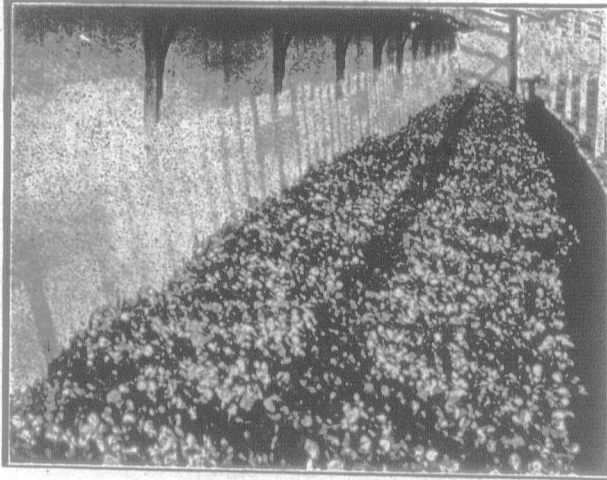
In the number of January 8, 1914, Mr. Van Valkenburg writes how they constructed a small house at a cost of \$150.00, and in which they produced 17,000 early tomato plants. This is an early spring crop, and during the winter lettuce and many other good-selling crops might be produced.

There is nothing about the production of lettuce that will not permit of its being grown in a greenhouse of ordinary dimensions. The seeds are first sown in flats, and for these common finnan-haddie boxes serve the purpose admirably. During the month of February the seed would be up in about four days, and when they are getting the second leaf they are transplanted into flats, being set about two and one-half to three inches apart. Here they are left and well watered until they have the third and fourth leaf started, when they are ready to be set into the permanent bed. Under conditions existing in February, four weeks from the last transplanting should be sufficient to develop the crop fit for cutting, and it will find a ready market at the last of February or the first of March. Lettuce may be produced at any time, but this particular time was chosen as it was necessary to designate the conditions in order to state the

periods when certain operations may be carried out.

The permanent bed is simple and easily constructed. Different growers have different methods, but a satisfactory bed may be made of one foot of cinders in the bottom covered with eight or ten inches of soil. The surface soil should contain a large percentage of leaf-mould or humus that it may be fertile and retain the moisture. Here the amount of water required is easily met by a large watering can or hose if an improved water system is available. The temperature for lettuce should approximate 45 degrees Fahrenheit at night and 58 to 60 degrees in the daytime.

This addition to the farm operations cannot be recommended to all farmers, but those located in canning-crop districts or situated near a town or city could produce saleable commodities during the winter, and provide themselves with plants for the early tomato or early cabbage field.



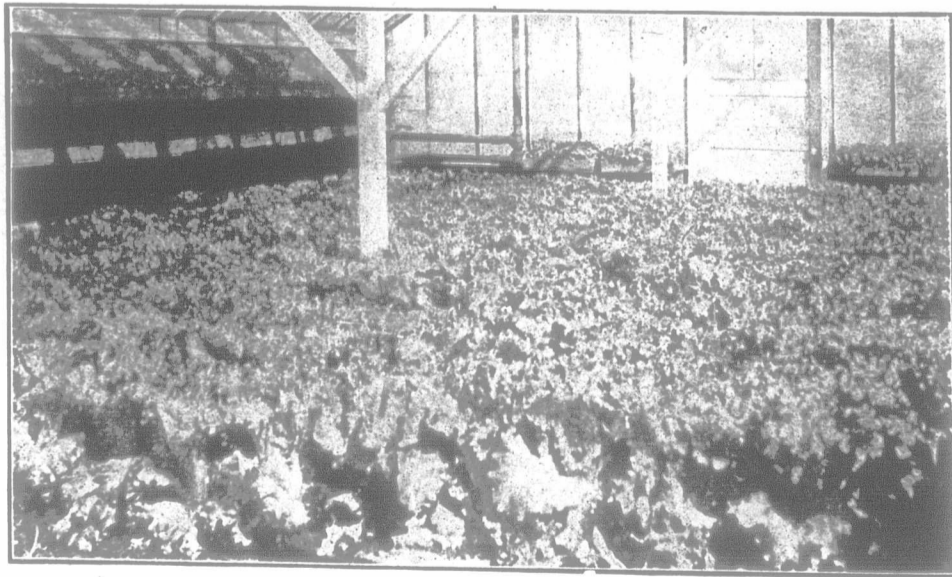
Water Cress in the Greenhouse.

FARM BULLETIN.

Milking Shorthorns Sold Well.

A very successful sale of milking Shorthorns was that held by Walter Pullen at his farm near Beachville, Ontario, March 10th, when his fifteen head, including calves just a few weeks, old and some cows well on in years averaged \$149.50.

The highest price of the sale was \$285, paid by W. Johns, Woodham, for the cow, Butter Belle; but the sensation of the sale was Belle of Beachville 2nd, a nineteen-year-old cow, which fell to the bid of J. J. Graham, of Ailsa Craig, for \$165. She is perhaps the heaviest milking cow of her age in Canada.



A Source of Many Salads.

A bed of lettuce fit for cutting in the greenhouse of Main & Collyer, London, Ontario.

The following is a list of animals sold, with their buyers:—

Belle of Beachville 2nd, J. J. Graham, Ailsa Craig,	\$165.00
Butter Belle, W. Johns, Woodham,	285.00
Belle of Beachville 3rd, J. Milton, Brantford,	195.00
Duchess of Maple Lane, H. Inglehart, Merton,	160.00
Maple Lane Queen, T. Wilks, Tavistock,	140.00
Dean Star 6th, Wm. Weld Co., London,	220.00
Zora Lassie, R. Dunlop, Mohawk,	180.00
Erie Lass, John Virton, Woodstock, ...	160.00
Princess 7th, Jas. Weir, Dorchester, ...	80.00

Princess 6th, Alex. True, Woodstock ...	100.00
Model Lass, A. Pullen, Woodstock	60.00
Duke of Athol, J. Lindsay, Embro,	250.00
College King, J. Johns, Ellinsville,	130.00
Royal Performer, J. Moyle, Paris,	62.50
Oxford Lad, S. Jackson, Woodstock, ...	55.00

London Shire Show.

Far-away readers interested in the results of London Shire Show just over, will be glad to learn that the strains of blood which did best on the two days were those of Childwick Champion (sired 14 winners). Redlynch Forest King (sired 9), Norbury Menestrel (sired the same number), Lockinge Forest King (whose offspring won 7 prizes), and Mimm's Champion, Birdsall Menestrel, Hendre Hydrometer, King of Tanridge, and Slip-ton King, whose stock stood in that order of merit.

The Show is still remarkable for the uniformity of quality-like Shires it attracts in huge forces. They turned out in eighties and nineties a class, but the judges, Forshaw, Thompson and Keene, never wavered, and did their work with praises earned all round. In yearling fillies the Edgcote Shorthorn Company, whose Shire stud promises to be as famous as the Shorthorn herd, won with Fine Feathers, a handsome bay by Babbingley Nulli Secundus. Fine Feathers is of exceptional development, and it is seldom one sees a filly of her age with such substance. She stands well and her feet and joints are excellent. The Duke of Westminster's Eaton Modesty, a filly of similar character, but scarcely so forward as the winner was second, and J. W. Kenworthy's Delamere Combine, who was third, is a big, good-looking bay with capital joints and good bone and feather.

In two-year-olds, last year's winning yearling, the Duke of Westminster's Eaton Encore, was first. She has grown into a beautiful filly, with all the quality and character which she promised last year, and she looks like having another "unbeaten" year. The Edgcote Shorthorn Company were second with Blackthorn Betty, a big, well-grown, handsome filly with a good look out. Third prize went to Sir Walpole Greenwell's Marden Dorina, a nice stamp of mare.

Three-year-olds made one of the best classes of Shire horses that have been out for many years. First prize went to J. G. Williams's Snelston Lady, which made such a sensation last year when she beat Sir Arthur Nicholson's previously unbeaten Leek Dorothy. Second honors went to Sir Walpole Greenwell's Marden Ernestine. Sir Arthur Nicholson's Leek Dorothy, which took third, scarcely made such a good show as she usually does. J. G. Williams's Garston Surprise, the Ashbourne winner, was fourth. She has grown into a powerful mare and made an excellent show.

First in four-year-old mares fell to Whitley's handsome mare Sussex Pride. Sir Walpole Greenwell's Marden Constance was runner-up. Mares, five years and upwards, under 16 hands high, saw Sir Walpole Greenwell's Pailton Forest Lass win. The strong class among brood mares is always that for mares not exceeding 16 hands 2 inches. First went to John Bradley's Halstead Royal Duchess, a winner at Leicester and the Royal. She has grown into a handsome mare, full of quality. J. G. Williams's Maid of Athens, who won several prizes last year, made a good second. In mares over 16 hands 2 inches, Whitley's much improved Lorna Doone caught the eye at once by her size, power and quality. The Duke of Westminster's Tandridge Mabel was second. Lorna Doone was chosen as the female champion, with Snelston Lady as reserve.

In yearling stallions, there was not much to choose between the first four. Potter's King's Choice, who was first, is a big, weighty colt, standing over a lot of ground, and looks like growing into one of those powerful stallions for which there is such a demand. The Edgcote Shorthorn Company were second with Edgcote Monarch, a bay built on very similar lines. Lord Rothschild's third-prize colt, Normandy Jesse, is a rather different type. He has scarcely the length which distinguish the two placed above him, but he is a compact, powerful colt, with ex-

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cellent legs and feet, and he looks well worth the 600 guineas he cost at Sir Berkeley Sheffield's sale at Peterborough. In two-year-olds Lord Rothschild won with Orford Blue Blood, a bay of remarkable quality and substance. It would be difficult to find a horse more perfect in his points and ankles. His bone and feather are excellent, but he seems a little light in the neck. Sir Arthur Nicholson's Leeke Redlynch, which was a very good second, has exceptional masculine character, good collar-filling shoulders, and is a big, powerful young horse, with good limbs and excellent action.

Great interest centered in the class for three-year-olds, in which last year's champion, Sir Walpole Greenwell's Champion's Goalkeeper, was entered. The crack made a fine show, and he has grown into a big, fine horse, fulfilling all the great expectations which were formed of him last year. He made a really great show, and looks like holding his own during the season. First prize in four-year-olds went to James Gould's Snowdon Menestrel, who has grown into quite a good horse, with beautiful limbs and plenty of size and power. Sir Arthur Nicholson's Tandridge Forester, who was second, has scarcely the character and quality of the winner, but he is the better mover. H. H. Smith Carrington's Ivy Victor Chief won in stallions under 16.2, with Barber's Thanet King, a powerful horse for his inches, second. Potter's powerful Monnow Drayman won in over 16.2 hands stallions, and the Duke of Devonshire was second, with Warden Draughtsman, the champion in 1912. Best of all the aged stallions was F. E. Muntz' Danesfield Stonewall, now ten years old. He is a majestic horse, with a leonine head and crest, and a gaiety of motion that is astonishing in a horse his size and weight. The junior cups for stallions went to Sir W. Greenwell's Champion's Goalkeeper, with Lord Rothschild's Orford Blue Blood reserve, but many preferred Potter's King's Choice, the winning yearling. Muntz' Danesfield Stonewall won the cup for older stallions easily enough, with J. Gould's Snowdon Menestrel reserve. But there was a struggle for the actual Challenge or Championship Cup, opinions being pretty evenly divided outside the ring. Finally Champion's Goalkeeper won, with Danesfield Stonewall reserve. The reserved seats applauded the winner, but the grooms cheered for the latter. H. M. the King visited the Show on the second day and presented the prizes.

London, Eng. G. T. BURROWS.

H. F. Patterson's Sale.

An admirably managed sale was that of Mr. H. F. Patterson, on Thursday, March 12th. Comfortably seated in a large tent, protected from the cold March winds, the several hundred breeders and others present were in a position to appreciate the excellent qualities of the animals as they were led before the auctioneer's hammer, and the splendid prices paid showed that to get the best out of a man he must have a full stomach and a warm pair of feet. The offering, as a whole, was of a high individual standard with remarkable uniformity, and they were brought out in nice condition. Many of them have proven by official test to be exceptionally heavy producers. Only about half the offering was sold before we were compelled to hie to the train. Of the 17 sold, two years of age and over, the splendid average of \$236 was realized, the highest price being \$380, and 13 of them sold for \$200.00 each and over. Four heifers made an average of \$131.25, and seven bulls from calves up to 15 months made the average of \$86.00. Following are those selling for \$100.00 and over:

Madeline Roxie; F. Hamilton, Niagara Falls.....	\$100.00
Butter Queen Hilda; W. F. Clark, Powassan.....	245.00
Prairie Flower's Butter Queen; R. Lawless, Thorold.....	240.00
Sevangeline 2nd's Snowflake; W. G. Bailey, Hamilton.....	325.00
Sevangeline 2nd; W. F. Clark.....	105.00
Blanch Kay; W. W. Hurd, Onondaga.....	175.00
Blanch Kay Beauty; F. Hamilton.....	285.00
Breta; W. G. Bailey.....	315.80
Breta's Nellie; A. E. Condwell, Norwich.....	230.00
Hulda's De Kol Princess; J. F. Goodall, Bellwood.....	250.00
Hulda's De Kol Princess 2nd; T. W. Craig, Brantford.....	380.00
Hulda's De Kol of Riverside; W. F. Clark.....	255.00
Hulda's De Kol Riverside 2nd; J. Moote, Canboro.....	230.00
Duke of Brant; Chief Smith, Six Nations Indians, Brantford.....	250.00
Lillie Kay; C. Allardyke, Rockton.....	200.00
Snowflake Three Spot; W. B. Mason, Cainsville.....	275.00
Peninsula Laura De Boer; L. H. Lipsitt, Stratfordville.....	165.00
Nellie Claire; E. G. Brown, Ancaster.....	105.00
Alice Margery; J. Moote.....	115.00
Luella De Boer; G. Durham, St. George.....	287.50
Topsy Canary De Boer; W. H. Johnson.....	115.00
Lady Canary De Boer; N. Edmunson, Brantford.....	140.00

Brandon Winter Fair.

The annual Winter Fair at Brandon, Manitoba, closed with the week ending Saturday, March 7th, and opens the season, as it were, for the shows of 1914. In a country like the Prairie Provinces it is not marvelous that this fair should, each year, eclipse all previous records, for radiating from that city is a country that is just awakening to the value of live stock in building up the agricultural wealth of the provinces and maintaining the fertility of the soil, that heretofore has been exported to other provinces and countries in a thoughtless and prodigal manner.

The Winter Fair just closed was favored with agreeable weather, and this combined with an efficient Fair management made a success that marks an epoch in the history of the Brandon Winter Fair. The various breeds of live stock were well represented. In horse flesh Clydesdales and Percherons were strongest, and the quality was such that the judges had no easy task to place the ribbons. Fat cattle, sheep and hogs were in every way superior to the exhibit of previous years, and the display of poultry was unique.

CLYDESDALES.

The progress of the Clydesdale in Western Canada is phenomenal, and the exhibit here

finally went fourth because he did not supplement his good quality with the same amount of substance as did the three foregoing horses.

A past was considered when the high quality two-year-olds came into the ring. There were noted individuals among them for such young horses, and they had won enviable places at such shows as the International. Among the winners were Glendale Squire, Sinton's growthy stallion with straight action, and Fyvie Emperor, second at Chicago, also owned by Sinton. Gallant Buchlyvie, which took third place at Chicago for W. H. Bryce, Arcola, Sask., was also in the ring along with Charnock, the junior champion at Chicago in 1913, owned by Alex. Galbraith, of Brandon, and John Graham's Border Forager. Finally Gallant Buchlyvie won; Glendale Squire was second, Fyvie Emperor was third, Charnock was fourth and Border Forager fifth.

In yearling stallions, Regal Sensation, by Royal Salute, won first for Robt. Leckie, of Arcola, and won like honors at Chicago in 1913. Sinton's Heathcote, by Mendel, was second, while third prize went to Bryce on Doune Lodge Revelanta Again, by Revelanta's Heir. The stallion foal class was made up of a promising bunch, but an offspring of The Bruce was first in The Bruce of Hilcrest for R. H. Taber, of Condie, Sask. Golden Youth, a growthy youngster with good

limbs, by Baron Brougham, won the blue ribbon for Sinton, while Bryce was awarded the white ribbon on Doune Lodge Romeo, a smaller foal of the right kind.

Regal Sensation was awarded the grand championship ribbon, while reserve place went to The Bruce of Hilcrest.

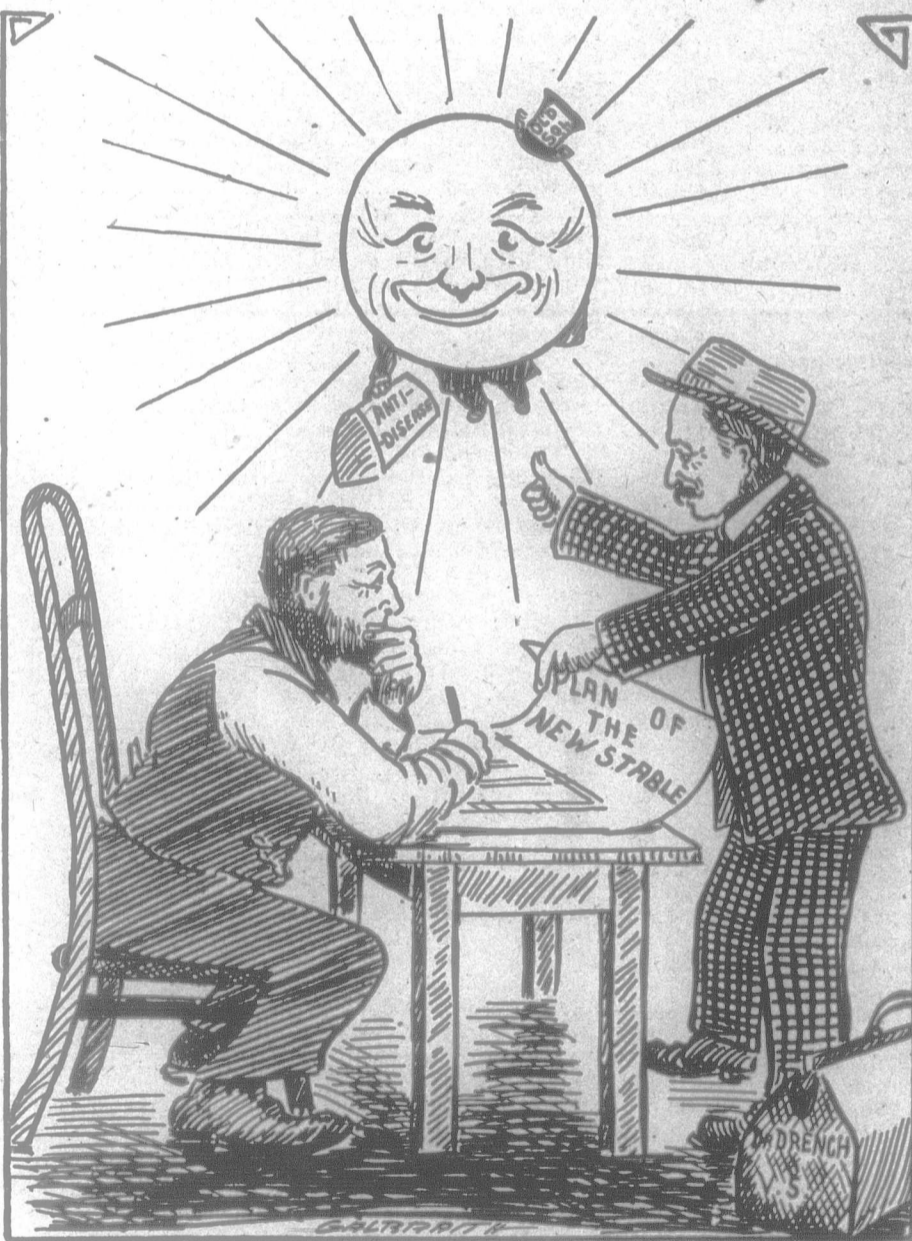
CANADIAN-BREDS.

The Canadian-bred stock featured in their numbers and quality. The line-ups were indeed pleasing, clearly indicating the extraordinary work being done by the home breeders. Hugh McLean won first on aged stallions on Prince Robert. Harry Martin won second on Grand Fashion, by Fashion's Pride, and D. McLean, Treherne, Man., captured third on Black's Headlight, by Black's Guide.

Hugh Gilmour's Bit of Fashion stood at the head of the three-year-olds, and next was Wyomyo's Heir, owned by Miller & Son, Oak River, Man. Watalanta's Heir took third for John Shields, Brandon, and fourth went to Hugh Gilmour on Marquis of Burnside. In two-year-olds Jas. Adamson, Gladstone, Man., took the premier prize on Royal Bob, and J. R. Scharf took second on Bobbie Concord. The yearling stallions were out to the extent of a score, and Bryce took first

and second on Doune Lodge Revelanta Again, and Doune Lodge Reciprocity. Sixteen foals came forward and Taber easily won first on The Bruce of Hilcrest, while Bryce's stable supplied the second in Doune Lodge Romeo. Standing next was Royal Carruchan for Wm. Grant, of Regina, and Sweetheart's, Pride for J. J. Miller, Myrtle, Man.

In females the prize list was composed largely of Canadian-bred fillies, but they were the right kind. In body they might be improved, but for quality of bone and snappy action they were hard to beat. Bryce's Doune Lodge Floradora landed at the head of the two-year-olds, and her nearest competitor was Craigie's Meral of Westholme, a property of the University of Sask. Hugh Gilmour's Baroness of Burnside made the contest interesting, but she finally took third place. First position in the yearling filly class went to Andrew Graham on Beautiful Countess, and second to Bryce on Doune Lodge Revelanta's Duchess. The third place was filled by Lady Grace, owned by Wm. Grant, and she was followed out of the ring by Andrew Graham's Countess May.



Let Him Into the Stable.

V. S.—Plan to let in old Dr. Sol as much as possible. His services come cheaper than mine.

brought out shows that quality of feet and underpinning with considerable substance is responsible for the ever growing favor which is being lavished on the breed. In the aged stallion class 18 came forward and furnished keen competition. In the conclusion, Prince Robert, the second-prize aged stallion at Chicago and owned by Hugh McLean, of Arcola, Sask., was left standing first. Geo. Gray, of Crandall, Man., had the second horse in Wyomyo, by Harvester, while third from the top was Evermaking, by Everlasting, the property of W. B. Gregg, of Maple Creek, Sask.

Ten stallions came forward in the three-year-old class, the best of which were worthy of a good place, while farther down the line the quality was less pronounced. Hail's Surprise, sired by Sam Black, and owned by R. Sinton, of Regina, was the best of the ten, but close to him came Norseman from the stable of John Graham, Carberry, Man. The latter horse was superior on top, but in action and at the ground he was excelled by Hail's Surprise. Paradox, by Castle Royal, secured the white ribbon for F. J. Hassard, of Deloraine, Man., and won on Clydesdale type and quality of limbs. Bit of Fashion, from Hugh Gilmour's stable, in Pasqua, Sask., gave his three betters considerable argument, but

G. H. McKenzie's Sale.

That it pays, when selecting a sire to head a herd, to buy the best was again demonstrated at the dispersion sale of G. H. McKenzie, of Thornhill, on Wednesday, March 11, when 18 daughters of the intensely bred bull, Sir Lyons Hengerveld Segis, ranging in age from a few months up to near 2 years sold for an average of \$199.61. Three of them, over one and under two years, averaged \$283.33, the highest price being \$270.00. Then others, under one year, averaged \$179.50, the highest price being \$245.00. It was a big sale with a big attendance of representative breeders of the popular black and white pail fillers. The cattle were brought out in the nicest kind of condition, and the prices obtained were very satisfactory. 42 head including all, brought a total of \$8,480. 40 females of all ages made an average of \$212.00; twenty-two over 2 years of age, averaging \$282.00. Following is a list of all selling for \$100.00 and over and their buyers.

Edgemont Ormsby Pietertje; R. Lawless, Thorold,	\$200.00
Edgemont Ormsby Segis; K. R. Marshall, Dunbarton,	175.00
Lady Favorit Posch; Wm. Elliott, Unionville,	270.00
Edgemont Beauty; J. McNaigh, Owen Sound,	225.00
Edgemont Beauty's Favorit; J. McNaigh, Edgemont Favorit Pietertje; R. Risebrough, Newtonbrook,	195.00
Edgemont Favorit Segis; Dr. Farewell, Oshawa,	245.00
Edgemont Favorit; P. Forester, Gormby, Daisy Calamity; Dr. Hess, La Fortune, Daisy Gerben Calamity; J. Riley, Ellesmere,	180.00
Edgemont Daisy Segis; E. A. Lloyd, Stouffville,	280.00
Aaggie Emily De Kol; P. J. Burton, Toitilla of Riverside; J. Riley, Amy Peep 3rd; Jos. Hood, Victoria Square,	140.00
Edgemont Toitilla; E. F. Osler, Bronte, Trenton Pride; R. Lawless,	245.00
Edgemont Pride; S. J. Prouse, Tillsonburg,	110.00
Edgemont Pride Segis; Dr. Farewell, Jesse Grace; F. Jackues, Thornhill, Countess Echo Verbelle; R. J. Campbell, Stouffville,	300.00
Countess Verbelle Segis; Wm. Elliott, ..	210.00
Ida Mechthilde De Kol; R. Risebrough, Edgemont Ida Mechthilde Segis; Dr. Farewell,	310.00
Ida Mechthilde Segis; E. A. Lloyd, ..	255.00
Edgemont Ida; H. Ketchen, Brooklin, Edgemont Ida Segis; Dr. Farewell, ..	130.00
Lady Floss Pietertje; F. H. Hatley, Milton,	225.00
Edgemont Floss Pietertje; Mr. Bales, Armitage,	270.00
Edgemont Floss; J. Riley,	200.00
Edgemont Floss Segis, E. F. Osler, ..	270.00
Glenside Laura; H. Ketchen,	215.00
Edgemont Laura Hengerveld Segis; R. H. Davies, Toronto,	290.00
Edgemont Laura Segis; J. S. Walker, Aurora,	345.00
Edgemont Nell; R. H. Davies,	140.00
Edgemont Nell 2nd; F. Yeoman, Agincourt,	260.00
Mildred Norine Wopke; F. Yeoman, ..	170.00
Daisy C. Tiranias; G. Patterson, Agincourt,	200.00
Ruby Posch Calamity; Mr. Boake, Downsview,	155.00
Sir Lyons Segis Calamity; F. Garbutt, Lambton Mills,	100.00
Edgemont Segis; J. McNaigh,	185.00

On Thursday March 19th, and Friday, March 20th, there is to be held in Toronto, a meeting of all the various farmer's associations in Ontario with a view to amalgamation under the name of the United Farmers of Ontario. The Dominion Grange is at the head of the movement, and J. J. Morrison of Arthur, is secretary. A program filling the two days with an evening session on the first day has been arranged and prominent speakers from the various Farmer's Clubs, Fruit Growers' Associations, Poultry Circles, Co-operative Telephone Companies, Co-operative Supply Companies, the Canadian Council of Agriculture and different farmer's organizations from the prairie provinces will take part. A cordial invitation is extended by the secretary of the Grange to all those interested in the organization of farmer's co-operative or other societies to attend.

The cost of food appears to have no appreciable effect upon the boom in the eating-house business, which is making a run with the moving picture shows.

Norfolk Holstein Sale.

If the success of the First Annual Sale of the Norfolk Holstein-Friesian Club, held in the town of Simcoe, on Tuesday, March 10th, is any criterion to go by, the future sales of this well organized club are an assured success. The sale was held in a large tent in which comfortable seats were erected, evidently the first thought of the management being the comfort of the public attending. The management of the sale throughout was of a character calculated to gain public confidence, everything being clean, open, and above board, and the majority of the cattle offered were up to a high standard, both in the matter of individual excellence and official production, among them being such great cows as Daisy Tensen Posch, with a senior three-year-old R.O.P. record of 19,611 lbs. milk and 747 lbs. butter. She went to the bid of J. Alex. Wallace, of Simcoe, for \$500.00. Netherland Favorit, with a senior two-year-old R.O.M. record of 21.65 lbs. in 7 days, 42/70 in 14 days and 89.65 in 30 days, went to A. E. Hulet, of Norwich, for \$445.00. Several others were up to an equally high standard. Much attractive breeding and many high official records were in evidence all through the catalogue. The 43 sold before the writer had to leave to catch the train, made an average of \$194.50, the highest price was \$500.00 for the cow mentioned above. Following are those selling for \$100.00 and over.

Netherland Favorit; A. E. Hulet, Norwich, Elmdale Lola; A. E. Hulet,	\$445
Eileen Eunice Favorit; H. Clare Norwich, Bessie Favorit; W. C. Hambly, Norwich, ..	145
Netherland Beauty De Kol; A. Moore, Waterford,	285
Lily Paulin Posch; A. E. Hulet, Norwich, Nober Beauty; S. A. Best Cayuga,	255
Abby Hengerveld De Kol; A. E. Hulet, ..	225
Winnie Win's Gem 3rd; S. A. Best, ..	180
Madora De Kol 3rd; W. E. Mason, Tyrrell, Sevangeline Calamity Clay; F. Hamilton, Niagara Falls,	170
Lady Wayne Schulling; A. E. Hulet,	170
Lady Keyes Mercena; A. E. Hulet,	170
Princess Abbekerk Mercena; E. B. Ryan, Courtland,	185
Olive Starlight Pietertje; P. Fick, Port Rowan,	120
Canary Houwtje; L. A. Everitt, Vittoria Mercena De Kol Calamity; F. Hamilton, Niagara Falls,	165
Tidy De Kol Calamity; F. Hamilton,	250
Abbekerk Pauline De Kol; F. Hamilton, Countess Daisy Barrington; A. E. Hulet, ..	135
Flora Staple; J. Alex. Wallace,	185
Mercedes Lady Mechthilde; W. H. Cherry, Garnet,	205
Daisy Tensen Posch; J. A. Wallace,	330
Cobalt Tensen; A. E. Hulet,	250
Marie Tensen; A. E. Hulet,	500
Gano's Calamity Posch; R. Lawless, Thorold,	300
Maud Abbekerk Posch; L. Lipsitt, Straffordville,	180
Lady Alice Renton; W. H. Mason, Tyrrell, Grace De Kol Abbekerk; G. Hyde, Tyrrell, Princess Queenman Posch; R. J. Kelly, Tillsonburg,	130
Sache Queen Posch; E. Hydel,	265
Irena De Kol; F. Hamilton,	180
Annandale Snowball; R. J. Kelly,	125
Polly De Kol Queen; R. Lawless,	120
Countess Cherryvale Posch; L. Lipsitt, ..	145
Dulcie De Kol Gano; W. R. Boyle, Troy, ..	120
Eunice Crena Clay; A. J. C. Dedrick, Port Rowan,	120

Prince Edward Island Notes.

Editor "The Farmer's Advocate":
With the customary spectacular ceremony and favored with splendid weather, the legislature of Prince Edward Island was opened on March 11th. Judging by the attendance the general public was very much interested. Four members were absent, the Premier, Hon. John Mathieson and Hon. John MacLean who are at Ottawa in connection with the Representation Case, Hon. J. A. Macdonald of Cardigan and Professor McPhail of Queen's University. The speech from the Throne referred principally to the development in agriculture, education, in fur farming, in the oyster fisheries, to the Representation question and to the anniversary of the first Confederation conference. It also foreshadowed legislation of considerable importance. The usual committees were appointed after which the House adjourned till Thursday.

This, however, was not the only attraction in the capital on that date. The Central Seed Fair was being held as well as a Household Science exhibit. Both of these were well patronized and the educational meetings held in connection with them well attended. This is the last of our Island Seed Fairs for this year. Four have already been held. The Provincial at Summerside was the only one that did not have good roads

and favorable weather. The attendance at these has been much larger than ever before and they have become a regular part of our Island agricultural education.

The next attraction for farmers is the Horse Show and auction sale, which takes place in Charlottetown, March 25th and 26th. At the present time, it looks as if it would be well patronized. Every Island man is a lover of good horses, and many enquiries are being received.

The long Course in Agriculture is progressing favorably, and the Second Year men students of Prince of Wales' College are being given practical work in live stock judging, in horticulture and in poultry husbandry.

The chief extension work at present being done is in connection with poultry. The first egg circle was organized last March and there are now 39 in existence, twelve of which were organized by John Marcellus, of Dundela, Ontario, who has been here for the past two weeks assisting T. A. Benson, the Representative of the Poultry Division. There are requests for organization from 41 different sections, and W. A. Brown, Chief of the Poultry Division is expected to assist with the work. A conference of egg-circle managers is called for the 18th, when it is likely a provincial organization will be formed. F. R.

Amendments Affecting Maple Products and Honey.

An Act to amend the Adulteration Act was recently brought before the House of Commons at Ottawa, and is now being considered. Amongst the articles included in the amendment is one dealing with the manufacture and sale of maple syrup and maple sugar. According to this act it is to be illegal to manufacture for sale, keep for sale or offer or expose for sale as maple sugar any sugar which is not pure maple sugar, nor as maple syrup any syrup which is not pure maple syrup and any maple syrup or maple sugar which is not up to the standard prescribed, which states that maple sugar shall be entirely the solid product resulting from the evaporation of maple sap or of maple syrup and contain not more than ten per cent. of water and yield not less than six-tenths of one per cent. of ash reckoned on the dry matter of the sugar when incinerated in such a way as to assure the earth being present as salts and not as oxides and not less than twelve one-hundredths of one per cent. of ash insoluble in water and yielding a return not less than one and seven-tenths when worked by the Canadian method nor less than one and two-tenths when worked by the Winton method.

Maple syrup shall be syrup made by the evaporation of maple sap or by the solution of maple concrete in water and contain not more than 35 per cent. water. The dry substance of maple syrup shall meet all the above standards for maple sugar.

The use of the word "maple" shall not be made either alone or in combination with any other word or words on the label or other mark on the package containing any article of food or any article of food itself which is or shall resemble maple sugar or maple syrup which is not pure maple sugar or pure maple syrup, and any article of food labelled or marked in violation of this subsection shall be deemed to be adulterated within the meaning of the Act.

This is the portion of the Act which makers of maple syrup and maple sugar have been asking for. Maple as we understand it, when this act comes into force if it passes the House of Commons, shall not be used on anything but the pure product of the maple tree.

Of interest to bee men will be the amendment which refers to honey, and which states that the word "honey" shall not be used either alone or in combination with any other word or words on the label or other mark on any package containing any article of food which is or which resembles honey, and which is not pure honey made by bees, and any article of food labelled or marked in violation of this act shall be deemed adulterated. Of course, the provisions of this Act do not apply to any syrup or compound sold for medical purposes.

Cutting Down Naval Outlays.

Crushed under their war debt and naval expenditures, particularly, which have swollen from £4,485,000 in 1901, to £9,461,000 in 1912, the people of Japan are coming to their senses, and revolting against these burdens.

The Budget Committee of the Upper House of Parliament have cut the naval estimates by the sum of \$20,000,000. This proposal is in addition to the \$15,000,000 curtailment recently passed by the Lower House.

Agricultural Legislation in Quebec Last Session.

CO-OPERATIVE AGRICULTURAL SOCIETIES
The law relating to such societies has been amended by inserting therein a new article as follows:

The minister may at any time have the books and accounts of any co-operative agricultural society examined by one of his employees.

"The officers of any such society shall, when required, submit such books and accounts for examination, and shall, to the best of their knowledge, make true answer to all questions which may be put to them regarding the same, or regarding the financial condition of the society."

At the International Agricultural Congress, held last year at Gand, a resolution was adopted recommending the examination by the state of the books and accounts of co-operative associations.

The number of such associations is increasing in the province. The most important ones are the Cheesemakers' Co-operative Association and the Tobacco Growers' Association, of the Yamaska Valley. Last year, the Cheesemakers' Association sold butter and cheese for more than \$1,300,000. Its capital exceeds \$10,000 and its reserve fund is \$5,800. It pays this year a dividend of 6 per cent. to the shareholders. The capital of the Tobacco Growers' Society is \$35,800 and its reserve fund \$16,000. It paid a dividend of 6 per cent. last May.

PROTECTION OF PLANTS FROM DESTRUCTIVE INSECTS AND FUNGUS DISEASES.

The new Act adopted last session enacts as follows:

It is forbidden to import into the province any plant or part of a plant attacked by destructive insects or the plant diseases hereinbelow specified. The entomologist, or his assistant or representative, has the right to enter any nursery, orchard, or other premises wherein there is reason to believe that there are plants of any kind. No one shall keep in his possession, nor offer for sale plants or parts of plants which may be infested by any of the destructive insects or plants hereinafter specified. The owner or occupant of any lot of land where the existence of any of the said insects or diseases may be ascertained or suspected, must inform the minister thereof. The instructions given by the entomologist for the treatment or destruction of any plant infested by destructive insects or plant diseases must be carried out by the owners or occupants of nurseries or orchards.

Among the destructive insects and plant diseases to which the Act shall apply the following insects and diseases are expressly included: 1. The San Jose Scale, 2. The Brown Tail Moth, 3. The Gipsy Moth, 4. The Woolly Aphis, 5. The Black Knot, 6. Apple Canker, 7. Potato Canker.

When any one of the destructive insects or plants exists in a nursery, no plant or part of a plant can be removed or transferred elsewhere until the entomologist has given the owner a certificate stating that the instructions he has given for the treatment or destruction of the plants infested have been followed to such an extent as he deems necessary.

Every contravention of the Act renders the person guilty of the same liable to a fine not exceeding one hundred dollars.

LOANS TO FARMERS' CLUBS OR OTHER AGRICULTURAL ASSOCIATIONS.

A new Act enables the Minister of Agriculture to make, out of the appropriations, loans to an agricultural society or farmer's club or other agricultural associations for the purchase of registered live stock or for any other agricultural purpose.

There are now 642 farmers' clubs in the province and almost everyone of them owns registered live stock. Last year they spent \$38,492, 10 for the purchase and maintenance of such live stock.

Loans have been made to breeding syndicates, some of them owning registered Belgian draft horses. A few agricultural societies have also bought some. This breed of horses is very popular and their crossing with the Canadian mares has given most satisfactory results. There are now hundreds and hundreds of half-blood Belgian horses and fillies for which the farmers obtain or refuse very good prices.

COW-TESTING ASSOCIATIONS.

A law has been enacted in order to authorize farmer's clubs to form cow-testing associations among their members managed by the directors of the clubs.

A club may devote its funds, wholly or in part, to defray the expenses of such testing, with the consent of the minister. It may also give prizes to members of the association for herds of cows submitted to the testing by the society.

Experiments with Farm Crops in 1914.

The members of the Ontario Agricultural and Experimental Union are pleased to state that for 1914 they are prepared to distribute into every township of Ontario material of high quality for experiments with grains, fodder crops, roots, grasses, clovers and alfalfas, as follows:

No.	Experiments.	Plots.
1	Testing two varieties of oats.....	2
2a	Testing O. A. C. No 21 barley and emmer.	2
2b	Testing two varieties of two-rowed barley	2
3	Testing two varieties of hulless barley.....	2
4	Testing two varieties of spring wheat.....	2
5	Testing two varieties of buckwheat.....	2
6	Testing two varieties of field peas.....	2
7	Testing two varieties of spring rye.....	2
8	Testing two varieties of soy, soja, or Japanese beans.....	2
9	Testing three varieties of husking corn....	3
10	Testing three varieties of mangels.....	3
11	Testing two varieties of sugar beets for feeding purposes.....	2
12	Testing three varieties of Swedish turnips	3
13	Testing two varieties of fall turnips.....	2
14	Testing two varieties of carrots.....	2
15	Testing three varieties of fodder and silage corn.....	3
16	Testing three varieties of millet.....	3
17	Testing two varieties of sorghum.....	2
18	Testing grass peas and two varieties of vetches.....	3
19	Testing rape, kale and field cabbage.....	3
20	Testing three varieties of clover.....	3
21	Testing two varieties of alfalfa.....	2
22	Testing four varieties of grasses.....	4
23	Testing three varieties of field beans.....	3
24	Testing two varieties of sweet corn.....	2
25	Testing two varieties of potatoes.....	2
26	Testing three grain mixtures for grain production.....	3
27	Testing three grain mixtures for fodder production.....	3

Each plot is to be two rods long by one rod wide, except No. 28, which is to be one rod square.

Any person in Ontario may choose any one of the experiments for 1914 and apply for the same. The material will be furnished in the order in which the applications are received, while the supply lasts. It might be well for each applicant to make a second choice, for fear the first could not be granted. All material will be furnished entirely free of charge to each applicant, and the produce will, of course, become the property of the person who conducts the experiment. Each person applying for an experiment should write his name and address very carefully, and should give the name of the county in which he lives.

C. A. ZAVITZ, Director.

Ontario Agricultural College, Guelph.

The Evolution of Commerce.

A recent issue of the Canadian Journal of Commerce places the total value of the World's commerce at the enormous figure of \$40,600,000,000. This stupendous amount of trafficking is carried on through the assistance of 55,802 sailing ships, 47,714 steamers and 625,000 miles of railroads. This mileage of trunk and branch roads is enough to girdle the earth twenty-five times, and we are sometimes prone to stand aghast at the monstrous locomotives and elaborate coaches which are "fearfully and wonderfully made" and think what a genius some man must have been who had the audacity to invent such a thing. But no one man did it at all. With steamships the semi-nude barbarian is responsible in part for their development. He it was who tied together a bunch of twigs and got it to float, or gouged out a log and with a flattened sapling propelled it through the water. Since that time a pole has been added and a small sheet, a nail here and a bolt there, an extra layer of wood or sheet of steel, a crude engine and a wheel, a larger engine and a screw; each man has added his small quota to the invention of the barbarian until we have palatial steamship which will plow across the Atlantic in less than five days, bearing in luxury almost five thousand human lives and thousands of dollars' worth of freight.

Railroads were not always thus. The gigantic locomotive with its string of one hundred freight cars is an evolution of the wagon on the ordinary road. As early as the middle of the sixteenth century tramways were in use in the mineral districts of England around Newcastle for the conveyance of coal from the pits to the river Tyne for shipment. In 1676 Lord Keeper North writes, "The manner of carriage is by laying rails of timber, exactly straight and parallel, and bulky carts are made with four rowlets fitting these rails, whereby the carriage is so easy that one horse will draw down four or five cauldrons of coal" (from 10.6 to 13.2 tons). Iron sheathing was later added to prolong the life of the rail; but this produced considerable wear on the rollers of the wagon, so iron wheels were introduced in the 18th century. In the intervening period iron rails of all descriptions were invented

and some had a flange to keep the flat wheels on the track, which principle has been applied to the wheel instead of the track. The Stockton and Darlington railway was authorized by parliament in 1821 and animal power was proposed, but on the advice of Stephenson, the engineer, steam-engines were adopted. At its opening on the 27th of September, 1825, a train of thirty-four vehicles, making a gross load of about 90 tons, was drawn by one engine, driven by Stephenson with a signalman on horseback in advance.

From the time of the first experiment development has been phenomenal. Power has been added and speed attained until the gigantic locomotives trailing an enormous tonnage now fly over 625,000 miles of steel rails.

The Sprucedale Stock Farm Sale.

The sale conducted by A. Watson & Sons, and C. F. Jackson, at the "Sprucedale" Stock Farm, St. Thomas, on Thursday, March 12th, was satisfactory to all concerned. A large number of stock of all breeds was offered and eagerly picked up by breeders and feeders. Clydesdales, Percherons, Holsteins and feeders in all breeds of cattle were offered as well as sheep and swine. The day was fine, but a cold, chilly wind made it rather unpleasant for those standing long in one position. Among the large crowd present were those who came particularly interested in one line of stock, and they were not absent when that particular breed was being sold. In the horses Lady Grey, a show-ring mare, sold for \$800, while other prices received ranged from \$150 to \$184. Time did not permit the representative to remain till the conclusion of the sale, but among the pure-breds sold were some high-class Holsteins that had not been fitted for show or sale, but were brought out in ordinary milking condition.

The names of the Holsteins selling for \$100 or over and their buyers are given below:

Susie of Pleasant Valley; R. S. McVitty,	
Munsey.....	\$180.00
Beauty of Elgin County; R. S. McVitty...	160.00
Fanny Bly; R. S. McVitty.....	225.00
Queen May Lass; E. Siple, St. Thomas...	170.00
Lady Bedella; C. Butler, Middlemarsh.....	105.00
Beauty of Hengerveld; H. Johnson, Union.	120.00
Sprucedale; C. Butler.....	100.00

Farmers and Dairymen of New Brunswick meet.

With an attendance of over 200 delegates from the 130 agricultural societies of the Province and many other interested farmers, the 38th annual meeting of the venerable association was pronounced by those in attendance as one of the very best in its history.

The opening session was held in the Fredericton City Council Chamber, where the welcome of the city was extended to the Association by Mayor Hooper.

President W. H. Moore in his opening address emphasized the necessity of our farmers giving more attention to the quality of their products, and to the construction and maintenance of better highways. He believes New Brunswick farmers might do much more than at present to supply the demand for pure seeds. He commended the educational efforts of both Dominion and Provincial Departments of Agriculture, and urged his hearers to co-operate in the efforts of the governments. He gave it as his opinion that the rural clergy might do much both for agriculture and their churches by giving intelligent sympathy and assistance to the farmers of their congregations, and instanced the work of Rev. T. Hunter Boyd, lately of Waweig, N. B., and Rev. Father Burke, of Prince Edward Island, as shining examples.

Treasurer H. H. Smith responded to the Mayor's address of welcome. He believes there is no better agricultural land in America than in New Brunswick, and he proves from practical experience there is no reason why her farmers should not achieve pronounced financial success.

Hon. James A. Murray, the new Minister of Agriculture, made an excellent impression and spoke eloquently and optimistically. He was, he said, determined to do everything possible to attract the best class of people to take up the unused though excellent farming areas of the province, and his department would increase its efforts to do all it legitimately could to aid in agricultural development. Many enquiries are now coming from the West as to the opportunities in this province, and as well as the influx of strangers he expects to see some of our own people return to take advantage of the stir that is now being felt. The farmer's outlook here is excellent, with his fertile lands and a market demand far in excess of his present ability to supply it. Nearly every line of live stock and farm products is being imported. His Department, with the splendid assistance given by the Federal Department, will do all it can to spread the best information to be obtained upon agricultural subjects. In addition to the services of the experts the Department is this year opening schools at Woodstock and Sussex for technical instruction,

and attention is being given to the subject in the Normal School, and this year there will be a summer school for teachers at Woodstock. He also hopes in time to see technical agricultural schools in every county in the province. The Farming Special Train run last year over the lines of the C. P. R. was so successful that a similar train will this year be run over the I. C. R. In horticulture work will be actively prosecuted. One hundred thousand apple trees have been set out in the province during the last four years, and this rate of planting will, at least, be maintained. He has in view special work for the promotion of dairying and the live-stock industry generally, including poultry and bees.

Referring to the embargo placed on New Brunswick potatoes, he said he would not question the motive of the United States authorities even though they did show samples from New Brunswick affected with the scab and those from Maine free from it. He could only say, that, from the information he had obtained, Maine potatoes were worse affected than our own, steps have been taken to exclude Maine potatoes from the province, and vigorous efforts will be taken to stamp out the pest.

Mr. J. B. Daggett, Deputy Minister of Agriculture gave some facts as to the tremendous importations of foodstuffs into the province. He thought our farmers should be getting the money sent out for these importations, and instanced some of the prices paid; quoting 18½ cents per pound for ribs and loins of beef, in a wholesale way paid by a Fredericton dealer recently.

Referring to the powdery scab on potatoes, to which the United States has kindly called our attention, he thought it was very fortunate that we have been made to realize the seriousness of this disease on its first introduction to the province. The Department has put on a strong force of inspectors and will endeavor to isolate the disease. It is a fact, though somewhat remarkable, that most of the infection found in this province has been traced to seed coming from the State of Maine. Steps are being taken to prevent a recurrence of infection from this source, and he hopes it will be possible, with the co-operation of the farmers in planting only clean seed and on clean ground, to eventually stamp out the disease.

Andrew Elliott, Galt, Ontario, took up the matter of judging, feeding and caring for dairy cattle, with specimens of Shorthorns, Ayrshire, and Holstein cows before the meeting, and followed this with a talk on beef cattle, using some steers from the Dominion Experimental Station for object lessons.

T. O. Clarke, recently appointed to work for the development of sheep raising in the Maritime Provinces by the Dominion Government, gave a short address in which he urged the profits to be made from keeping good sheep. In England where the acreage is about equal to that of the Maritime Provinces, over 40,000,000 sheep are kept, while in all Canada there are only 2,000,000. Our climate here is very similar to that of England for sheep raising purposes, and we import both wool and mutton. Our annual importation of wool of such quality as we can grow here is about 5,000,000 pounds. Sheep are not only useful as a market commodity, but they enrich the soil and destroy weeds.

Alfalfa growing was discussed by Andrew Elliott, J. D. McKenna, Sussex; J. D. Daggett, and others. Mr. Elliott told of the essentials to success in alfalfa growing, and went on to say that for average farm conditions where it is desired to take full advantage of every crop in the rotation; he preferred clover to alfalfa, as it is

more easily grown and after growing a crop of fodder adds lots of fertility to the soil for the following crops. Alfalfa cannot be used so well in this way, as it is difficult and expensive to get it well established. He admitted the best field of alfalfa he had ever seen was in New Brunswick.

J. D. McKenna, Sussex, differed with Mr. Elliott as to the comparative value of clover and alfalfa, maintaining that the latter is incomparably a greater food producer. J. D. Seeley, of Haverlock, whose field Mr. Elliott admitted was the best he had ever seen has been able to produce seven tons of cured alfalfa hay per acre in one year in three cuttings. The hay in comparison with the price of other foods on the market has a feeding value of \$20.00 per ton—equal to \$140.00 per acre; is there any fodder crop that can beat that or even approximate it? He believes it will pay every farmer to learn how to establish and maintain a good stand of alfalfa.

Mr. McKenna deplored Mr. Elliott's opposition to alfalfa for the success of Mr. Seeley, and other growers in New Brunswick shows that the general introduction of this plant on soil adapted to it will mean millions of dollars to the farmers of the province.

Chas. W. Bell, St. John, N. B., led the discussion and demonstration on horses. A Clydesdale stallion and a Percheron stallion owned by H. C. Jewett, Fredericton, were brought before the convention, and a pure-bred Clydesdale mare, five Clydesdale grade mares and two Percheron grade mares, as well as some heavy geldings, were shown from the Dominion Experimental Station. Only heavy horses were discussed, and Mr. Bell strongly urged the farmers instead of aiming to produce a general-purpose horse to produce a heavy draft. There need be little fear of getting horses too heavy for the market or for farm work. There will always be enough undersized ones to fill the demand for the smaller horse. Quality, of course, must not be overlooked, size with quality is wanted and the market will pay the man who has it to sell, a profitable price.

Hon. J. A. Murray, Minister of Agriculture, held a conference with the Agricultural Society delegates to discuss the matter of live stock improvement. Nearly every delegate who spoke urged that there should be some restriction placed upon the running at large of scrub bulls. A few urged the encouragement of community breeding, i. e., that all the farmers in a community agree to use only one breed of cattle, sheep and swine, and co-operate in the use of the best males procurable. Some suggested the appointment of special officers by the Department to assist agricultural societies and all who wanted such assistance in the selection and purchase of good breeding animals. A few urged importations by the Department. Mr. Daggett for the Department announced that a live-stock expert, W. D. Ford, of Macdonald College, has been engaged to assist in the purchase, distribution and exchange of breeding stock, and will shortly take up his duties.

H. B. Durost, of the Provincial Agricultural Department gave an interesting address on bees and bee-keeping. W. W. Baird, Superintendent of the Dominion Experimental Farm, Napan, N. S., and Andrew Elliott discussed the question of soil cultivation. Mr. Baird took up the composition and peculiarities of different soils, and outlined methods of handling to get the best results. He urged more intensive work in crop growing, and less skimming over large areas for meagre returns.

Artificial fertilizer came in for vigorous dis-

ussion. A. R. Wetmore, Secretary of the Clifton Agricultural Society, opened the subject and told of the work done by his society for the last twenty years in importing chemical ingredients and assisting in home mixing these. Members of the society are well satisfied with the results obtained from this method, as they saved from 25 to 35 per cent. of the cost and got uniformly better results than from using ready-mixed fertilizers. This year his society will be able to supply chemicals to make a ton of 4-8-10 mixture for approximately \$27.00. This ton will contain 80 lbs. of amonia, 160 lbs. phosphoric acid, and 200 lbs. of potash.

The place of corn and ensilage on New Brunswick farms was discussed by W. W. Hubbard, Superintendent of the Dominion Experimental Station. Where soil and climate are adapted to corn, which would be on at least 25 per cent. of the agricultural land of Central and Southern New Brunswick, he stated that the most profit from live stock is not possible without the corn crop and the silo, but in no case will he advise any farmer to abandon the turnip crop for corn to secure succulent material. On the Experimental Station farm at Fredericton the past season there were 12½ acres of corn and 5 acres of turnips. The former gave 9 tons to the acre, the latter 20 tons. Valuing their food constituents at similar prices on the German valuation, the corn was worth \$36.00 per acre against the turnips \$52.00. In neither case was a maximum crop obtained. Under favorable conditions from 12 to 14 tons of well-matured corn can usually be obtained, and from 24 to 28 tons of turnips. He exhibited the sweet, sound ensilage from the farm crop last season, though on account of the very late, cold season the corn was not nearly so mature as was desired or possible in good years.

The value of field crop competitions was discussed by N. W. Eveleigh, Donald Innes, and W. H. Moore. Short address were also given on this subject and seed selection by S. M. Fiske, and S. L. Peters, and these questions as well as the eradication of weeds were generally discussed by the meeting. All growers were strongly urged to use only government inspected No. 1 seed when buying, and to take every pain to select their own best seed and thoroughly cleanse it. Mr. Peters was especially emphatic as to the better results that can be obtained by selecting home-grown seed of all kinds rather than buying from elsewhere.

T. C. Nunnick, Ottawa, Agriculturist of the Conservation Commission, gave an interesting address illustrated by lantern slides. He showed wasteful and economical practices, handy contrivance, and many matters affecting rural life.

The officers elected are as follows: President, Thomas Strong, Lindsay; Vice-Pres., J. F. Roach, Sussex; Recording Secretary, A. R. Wetmore, Clifton; Corresponding Secretary, M. A. Scovil, Gagetown; Treasurer, H. H. Smith, Hoyt Station.

A joint deputation of the Waterways Union and the Radial Railways Unions will be heard by the Dominion Government, on Thursday, March 26th. A monster deputation is going to Ottawa on the 24th and 25th, with a view to laying the facts concerning the deepening of Canada's natural waterways and the importance of Hydro radials before the Government. This movement was decided upon at a large meeting of those interested in Hydro Electric radials held in London and reported in our last week's issue.

Markets

Toronto.

Receipts at the Union Stock-yards, West Toronto, on Monday, March 16th, numbered 69 cars, comprising 1,251 cattle, 1,155 hogs, 70 sheep, and 65 calves. Trade in cattle early in the day opened up brisk, but prices were about the same as at the close of last week. Choice steers sold at \$8 to \$8.25; good steers and heifers, \$7.40 to \$7.80; medium, \$7 to \$7.25; common, \$6.50 to \$6.75; cows, \$3.75 to \$7; bulls, \$6 to \$7.25; feeders, \$6.25 to \$7.15; stockers, \$5.50 to \$6; milkers, \$60 to \$100, two selling at the letter price; calves, \$7.50 to \$11.50; sheep, \$6.50 to \$7; rams, \$4.50 to \$6.25; lambs, \$8 to \$9.50. There were 942 Alberta hogs on the market. Selects, fed and watered, \$9.25; \$8.90 f. o. b. cars, and \$9.50 weighed 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	2	243	245
Cattle	20	2,000	2,020
Hogs	81	8,837	8,918
Sheep	—	359	359
Calves	—	448	448
Horses	—	165	165

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

	City.	Union.	Total.
Cars	10	342	352
Cattle	105	4,747	4,852
Hogs	80	6,977	7,057
Sheep	100	835	935
Calves	46	458	504
Horses	—	145	145

The combined receipts of live stock at the two markets for the past week show a decrease of 107 carloads, 2,832 cattle, 576 sheep and lambs, and 56 calves; but an increase of 1,861 hogs and 20 horses, compared with the corresponding week of 1913.

Receipts of all classes of live stock during the past week were light, and as a rule there was little change in the quotations. In fact, if you printed the previous week's report, you would find there was little difference in the infor-

mation given. Receipts, commencing with Monday last, were light, and each succeeding day was the same, but in the cattle classes the supply was quite equal to the demand. Receipts of sheep, lambs and calves, were light, and prices firm, but unchanged. Hogs were a little more plentiful, as there have been several large consignments from Manitoba. One firm, The Fowler's Canadian, of Hamilton, received ten carloads at one shipment.

Butchers'.—Choice steers, 1,250 to 1,350 lbs., sold at \$8 to \$9.35, but only about four carloads during the week brought these figures; good steers and heifers, \$7.75 to \$8; medium, \$7.30 to \$7.60; common, \$6.75 to \$7.10; choice cows, \$6.75 to \$7; good cows, \$6 to \$7.50; medium cows, \$5.75 to \$6; canners and cutters, \$3.75 to \$4.75; choice bulls, \$6.75 to \$7.25; medium bulls, \$6 to \$6.50.

Stockers and Feeders.—Receipts in these two classes were exceedingly quiet, but equal to the demand. Prices for the best class of feeders, weighing from 800 to 900 lbs., held firm, but the commoner grades were easier in price. Best steers sold at \$7 to \$7.25; good at \$6.50 to \$6.75; stockers ranged from \$4.50 to \$6.

Milkers and Springers.—The demand was not nearly as strong for milkers and springers, excepting for the choice quality. Prices ranged from \$50 to \$95 each, the bulk going at \$60 to \$75.

Veal Calves.—Receipts of veal calves coming forward were light, and prices were unchanged. Choice veal calves were strong, at \$10 to \$11 each; good at \$9 to \$10; medium, \$7.50 to \$8.50; common, \$5.60 to \$7.

Sheep and Lambs.—Market firm and unchanged. Sheep, ewes, \$6.50 to \$7; heavy ewes \$5.75 to \$6.25; rams, \$5.25 to \$6.25; heavy lambs, \$8 to \$8.75; light, handy lambs, \$9 to \$9.75.

Hogs.—Selected hogs, fed and watered, sold at \$9.25 to \$9.35; and \$8.90 to \$9 f. o. b. cars, and \$9.50 to \$9.60 weighed off cars.

TORONTO HORSE MARKET.

Receipts of horses at the Union yards were fairly liberal, 165, or an increase of 20 for the same week of 1913. Trade was better than for some weeks, four carloads being sold and shipped to Ottawa, Montreal, St. John's, Newfoundland, and Saskatchewan, besides several other small lots in different parts of Ontario. The local city trade was also quite active. Prices ranged as follows:

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Rye.—
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Corn.—
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Barley,
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Manitoba

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per cas

THE ROYAL BANK OF CANADA

Capital Authorized - \$ 25,000,000
 Capital Paid Up - 11,560,000
 Reserve Funds - 13,000,000
 Total Assets - 130,000,000

HEAD OFFICE: MONTREAL
 Branches throughout every Province of the Dominion of Canada.

Accounts of Farmers invited.

Sale Notes Collected.

Savings Department at all Branches.

Drafters, \$200 to \$250; general-purpose horses, \$150 to \$200; expressors, \$150 to \$200; serviceably sound, \$45 to \$90.

BREADSTUFFS.

Wheat.—Ontario, No. 2 red, 97c. to 98c., outside; \$1, track, Toronto; Manitoba, No. 1 northern, 99½c., track, bay points; No. 2 northern, 98c.; more at Goderich.

Oats.—New No. 2 white, 37c. to 38c., outside; 40c. to 40½c., Toronto; Manitoba, No. 2, 42c.; No. 3, 41c., lake ports.

Peas.—No. 2, 98c. to \$1, outside.
 Rye.—Outside, 82c. to 83c.
 Buckwheat.—78c. to 75c., outside.
 Corn.—American, No. 2 yellow, 69c., all rail, track, Toronto.

Barley.—For malting, 54c. to 55c.; for feed, 43c. to 45c., outside.

Flour.—Ontario winter-wheat flour, 90-per-cent. patents, \$3.55, bulk, seaboard. Manitoba flour—Prices at Toronto, are: First patent, \$5.30; second patents, \$4.80; in cotton, 10c. more; strong bakers', \$4.60 in jute.

HAY AND MILLFEED.

Hay.—Baled, car lots, track, Toronto, No. 1, \$15; No. 2, \$13.

Straw.—Baled, car lots, track, Toronto, \$8 to \$9.

Bran.—Manitoba, \$22.50 to \$23.50, in bags, track, Toronto; shorts, \$23 to \$25; Ontario bran, \$23, in bags; shorts, \$24; middlings, \$26.

COUNTRY PRODUCE.

Butter.—Receipts have been moderately large, causing prices to rule about steady. Creamery pound rolls, 32c. to 34c.; creamery solids, 28c. to 30c.; separator dairy, 27c. to 28c.; store lots, 24c. to 25c.

Cheese.—New, large, 14½c.; twins, 15c.; old, large, 15c.; twins, 15½c.

Honey.—Extracted, 9c. to 10c.; combs, per dozen, \$2.50 to \$3.

Potatoes.—Car lots of Ontario, 75c. to 80, per bag; New Brunswick Delawares, 85c. to 90c., track, Toronto.

Beans.—Imported, hand-picked, \$2.25; Canadian, hand-picked, \$2.25; primes, \$2.

TORONTO SEED MARKET.

Alsike, No. 1, per bushel, \$8.50 to \$9; alsike, No. 2, per bushel, \$7.50; alsike, No. 3, per bushel, \$6 to \$7; timothy, No. 1, per bushel, \$2.50 to \$3; timothy, No. 2, per bushel, \$2 to \$2.25; red clover, per bushel, \$3 to \$3.50; red clover, No. 2, \$7.50 to \$8.

HIDES AND SKINS.

No. 1 inspected steers and cows, 13c.; No. 2 inspected steers and cows, 12c.; No. 3 inspected steers, cows and bulls, 11c.; city hides, flat 13c.; country hides, cured, 13½c.; calf skins, per lb., 16c.; horse hides, \$2.50 to \$4.50 each; lamb skins and pelts, \$1 to \$1.50; tallow, No. 1, per lb., 5½c. to 7c.; horse hair, per lb., 38c. to 42c.

FRUITS AND VEGETABLES.

Receipts of fruit, both foreign and home grown, were plentiful. Apples—Extra choice No. 1 Spies, \$5 per barrel; No. 2 Spies, \$3.50 to \$4.50; Baldwins, \$3 to \$3.50; Greenings, \$3 to \$3.50; Russets, \$3 to \$3.75; onions, Canadian, red, per sack, \$2.50; beets, per bag, \$1 to \$1.25; carrots, per bag, \$1; parsnips, \$1 to \$1.25; cauliflower, per case, \$2.75 to \$3; strawberries, 40c. to 50c. per quart box; cucumbers, \$3.50 to \$3.75 per case.

Montreal.

Live Stock.—Offerings of live stock on the local market continued light, but as this is the Lenten season, and demand is consequently not at all heavy, the market showed but little change in tone. Very little choice stock was offered, but the best sold at 8½c.; fine stock being quoted at 7½c. to 8½c.; medium at 6½c. to 7c., and common steers as low as 4½c. per lb. Milk cows continued in good demand, but it was said that prices were slightly lower, outside prices being \$100 each, and good cows \$80 to \$90. Prices were down to \$50 each. Offering of heavy sheep and lambs was light, and prices ranged from 8½c. to 9c. per lb. for lambs, and 6c. to 6½c. for sheep. Demand for calves was very fair, and prices ranged, by the pound, at 3½c. to 7½c. Offerings of new calves were light, but increasing. Hogs were in good demand, and selected Ontario stock sold at 10c. per lb., while Manitoba hogs ranged from 9½c. to 9½c., weighed off cars.

Horses.—Enquiry for horses was better, and quite a few changed hands. Horses weighing from 1,500 to 1,700 lbs., sold at \$275 to \$300 each; light draft, weighing from 1,400 to 1,500 lbs., \$225 to \$275 each; broken-down, old animals, \$75 to \$125, and choicest saddle and carriage animals, \$350 to \$400 each.

Poultry.—The market was very firm, and prices rather higher. Turkeys were 22c. to 24c. per lb.; ducks, 16c. to 18c.; chickens, 19c. to 21c.; fowl, 16c. to 18c., and geese, 14c. to 16c.

Dressed Hogs.—The market for dressed hogs was steady, prices being 13½c. to 14c. per lb. for fresh-killed, abattoir-dressed stock.

Potatoes.—The market continued firm, and stock was scarce. Green Mountains were 85c. to 95c. per bag, ex track, in car lots, while Quebec varieties were 80c. to 90c. In a jobbing way, prices were 20c. to 25c. higher, ex store. Bags weigh 90 lbs.

Honey and Syrup.—No new syrup as yet in the market. Tins of old syrup sold at 9c. to 10c. per lb., while syrup in wood was 7c. to 8c., and maple sugar, 9c. to 10c. per lb. White clover comb was 15c. to 16c. per lb.; extracted, 10½c. to 11½c.; dark comb, 13c. to 14c., and strained, 7½c. to 8½c. per lb.

Eggs.—Prices of eggs were about steady. Canadian stock, strictly fresh, was 36c. to 37c. per dozen, and American was 35c.

Butter.—The market for butter was fractionally higher last week. Choice creamery was 29c. to 30c. per lb., wholesale; fine was 28c. to 29c., while second grades were 26½c. to 27½c. Dairy butter was firm, at 23c. to 24c. per lb. for Ontario, and 22c. to 23c. for Manitobas.

Grain.—Oats were steady in price. No. 2 Western Canada oats were quoted at 44c. per bushel, ex store, in car lots; No. 3, 43c. to 43½c., and No. 2 feed, 42c. to 42½c. No. 3 American yellow corn was quoted at 72½c. to 73c.

Flour.—The market held firm. Manitoba first-patent flour was quoted at \$5.40 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.—The market for millfeed was unchanged. 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.—Prices showed no change. No. 1 pressed hay, car lots, Montreal, on track, \$16 to \$16.50 per ton, while No. 2 extra was \$15 to \$15.50, and No. 2, \$13.50 to \$14.

Seeds.—Merchants bought grass seeds pretty freely, but farmers still hold back. 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.—The market for hides was unchanged, and quality poor. Beef hides were 13c., 14c. and 15c. for Nos. 3, 2 and 1, respectively. Calf skins were 17c. and 19c. for Nos. 2 and 1, and lamb skins, \$1.20 to \$1.25 each, with horse hides ranging from \$1.75 for No. 2, to \$2.50 each for No. 1. Tallow sold at 1½c. to 3c. for rough, and 5c. to 6½c. for rendered.

Buffalo.

Cattle.—Market made a good start here the past week. Receipts were moderate, demand proved rather good, and sellers were enabled to raise prices somewhat. Towards the close of the week, however, a snag was struck, and buyers had the deal very much their own way, taking off all gains made at the start for the week, and then a dime or so. Best cattle here the past week sold from \$8.85 to \$9, and the top shipping steers at that could have shown far better finish. A lot of warmed-up shipping steers still monopolize the market, comparatively few being of the better-finished class. Demand is strong for the high-percentage killing steers, and there are plenty of authorities who think that the half-fat kinds are dear at the prices they are bringing, proving expensive in the beef. Feeding sections are getting cold feet on putting corn into cattle, with the condition of the trade not just what they wish it. Foreign beef continues to reach American shores. Other meats sold weak, and the dope handed out the past week was that the cattle trade could hardly be expected to show better results under such conditions. A fear of lower prices is causing some feeders to turn loose, and too many of the half- and three-quarters-fat steers, in consequence, are coming marketward. The feeder who has the real prime kinds, whether weighty or handy steers, authorities say, has nothing to fear; they are wanted, and the prices are paid, but it is the medium killing classes that are being shied at, and indications point to the lower level, so some sellers think. Stock and feeding cattle are being disposed at high prices. Feeders are bringing \$7 to \$7.50, with butchering steers carrying some flesh, at \$7.75 to \$8. The spread seems inconsistent, but the feeders are buying stock cattle, and the butchers are laying down on the warmed-up killers. Bulls are the highest commodity marketed, sausage bulls being in especially good demand from the East. Milkers and springers are showing some improvement, mostly on the real good kinds, however, medium and common ones being continuous weak sale. Week's receipts, 3,675; previous week, 4,125. Quotations:

Heavy steers, prime to choice, \$9 to \$9.25; heavy steers, medium to good, \$8.25 to \$8.75; butcher steers, good to choice, \$7.75 to \$8.25; butcher steers, medium to good, \$7.50 to \$7.75; best cows, \$6.75 to \$7.25; fair to good cows, \$5.50 to \$6; cutter cows, \$4.50 to \$5; canner cows, \$3.50 to \$4.25; good to choice heifers, \$7.25 to \$7.75; fair to good heifers, \$6.75 to \$7.25; light and common, \$5.25 to \$5.75; best stockers and feeders, \$6.75 to \$7.50; fair to good, \$6.25 to \$6.75; common, \$5.50 to \$6; stock bulls, \$5.50 to \$6; bologna bulls, \$6.50 to \$7; fat bulls, \$6.50 to \$7.50; best milkers and springers, \$65 to \$85; common, \$40 to \$50.

Hogs.—Range was narrow the past week, being from \$9.10 to \$9.25 for the first five days. Market was unsatisfactory, and on Friday buyers got some as low as \$8.60. High time for the past week for pigs was Monday, the bulk selling at \$8.90. Roughs, \$8.25 to \$8.50; stags, \$7 to \$7.50. Receipts the past week, 25,120; previous week, 35,200; year ago, 28,800.

Sheep and Lambs.—Lamb market reacted fore part of the past week, Monday tops selling mostly at \$8, while Tuesday they were jumped to \$8.40. Trade afterwards proved very unsatisfactory, and several cars were carried over from day to day, buyers getting the best lambs Friday at \$7.85 to \$7.90, with a few at \$8. Cull lambs first of week sold up to \$7.75, and latter part went from \$7.35 down. Sheep prices were about steady all week, wethers selling from \$6.25 to \$6.40, with ewes from \$6 down. Top for yearlings, \$7.50, and on Friday best yearling wethers dropped to \$7.10 to \$7.15. Receipts for the past week were 21,800; previous week, 33,400; year ago, 26,400. Some authorities think that lambs are on the toboggan, and that values will go off, some predicting \$7.50 lambs for March.

Calves.—Prices were steady first four days last week, tops selling from \$11.50 to \$12; bulk \$12. On Friday, values took a tumble of 50 cents, majority of the tops going at \$11.50, with culls \$9.50 down. Fed calves, \$5 to \$6.50.

Receipts for the past week were 2,100; previous week, 1,800; year ago, 2,225. No Canadians.

Eggs.—Active and steady. White, fancy, 82c.

Live Poultry.—Turkeys, per lb., 20c. to 22c.; fowls, choice, 18c.; fowls, fair to good, 16c. to 17c.; chickens, per lb., 17½c. to 18c.; old roosters, 13c. to 14c.; ducks, per lb., 20c. to 21c.; geese, per lb., 15c. to 16c.

Potatoes.—Trade light; steady. White, fancy, per bushel, 75c.

Chicago.

Cattle.—Beeves, \$7.15 to \$9.70; Texas steers, \$7.10 to \$8.15; stockers and feeders, \$5.60 to \$8.10; cows and heifers, \$3.70 to \$8.50; calves, \$7 to \$10.

Hogs.—Light, \$8.05 to \$8.95; mixed, \$8.65 to \$9; heavy, \$8.50 to \$8.92½; rough, \$8.50 to \$8.60; pigs, \$7.25 to \$8.70; bulk of sales, \$8.85 to \$8.90.

Sheep and Lambs.—Sheep, native, \$4.80 to \$6.30; yearlings, \$5.80 to \$7; lambs, native, \$6.80 to \$7.80.

Gossip.

CHANGE OF DATE.

Do not fail to notice the change of date of P. S. Riddell's sale in this issue, from March 25th to March 26th.

At Kingsley, Iowa, March 5th, seventy-one head of Herefords, from the herd of J. A. Shade, sold for an average of \$296, the highest price being \$1,500, for the three-year-old bull, Bright Lord. The yearling bull, Beau Shade, sold for \$700. Thirty-two bulls averaged \$300.

At a sale of Herefords, at Kansas City, Mo., March 3 and 4, from the herds of Funkhouser, Gabbert, and others, 114 head averaged \$310. The highest price attained for a bull was \$1,000, for the yearling, Beau Dare, by Paragon 12th, and the highest for a female was \$840, for the four-year-old cow, Belle 8rd.

Attention is directed to the new advertisement in this issue of the auction sale to take place on Thursday, March 26th, by T. Alex. Lawrence, of Thamesville, Ont., at the Tecumseh House in that town, of Clydesdale stallions and mares, imported, and bred from imported stock, most of the mares being in foal to the grandly-bred horse, Prince Ronald (Imp.), also included in the sale, and said to have weighed over 2,100 pounds; also four general-purpose mares in foal, and several colts rising three and four years.

STOCK SALE DATES CLAIMED.

March 24th.—Bales Bros., Lansing, Ont.; Holsteins.

March 25th.—Oxford District Holstein Club; Holsteins, at Woodstock, Ont.

March 26th.—W. A. Hartley, Woodstock, Ont.; Holsteins; dispersion.

April 9th.—P. J. Sallee, Lachine Rapids, Que.; dispersion sale of Holsteins.

March 26th.—P. S. Riddell, E. R. No. 3, Granton, Ont.; Holsteins and grade Shorthorns.

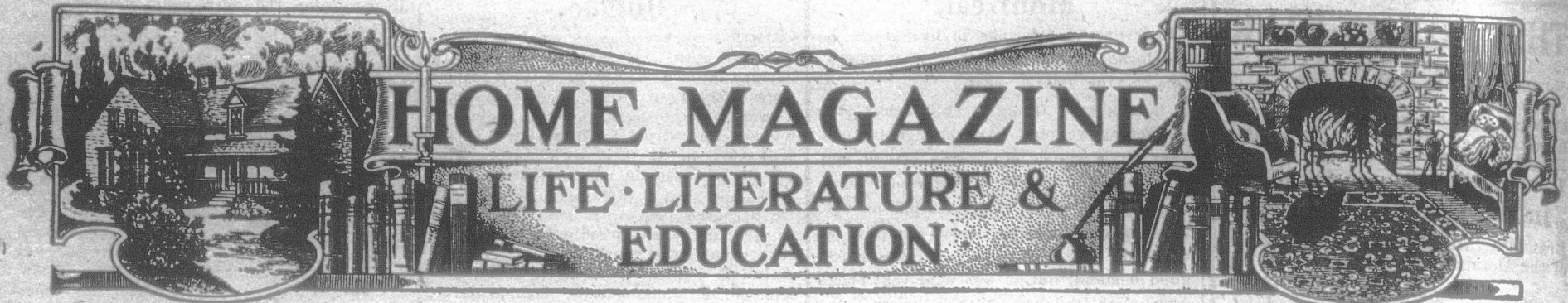
March 26th.—R. McCormick & Son, Paris, Ont.; pure-bred and grade Shorthorns.

March 26th.—T. Alex. Lawrence, Thamesville, Ont.; Clydesdale stallions and mares.

April 3rd.—J. Loyd Jones, Burford, Ont.; Shropshire sheep and Shorthorn dairy cattle.

Trade Topic.

Attention is called to the advertisement in the Hower Seed Co., of Guelph, Ont., in this issue, who are offering some choice seed to the trade this spring. O. A. C. No. 72 oats are offered at 15 cents per pound, or 10 pounds for \$1. This, owing to a typographical error, appears as \$1.15 per pound in this issue. Alsike clover is \$13 per bushel, instead of \$3, as published in the advertisement.



The Lure of Saptime.

I join the throng in the crowded street;
We are slaves in search of pelf;
I am sorry for the fettered gang,
I am sorrier for myself.

Just

Because
I know a place up-country,
In God's great out-of-doors,
A quiet, sheltered corner
On which the springtime pours
The wine of warmth and magic
And well I know the sun
Has kissed the grove of maples,
And sap begins to run.

There are sounds and sights that money
brings,

They are good to hear and to see,
But they're city sights and city sounds,
And right now they've no charm for me—
Just

Because
I want to see the bluebirds
And watch a sap-snow fall,
To see the pussy willows,
And hear the robin's call;
To see the frisky chipmunks,
As oft before I've done,
I want to be up-country
When the sap begins to run.

I sit in the seats of the mighty,
And gather my share of the best,
Of weary toil that brings treasure,
Still, now I am filled with unrest,
Just

Because
I want to see the sap-bush,
And smell the wood-fire smoke
To watch the boiling kettles,
And see the old home folk;
I'm hungry for hot sugar
And the simple, homely fun
That's sure to be up-country
When the sap begins to run.

—Floy Shoemaker Armstrong in National Magazine.

The Farmer's Spring.

(By Helen E. Williams.)

It begins—not the calendar's, not the poet's spring, but the farmer's—some blustering night in March, when he has gone out after dark to see that the live stock are all right. The wind has crusted the whole side of the barn with snow, and swirls particles of it, hissing, against the lantern. It has piled a scalloped drift in front of the sheep-shed door, and when the latter has with difficulty been wrenched open, bangs it precipitately to with tempestuous jeer.

Here and there a sheep or two has got up, startled by the concussion, but mostly they return the farmer's scrutiny with impassive stare. He advances slowly, the lantern breaking the shadows into quivering shafts of light. As his circuit brings him to the farther corner, a ewe suddenly stamps one fore foot twice, as a person might strike a cane on the floor to attract attention. The farmer lifts his lantern, and there, on the straw at his feet, is a yellowish-black something that staggers with a certain grotesque jauntiness up on its stilt-like legs, and, tail wriggling hungrily, emits a thin and querulous bleat. A pace behind a similar newcomer lies couchant. Twins—one dead.

Thereafter they appear on the scene at any and at all times, singly and in twins, occasionally even in triplets. The lambing season is of short but strenuous duration. There are so many contingencies to meet, so many complicating prejudices to overcome. For once in every so often there is a ewe that refuses to own her offspring. This has to be reared, cosset-fashion, by the aid of a bottle or teapot, till such a time as it is able to procure a vicarious living by sponging on sheep who are under the

misapprehension that they are giving sustenance to their own. Or it is conveyed to a ewe that has lost her lamb, when it applies itself in no half-hearted way, while the conveyer stands by to prevent the ewe from knocking it down. So quickly do they learn, that although they dare not approach their foster-mothers alone the instant the farmer appears, they dash for their churlish nourisher, and make up for lost time.

It is quite as good as a play, as the saying is; to watch forty or fifty lambs after they have been put out to grass. When the ewes wander away in search of

the pantomime of I am the king of the castle with realistic abandon. Then they will begin their ridiculous races all over again.

But long before this, other advents divide the farmer's attention. Whereas, for a time, hardly a corner in the hay-loft was without its termagant "setter," with a chip apparently on every feather, now inordinately proud and matronly Rhode Island Reds strut in slatted coops, aswarm with the fluffiest of yellow chickens. Velvet-eyed calves frisk in box stalls. Little pink pigs scamper in their run.



At the Sugar Shanty.

"For it is the sugaring season, and only the prescience of spring to be sensed."

the tenderest blades, in the morning, or stand dreamily chewing their cud at sundown, the lambs betake themselves to a long, narrow lane, and run races at top speed. Back and forth they tear, their feet seeming hardly to touch the ground. Sometimes one will execute a series of elastic bounds in the air, a foot or more high, little black head waggishly shaking—the rest critically watching. Then another will perform, going a little farther, and bounding a little higher, or, as a special feat, giving his body a comic twist mid-air. Then they will set off, pell-mell, for a compost heap, and act

In the air is the sound of the axe and the saw, converting longitudinal wood-piles into pyramidal ones that exude a wholesome fragrance as tonic as ozone. In the woods is the smell of spring. No hint of green as yet. No pink budding in the maples. For it is the sugaring season, and only the prescience of spring to be sensed. Work for someone here, too, but such work! Tapping the maples under flying gray March clouds; gathering sap while the dawn can still be tasted and the crust "holds"; boiling it down through successive corrugated divisions of the long, shallow vats, in



"This is not work, it is—Sugaring."

the sugar shanties; peddling the bright tin cans of syrup, and cakes of mica-dusted gold, this is not work, it is—sugaring. But it, and the delightful out-in-the-woods parties which it makes possible, are soon over.

The next thing to appear on the farmer's horizon is the sheep-shearer. He goes from flock to flock all over the country, and is extremely jealous of his reputation for shearing so many per day without cutting them. The number varies, twenty sheep representing an average man's work, forty the skill of an expert. The sheep, even the young ones, appear to know what is coming, and, like their biblical progenitor, are dumb throughout the deft process of clipping off their heavy, hot coats.

For some unsolved reason, sheep-shearers are always garrulously inclined, and possessed of a fund of stories treating of many phases of farm life. Their point of view regarding justice in the concrete is apt to be colored by personal bias. According to their code, it would be the acme of all that is undesirable for a man appointed by the Government to watch lakes during the close season to make an example of a neighbor caught in the act of poaching. "Tell on Tom?" shears suspended indignantly, "Why, that would be mean!"

By the time he has betaken himself and his stories elsewhere, the crows are no longer regarded as harbingers, but as menaces to crops. The trees have burst into mists of green. Bulb and seed catalogues are causing emulative gardeners to don straw hats and sally forth to wage fierce warfare upon quack grass and like obnoxious foes. The snowdrops and crocuses are out, the robins busy with their nests. Intermittently voices of men ploughing or getting in crops float across fields. A smell of burning pervades the air. Wherever one goes, wherever one looks, life, pulsating life—summer on the wing.

Garden Preparations.

(By "Amateur.")

I have received in the last two weeks six seed catalogues! In the midst of winter, as we now are, they seem like a whiff of summertime, and make one think of strawberries, and asparagus, and flowers,—above all, flowers. If you,—and by you, I mean anyone who finds this article of sufficient interest to read, but especially farmers' wives and daughters,—have not one or more of these harbingers of spring on hand, please do send for one. Simmers', or Rennie's, or Bruce's, or any of our reliable seed firms, issue splendid catalogues.

If you have not the time and money to spend on large flower and vegetable gardens, do at least try one or two beds of flowers. Lay a trench of sweet peas, a bed of pansies, petunias, or Shirley Poppies, with a few climbing vines, like nasturtiums or canary-bird vine (a very pretty, bright-green mass of foliage, with delicate little yellow flowers, a tender annual), or even morning-glories against your verandas, fences, and your house.

I could, of course, mention dozens of beautiful flowers, but many of the most beautiful are difficult to start.

If you have never gone in for vegetables much, just had perhaps, potatoes, cabbages, and a few roots, just try some extras this year and see what a wonderful difference it will make to your table; yes, and to your digestion, too.

Plant your vegetables where the man can cultivate them frequently with the one-horse cultivator, putting your rows far enough apart so this can be safely done, and you will not find the weeds very hard to subdue. But do not, if you can possibly avoid it, have your vegetable garden between your lawn and

the road, or if you live a distance from the road, your driveway. Consider the effect on passers-by! Perhaps you have a lawn, but have felt that it was really too much work to keep it mowed all summer, and so have not even got a lawnmower. Get one this spring; start early before the grass gets too long, and if the lawn is rough, roll it a few times, then mow it about twice a week if the growth is healthy and rank. You will soon be proud of your neat lawn, and find that by cutting before the grass grows long, the work will not be heavy. I wish I could just pop in and help everyone, or anyone who contemplates a lawn and flowers for the first time this year.

If your house is gray and shabby, give it a couple of coats of paint. It will preserve the wood and make a wonderful difference in its appearance. That is, unless you paint it green, with yellow trimmings, or some such bilious combination!

When I married and came on the farm four years ago, I knew next to nothing about flowers. Our house was not all built yet, and stood in a rough, stony yard, surrounded by a mass of noxious weeds that stood as high as I did, ragweed, thistles, goldenrod, catnip, nettles, etc. Now, I am happy to say, I have a neat lawn, bordered with flower-beds, and the house is painted, and has verandas covered in the summer with climbing roses, clematis, and various annual climbers.

There were no small fruits when I first came. Now I have all the strawberries, raspberries, etc., we can use, and more, and a splendid vegetable garden. I have a hotbed, and start all my tender plants in it, also some early lettuce and radishes. After the initial outlay is paid, a hotbed that will last with care indefinitely, is a real economy, as you need buy no plants at all, and can raise just what you wish, and a greater variety than one can usually get from a florist or gardener.

When the seed catalogues come, I take a large sheet of paper and draw a plan of the house and grounds. Then I plan what flowers to order, just where I shall put them, so that I may have a harmonious color scheme.

Of course, I have a perennial border, and add to it every year.

I love my spring flowers best of all, and have a great many tulips, narcissus, crocus, hyacinths, etc. Last summer I had an asparagus-bed made, and planted good, strong, two-year-old roots, so this coming summer we look forward to a great treat.

I cannot tell you what a very great pleasure my flowers, lawn, fruits, and vegetables are to me. Just try it and see if pushing the lawnmower and pulling weeds, and even carrying water in dry times, are not over-balanced by the pleasures your eyes and nose and palate will receive all the year around nearly.

For, think of the vegetables and canned fruits and jellies such a garden will yield for the long winter months! And to those who have all these things, and who try to make our country and this old world a place of beauty, I say courage—push on!

We need flowers and sunshine and cleanliness and happiness above everything.

If people who work so very hard and save so very "close," and don't improve, but, instead, put every cent they can screw out of their land in the bank, would only stop it, and spend a little time and money in enjoying life and making their home surroundings pleasant!

If farmers generally would take a pride in good fences, and have as few weeds as possible, and do what they could to have good, comfortable farm buildings, sanitary and convenient, wouldn't it be fine? Numbers of them do, indeed; but some do not! I wish the day would come—it will, I believe—when we can drive through this Province mile after mile and say with pride, "Could any other part of the world beat this grand old Ontario of ours! Not much!"

I wish some kind and liberal-minded man in each county would offer prizes for the best-kept grounds and gardens, as some have done. It is a splendid idea.

Travel Notes.

(FROM HELEN'S DIARY.)

Munich, Jan. 25, '14.

They no sooner get through celebrating one thing in Munich than they start right in on something else. There is always "something doing," something that calls for bands and soldiers, and pomp and ceremony. No matter how aimless you may be when you go out for a promenade, the sound of music puts life into your steps, and the sight of a street mob rouses your curiosity and enthusiasm, so that before you know what you are doing you are elbowing

Munich Actors' ball; Museum ball; Merchants' ball; Artists' Union ball; Artists' and Singers' Union ball; Jugglers' ball; Teachers' Singing Club ball; Press Club ball; Munich Carnival Club ball; Munich Rowing Club ball; Austro-Hungarian Aid Society ball; Present and Post-graduate Students of Academy ball; German Art Students' Union ball; Arts' and Crafts' ball. Besides all these, there are masquerade balls every Wednesday and Saturday night at the Deutches Theater, and balls innumerable at all the places of public entertainment. The whole city is dancing mad.

The unique feature of this year's Car-

ject in view, they organized a five-and-drum band, marched courageously forth into the desolate streets, dancing and singing merrily as they went along. The sorrowful people hurried to the doors and windows at the unwonted sound, and when they saw the gay procession and heard the glad news that the plague was over, they swarmed out into the streets again and joined in the general merry-making. Ever since that time, the Schaeffertanz has been celebrated every seventh year. Apropos of this, the wife have coined a phrase: "Die hat auch schon ihre sieben oder acht Schaeffertaeenze auf dem Buckel!"—which refers to age, and means that the person spoken of has seen seven or eight Schaeffertaeenze—a phrase equivalent to our own slang expression, "She'll never see forty again."

In this dance, about twenty-eight men take part; there are also two clowns, and several special performers. The uniform worn is very gay and fantastic. It consists of a green cap with white and blue feathers, a red coat with silver trimmings, white vest and stockings, black knickers, and low shoes with large silver buckles. In their hands they carry arch-shaped green boughs.

The dance steps are more or less complicated, and there are many intricate figures, all of which have some symbolistic meaning. Occasionally the dancers sing and shout, and do some fancy high kicking around a diminutive beer barrel, which plays an important part in the performance. The original dance music is used—the same old tune that is rung out daily by the City Hall chimes at eleven o'clock in the morning. Simultaneously the automatic Schaeffler away up in the clock tower begin to dance. They dance for about five minutes. When they stop, an automatic cock still higher up in the tower begins to flap its wings and crow in a dumpty and official manner, though why, or what for, I know not.

Every morning a gaping crowd of tourists gather in the street opposite the City Hall to watch this mechanical exhibition. It is one of the sights of the town. But very few of the sight-seers know of the intimate historic connection between the gigantic, grotesque stone dragon on the corner of the municipal building, and the dancing automatons away up in the high clock tower.

The opening Schaeffler dance of the season was given on the 12th of January, in the grounds of Wittelsbach palace, where the King is at present in residence, it being the time-honored custom to give the first performance before royalty. After this, the dance is given before the residences of high functionaries and notabilities, and when they have all been duly honored, the dancers go wherever fancy leads them, or the lure of gold invites them, for none of their performances are gratuitous. In the daytime they dance in the street or in the grounds of private residences, but at night they fling the nimble foot at balls and places of entertainment.

We saw the first performance in the palace grounds. Our pension being only a block away, we dragged chairs to a good viewpoint, and by standing on them, could see over the heads of the surging mob in the street. The king and his family viewed the scene from the balcony just above the two battered old lions that guard the royal portals. Although it was a cold, foggy morning, all the adjacent streets were jammed with people, and all the getatable window-edges and posts ornamented with small boys.

As the weeks go on the Carnival spirit becomes more pronounced. Night is turned into day; the absurd and grotesque is everywhere apparent; the shop windows are brilliant with masquerade costumes, brass jewelry, and glass diamonds. The main topic of conversation is of festivities past, present, and to come. The gay life in the cafes begins about midnight, and keeps up till near dawn. Bands of rolicking students go singing through the streets at all hours of the night, sleep being the one thing that Carnival celebrators have no particular use for—at night.

It takes forever and a day to get to any place in Munich—if you go by the shanks-mare-route. The reason is, that unless you are either blind or very strong-minded, you simply can't get past the shop windows. Window-dressing is



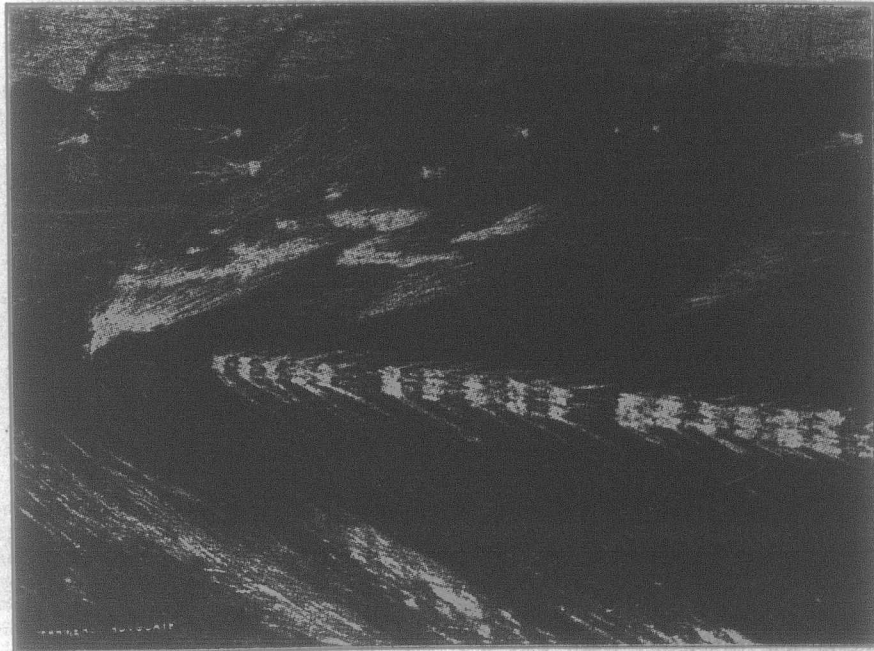
The Schaeffertanz.

your way through the crowd trying to find a good vantage point to see the show—whatever it is.

Just now, Munich is celebrating the Carnival, which lasts for six weeks and ends at Lent. This is a very gay season here; conventions are more or less discarded, and feasting, dancing, and hilarity, are indulged in to an enormous extent. Masquerade and costume balls are one of the main delights of Carnival-time. It is estimated that during this period there are over four thousand balls in Munich. All the restaurants and cafes and breweries are gorgeously decorated, and all are offering special attractions in the way of masquerades and

nival is the Schaeffertanz, which only takes place once in seven years. It is given in the streets by die Schaeffler—the men who make the beer barrels. During the entire Carnival season, these men spend their days (and very often their nights) dancing. For each performance they receive a stipulated sum of money.

The origin of this dance is historic, and goes away back to 1517, the year of the great plague, which played such havoc all over Southern Europe. According to the legend, this loathsome malady was brought into Munich by that terrible old dragon which flew in through one of the city gates and took up its



A Futurist Picture of an Express Train Going Sixty Miles an Hour.

dances. The Deutches Theater—which, during the rest of the year is a popular vaudeville house—is used during the Carnival exclusively for social functions. All the most important balls are held there, including the magnificent Charity Ball, which is especially gorgeous, being attended by the King and the nobility.

Every society and organization in the city seems to have a ball during this festive period. I picked up a list of balls to come the other day, and here are a few of them:

The Singing Guild ball; the Art Academy ball; Charity ball; German Actors' Union ball; Zoo Benefit ball; Society of

quarters in a deep well in Marien Platz, and by its poisonous breath so polluted the atmosphere that 15,000 people perished. So terror-stricken were the townspeople that they refused to leave their homes: The streets were empty save for funerals, and no stranger came within the gates. After a time the plague ran its course, but the people were still so paralyzed with fear they would not budge from their houses. Then die Schaeffler met in their inn and debated as to what should be done. They decided that the terrified citizens needed, above all things, to be cheered up and encouraged. So, with this ob-

such an art here that even the meat shops get up displays that draw crowds. Whenever I see a group of hypnotized men in front of a store window I know they are gazing at sausages, of which there are hundreds (perhaps thousands) of varieties in Germany; whenever I see a group of women in ecstasies before a high plate-glass window, I know instinctively it is costumes or hats they are looking at; but whenever the group is mixed, I am positive it is an art store. One does not need to go to the art galleries in Munich to see the great masters; the streets are lined with them—reproductions of all sizes and prices, from postal cards up. Never saw so many art stores; seems to me about every fifth store is dedicated to art. And, by the way, one of the most popular of the modern pictures, one that is seen in almost every window, is by a young Canadian artist—Paul Peel, of London, Ontario—who unfortunately died just as he was becoming famous. The picture referred to is called "After the Bath," and depicts two charming little nude girls warming themselves in the bright glow of an open fire. They are said to be the artists' own children.

There is one special art store in Munich which always has a crowd in front of it. It is the place where the latest pictorial atrocities in Futurist and Cubist art are displayed. Gazing at that window has become a perfect obsession with Uncle Ned. He will stand in front of it spellbound for half an hour, and then go back and take another look. It is not because he likes the things exhibited—oh, no!—but because they are so baffling. They keep him guessing. I don't believe anyone except the artist knows what they are meant for. Every few days the pictures in the window are changed, so one's interest never flags. At first the pictures strike you as hideously ugly, regular color nightmares, great dabs of paint splashed on the canvas as if done by a blind lunatic in a state of frenzy. But, after you have studied the pictures for a while, you really begin to see things, and then you see more things, and if you have any imagination you can sometimes really believe that you see something. The trouble is, no two people seem to see the same things in the pictures. Uncle Ned and I fell into quite a hot dispute one morning over a glaring canvas in the window. What he thought was a landscape with a gorgeous sky, and a reflective cow in the foreground, seemed to me to be quite unmistakably a woman hanging out clothes in a back-yard. Finally, in order to prove that he was right, he stepped inside and inquired, and was told that the subject of the picture was "Early Spring in Bavaria." However, he still insists that the woman is a cow.

Aunt Julia's rheumatism and temper are getting worse every day, and I feel sure we will be headed for Wiesbaden before many days. I wish there was a sanatorium where people could go and get their tempers cured, because I have an idea that it isn't the rheumatism that causes the temper, but the temper that causes the rheumatism.

Hope's Quiet Hour.

Giving Thanks Always.

Singing and making melody in your heart to the Lord; giving thanks always for all things.—Eph. v: 20.

"Thanks be for life that lives
Stronger through strife;
Thanks be for death that gives
Ending to life.
Song of the silence born
Freedom of thrall,
Spirit from flesh outworn—
Thanks be for all."

A few weeks ago I heard a brave sermon preached in the Toronto General Hospital. The preacher looked tenderly at the congregation of sick and suffering people, and urged them to rejoice always. It takes courage to endure pain without a murmur, but how much greater courage it takes to be glad in and for the pain. He was a brave man to even suggest such a possibility—and I told him so—

how much braver are those who rejoice when called to share in the sacred fellowship of sufferers.

It is easy to see the glory of the martyr—it is far from easy to endure martyrdom with a true martyr's joy, and to say:

"For the glory and the passion of this midnight,

I praise Thy name, I give Thee thanks,
O Christ!

Thou that hast neither failed me nor forsaken,

Through these hard hours with victory overpriced;

Now that I, too, of Thy passion have partaken,—"

A few days ago a sick man said to me: "Look at that man over there! He is perfectly strong and well, and, of course, he is happy. Anyone who is well has nothing to complain about." There was a great deal of truth in the remark, and yet it is possible that the man he was envying thought he had his full share of troubles and worries. If we are going to wait until the whole world

is arranged to our liking, before we learn to be happy and thankful, there is small chance of our finding happiness in this world.

Perhaps we had better begin at the other end, and count our blessings instead of our troubles. When they are all remembered, and God has been thanked for each, it will be time enough to count up our troubles—probably there are only half a dozen, at the outside, while the blessings are innumerable.

There is the great blessing of health, which so many of us accept day by day without a word of thankfulness to the Giver. After the terrible earthquake in California, many who had lost all their property would be ready to echo the reply of an old sea-captain, who was asked about the welfare of his family. He lifted his cap reverently and answered: "All well, thank God!" When a family escaped, with its ranks unbroken, the loss of property seemed a comparatively trifling matter.

One who witnessed the great catastro-

phe said: "The spirit of our men and women in California during this trial has been superb. It was almost worth while to have such a disaster to witness the resurrection of such a spirit."

It is almost always so in the time of severe testing. Human nature responds splendidly to the demands made upon it, and heroism is far more common than we are apt to think. But great occasions don't come very often, nor last very long. Our chief business is with the commonplace days. Why shouldn't we polish them up, and make them shine?

The sick man need not wait for health, the troubled heart for relief from care. Anyone can give thanks for pleasure; as Christians we are called to a grander task than that—to give thanks for the discipline through which God is shaping character.

I remember once sitting beside a woman who was dying of cancer. She talked eagerly about the new life ahead, and even spoke cheerfully of the dark passage. Her hand was clasped closely by her loved Master, and she was overflowing with joy at the thought of seeing Him face to face.



After the Bath.

By the London, Ont., artist, Paul Peel. A favorite picture in Munich.

We are all bound by our habits, therefore it is important to form good habits and conquer bad ones. I don't often preach about self-examination, but it certainly is wise to take stock of ourselves sometimes so that we may know the enemies we have to fight. It is not easy to break a habit of faultfinding and to establish the habit of thankfulness, but it is possible by persistent effort.

Ingratitude is a hateful sin; let us be careful lest we fall into habits of ingratitude unawares. Do we grumble over a day or two of unpleasant weather, forgetting to thank God for many fine days? Do we make a fuss if anything goes wrong in the household arrangements, taking the daily work of the busy housekeeper as a matter of course?

The woman who makes the most of every trifling ailment or discomfort, insisting on sympathy from everybody if her head aches or if a teacup is broken, does not know how this apparently harmless habit is poisoning the home atmosphere, nor how small her soul is grow-

ing. Perhaps she wonders why her husband and children seem glad of an excuse to get away from home. She complains that other people have good times, and nothing pleasant ever comes her way. And yet it is only the habit of faultfinding that has enslaved her. Probably she is not really as unhappy as she thinks. She certainly is not proving herself a "great woman," like the washerwoman who did not grumble when her line broke and the clean clothes went down in the mud. There is some "credit in being jolly" when good work has to be done all over again.

Let us open our windows and let the glad sunshine stream into our lives—the radiant light of joy, reflected from the face of the God of Joy. Dull lives are not only a misery to the people who live them, but they depress other people and injure their soul-growth. No one can tell how far his light may shine, nor how many people are cheered by his happy face. A woman was starting off from her city lodging one day, when she heard a child's pleading voice from a fourth-story window opposite: "Please don't forget to light your fire to-night." There was a sick child, in a bare little room, who was alone all day and got more lonely as the dark came on. Every night he watched for the light in the room opposite, and when it failed to appear he found darkness dreary. It is not always easy to keep the fire of glad thankfulness burning, but those who insist on being happy always send warmth and brightness into other lives.

We all can be happy if we try hard enough. "The secret of life is not to do what one likes, but to try to like what one has to do." If we can't learn to like it, at least we can always thank God for it. Our business in this world is not to have a good time, but to grow daily more Christlike. How thankful we should be to the Great Refiner Who will not allow His precious jewels to remain uncut and unpolished, and Who holds His gold in the fire until the dross is burned away. Let us try to learn the joy of the martyr:

"Who lying in God's arms hast learned to bear
The slow, sad hours with smiles, and set thy face
Still as an angel's to the bitter grace
Of the sharp strokes wherewith He chasteneth
His best-beloved
God hid His face, but held him by the hand."

DORA FARNCOMB.

Rural Districts Neglected.

Wealth gravitates to and accumulates in cities, and money for the relief of distress and for social uplift is spent there also. The consequence is that there is much suffering and misery in rural districts that is not attended to, and conditions that are manifestly wrong, drift on for years until children grow up to be a life-long burden on the community, and to perpetuate in their offspring the only life they have known. An appeal was made to a city benevolent organization for some clothing for a family in a neighboring district. The request was refused on the ground that the city poor needed all they could get. Much clothing and relief distributed in the city goes to families where the chief cause of distress is drink, and it is always difficult to properly investigate the history of city families, and prevent indolence and fraud. Strange to say, also, well-to-do people in the country send their charitable contributions to large city charities, ignorant of or indifferent toward the wretchedness they might substantially relieve in their own villages. There is need for organized social work in rural districts, and a judicious expenditure of funds. How can this be brought about, is the problem.—J. J. Kelso.

"In the Garden With Him"

By Dora Farncomb, author of "The Vision of His Face." Cloth, with gilt lettering, 75 cents; postage 5 cents. The William Weld Co., Limited, London, Canada. English Edition, with introduction by Bishop Watts-Ditchfield. Cloth, 8s. 6d. net. London: Robert Scott, 62 Paternoster Row, E.C.

The Rt. Rev. J. E. Watts-Ditchfield,

(Bishop of the new diocese of Chelmsford, Eng.) says: "All the beauty of the Garden is pictured with true and delightful delicacy by Miss Farncomb. . . . In the Garden all our life we can find God walking, not only in the 'cool of the day,' nor does He only 'resort there oftentimes' as the Master to the garden of olive trees, but He is ever present 'all the days.' . . . Each chapter in the book is a walk down a fresh path. In the garden there is a fragrance from the pleasure all the more delightful because it is that aroma, faint and subtly suggestive, which draws us nearer to examine the blossoms for ourselves, to walk ourselves 'In the Garden With Him,' which surely is just what the author desires.

"To all who love the Lord, I heartily commend this little book. Here they will see Him, speak with Him, and He with them, not like Mary thinking Him to be, but knowing Him to be, the Gardener, through Whose tender care we shall some day be brought into the Paradise of God."

Another Donation.

I have received \$2 from A. M., to use for some of my poor people. Many thanks. HOPE.

Cheer up Brother.

(By one of "The Advocate" readers.)
Go smiling through the world, my dear,
Though troubles come thick and fast,
It seems easier for you to shed a tear,
But the trouble will not last.

Sometimes the road seems dark and long,
There are weary hills to climb,
Then brighten the rest of the world with
a song,
The view at the top is sublime.

There's sweetness in pleasure after pain,
Though it makes the teardrops fall,
The robin singing in the rain,
Is a lesson to us all.

So, though the road be dark or bright,
Just sing, 'twill brighten our way,
To-day may seem like the darkest night,
To-morrow it will be day.

But this is easier said than done,
I know, for I've been through the mill,
Just lift your eyes to the Blessed One,
Who said, "I am with thee still."

Our troubles are a lesson to us all,
Without them we forget our God,
Remember the Lamb Who was sacrificed,
And the rough road He has trod.

He careth, oh, so much, for you—
Remember the sparrow's fall—
So, whether the sky be black or blue,
His angels guard us all. WILD ROSE.

The New Public Health.

The Farmer's Advocate" Bureau of Public Health Information.

QUESTIONS, ANSWERS, AND COMMENTS.

Conducted by the Institute of Public Health.—The Public Health Faculty of Western University, London, Ontario.)

Established and maintained by the Ontario Provincial Government.

[Questions should be addressed to: "New Public Health, care of 'The Farmer's Advocate,' London, Ont." Private questions, accompanied by a stamped, self-addressed envelope, will receive private answers. Medical treatment or diagnosis for individual cases cannot be prescribed.]

More About Foods.

WHAT ARE FOODS FOR?

The simplest explanation of what foods used in the body are for depends upon the analogy that all living things need nourishment just as a furnace needs fuel. This is not merely an illustration: furnaces burn things (coal, wood, kerosene, gasoline, gas, etc.) which are, chemically, not at all unlike foods; they are made

up of very much the same things, carbon, hydrogen, oxygen, that most foods are made of in part.

All these ordinary fuels, as they burn, produce carbonic acid and water chiefly.

Burning is merely a word we have for oxygen combining chemically with other things: oxygen combining with carbon makes carbonic acid; with hydrogen, water. In ordinary fires, the combination is so rapid that heat is produced usually to the point of visible flame; but although we do not usually think of anything burning unless flames are produced, slow burning goes on often without a flame. Rusting of iron, for instance, is a slow burning of the iron; that is, a slow combination of iron with oxygen, no flame and very little heat (so far as our ordinary senses tell us) appearing. The heat is produced, of course, but so very slowly that it passes off as soon as it is formed, and therefore does not accumulate anywhere sufficiently for us to notice it. This kind of oxidation or burning is the kind that goes on in the body, not so fast as an ordinary furnace, much faster than in ordinary rusting of iron. Food produces heat that is quite noticeable. Enough to boil a big tubful of water every day is produced by every man who works fairly hard.

FUEL FOR BUILDING PURPOSES.

Our body-furnace does not use food only for fuel, but also to replace the furnace itself, parts of which are always "burning out"; and even to make the furnace larger, as when one is "putting on" muscle; or when children are growing up. Think how much food a child must use to grow in weight from ten pounds when it is born, to 170 when it is an adult. The difference, 160 pounds, is often added by the time the boy is sixteen years old; a good, big, husky boy, that would be, but nothing very unusual. Ten pounds a year, say, on the average, is added by rapidly-growing children, besides all that is burned up. This means all the protein in fifty pounds of steak added directly to the body every year.

THE FUEL MUST BE DISSOLVED IN WATER.

Because people eat "solid" meat, "solid" bread, etc., they do not always remember that all they eat in the true sense, is really a very, very thin soup. Food is not added to the body merely by swallowing it; it must be broken up fine and finer, and most of it must be dissolved in the blood itself, before it can reach the real flesh and be added to it from the blood. Our true "feeding" does not occur through the mouth at the dinner-table, but all through our arms and legs and other parts, most of it after dinner-time is over.

WE REALLY ARE WATER ANIMALS.

We, the part of us that really and truly feeds, our living flesh, is bathed all the time internally by a colorless, salty liquid, called the lymph: the blood, in the bloodvessels, carries the food to the lymph and our flesh; the cells of which we are made, soaks up the dissolved foods from the lymph.

Germ and very small vegetables and animals obtain their food by soaking it up through their skins from the water around them. Just so our cells take up their nourishment from the water (lymph) that surrounds them. Thus, in a way, we are sea-animals turned inside out, having the salty water inside of us, instead of outside, but getting our nourishment from it in just the same way.

OUR FOOD-GRABBING HANDS.

We use a good many different kinds of meat, fish, birds, vegetables, fruits, nuts, etc., as food, grind them up, digest them, turn them in solution into the blood, and soak them up into ourselves from the lymph. But, after all, these very varying kinds of food contain only a few classes of foodstuffs, protein (the principal foodstuff in lean meat), starch, sugar, fat (and oil), salts, water. These are much changed before they reach the lymph; changed in the digestion in the intestine, and perhaps elsewhere. But although they are changed, still they retain each its chief characteristics.

The thing that makes a food different from other things that pass through the blood in the body is this: a food has a sort of chemical handle that our cells can take hold of. The same thing is true of poisons. Nothing can poison you unless it has a chemical handle that your cells can take hold of. Now, each kind

of food has a different shaped handle, and our cells have many different kinds of chemical hands; one kind for each kind of handle. The hands that can take hold of the protein handle cannot take hold of the carbohydrate handle; and so on. But the same handles that take hold of foods sometimes happen to fit the handles of certain poisons also. Then, if that poison comes along there is trouble.

IMMUNITY TO FOODS.

This is a point we do not see quite clearly yet, but it would appear that foods shade into poisons very gradually: there are not two sharp groups, all the foods, food, and all the poisons, poison. Alcohol is both, according to how much is used, although alcohol is a very poor food, and a very good poison. But the general rule seems to be that as morphine in very small doses will affect greatly those who are not used to it, while by taking it constantly, larger and larger doses become necessary to give results, so foods when first taken are to some extent resented by the body; to a slight degree only it is true. Proteins seem to be the class of foods to which the body most obviously requires a certain immunity: that is, you must take some before you may take more in safety, just as you must smoke and be sick before you can smoke and be well. While this is rather speculative, still it seems to be true in practice that children who "can't eat meat" are children who have not eaten meat already; in brief, that it is, as a rule, foolish to keep meat from a child for fear it is too strong for them or will make them sick. Remember that mothers' milk itself is like meat, largely protein, where it is not water or fat. The practical rule to remember for children is, breastfeeding to one year old; then, gradually, the general foods, until at four the child is happy and content in contact with any adult food.

QUANTITIES.

A previous article pointed out that infants require only one hundred calories from heat-producing food; an adult man 3,000 to 4,000. A child may be gaining weight, red-checked and healthy-looking, when it is getting too much fat, and storing it instead of using it up. A boy from nine to thirteen requires as much as a man, and from fourteen to nineteen, more. Not only so, but the idea that a boy should go short of meat, that only adults should have such "strong food," is quite the reverse of truth. The adult can obtain the heat he needs from fats and carbohydrates, and only a relatively small amount of protein is called for to repair waste. The boy not only must replace a tremendous lot of heat he uses up in many activities (not actually work in the adult sense, but just as truly work so far as his muscles and other cells are concerned), but he must repair the waste just like the adult; and also, unlike the adult who has stopped growing largely, he must gain on the waste, not merely repair it; and not gain weight just by storing up fat, but by making more and larger muscle, larger bone, more liver, etc. Growing boys need more protein than men.

Girls do not, as a rule, need so much food, nor do they change much from eleven to thirty in their requirements.

H. W. HILL.

(To be continued.)

I believe in a man who takes what he thinks belongs to him, and holds it against the world; in the man who so loves life that he keeps a hearty appetite for it and takes long draughts of it; who is ever ready to come back smiling for another round with the world, no matter how hard he has been punished.—Price Collier.

Nearly all the crime in our army can be traced to intoxication. When our men are removed from the temptation of intoxicating liquor, crime is practically unknown among them.—Lord Wolseley.

The test of manhood comes when we rejoice with those who rejoice; anybody can weep with them that weep.—Dr. Frank Crane.

Fashion Dept.

HOW TO ORDER PATTERNS.

Order by number, giving age or measurement as required, and allowing at least ten days to receive pattern. Also state in which issue pattern appeared. Price ten cents PER PATTERN. If two numbers appear for the one suit, one for coat, the other for skirt, twenty cents must be sent. Address Fashion Department, "The Farmer's Advocate and Home Magazine," London, Ont. Be sure to sign your name when ordering patterns. Many forget to do this.

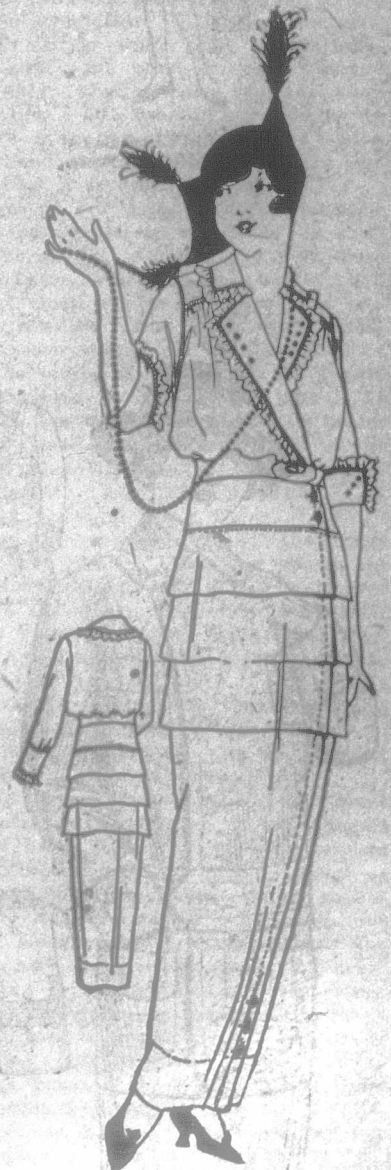
Address: Pattern Dept., "The Farmer's Advocate and Home Magazine," London, Ontario.

When ordering, please use this form:—
Send the following pattern to:

Name
Post Office
County
Province
Number of pattern
Age (if child or misses' pattern)
Measurement—Waist, Bust,
Date of issue in which pattern appeared.



#182 Girl's Dress, 4 to 8 years.



DESIGN BY MAY MANTON.

#8013 Surplice Blouse, 34 to 40 bust.
#8123 Three-Piece Skirt, 22 to 32 waist.



DESIGNS BY MAY MANTON.
8150 Semi-Princesse Dress for Misses and Small Women, 16 and 18 years.
8160 Semi-Princesse Dress for Misses and Small Women, 16 and 18 years.



DESIGN BY MAY MANTON.
7914 Girl's Russian Dress, 8 to 14 years.



DESIGN BY MAY MANTON.
8008 Cutaway Coat, 34 to 40 bust.



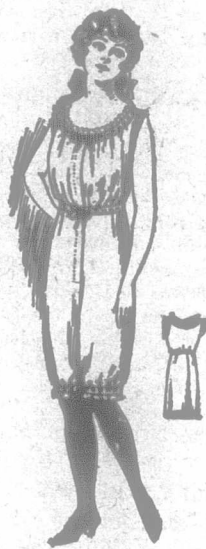
DESIGN BY MAY MANTON.
8195 Fancy Blouse, 34 to 40 bust.



8188 Girl's Low Bed Dress, 10 to 14 years.



8186 Child's Dress, 6 mos. or 1 and 2 years.



8187 Combination Drawers and Corset Cover for Misses and Small Women, 16 and 18 years.



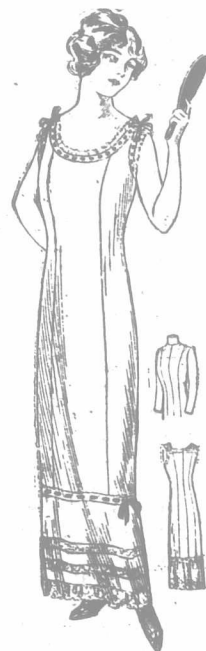
8144 Child's French Blouse Dress, 4 to 8 years.



8058A Sports Coat, 34 to 44 bust.



DESIGN BY MAY MANTON.
8141 Short Coat, 34 to 40 bust.



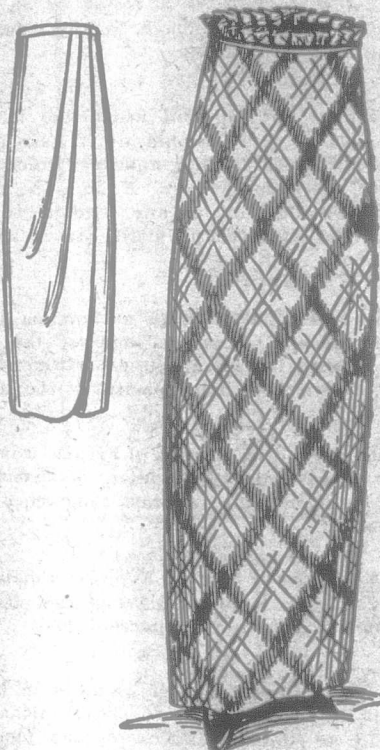
8139 Semi-Princesse Slip, 34 to 44 bust.



DESIGN BY MAY MANTON.
7965 Cutaway Coat, 34 to 44 bust.



8073 Two-Piece Draped Skirt, 22 to 30 waist.



8002 One-Piece Skirt, 22 to 30 waist.



DESIGN BY MAY MANTON
8069 Coat with Empire Front and Belted Back, 34 to 42 bust.



8167 Boy's Box Coat or Recker, 4 to 8 years.



8161 Bath Robe for Misses and Small Women, 14, 16 and 18 years.

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,—Now that gardening and all the happy problems and suggestions of the open fields are in the air, it has occurred to me to tell of a book that I have been reading, lately, published by the way, by the Macmillan Company of Canada, Ltd., Toronto, at the price of \$1.25. The name of the book is "The Valley of the Moon,"—attractive that, isn't it?—written by Jack London, who has forged his way ahead as one of the most popular novelists of the day; a writer of the open air, and the open road, and the wild things of field and forest,—worthy to rank with such lovers of animal life as Chas. G. D. Roberts, W. J. Long, and Ernest Thompson Seton, as those of you who have read "White Fang" and kindred volumes will recognize.

In "The Valley of the Moon," however, Jack London confines himself most of all to humans, after all, the most fascinating of life studies. It is a story of California, a story that revolves about a class of people of which you, on your farms, and I in my office, know next to nothing. The scene opens in a reeking city laundry, where girls, smothering in steam and heat, sweat over ironing dainty white things for more fortunate women to wear. It shifts to the street, to a sordid home, thence to a Bricklayers' picnic and dance which come as a breathing space into many workworn lives, and where, incidentally, the two main characters of the story, Saxon and Billy, meet, as young folk will.

Billy has been a prize-fighter, and he talks all the slang in the calendar, all that has been invented up to the very last Twentieth Century minute, as, indeed, do nearly all of the men and women who float through these first pages, before "the valley of the moon" is reached; but you recognize him at once as one of Nature's gentlemen, and you are prepared to find that before long he gives up prize-fighting.

Saxon, too, is a fine woman to the core—in fact, quite the finest character in the book. With few opportunities, she knows and feels the "fine things" of

life, and when Billy for a time lapses—for Jack London is too true to life to bar out the possibility of that—she stands "game" and is his saving angel.

There are horrible events following upon a strike, so realistic that one seems to be in the midst of it. Indeed, from start to finish, the book breathes real life,—there is not a stuffed figure in it. The men are real men, the women are real women, and the circumstances are such as might occur in any large city of to-day.

Inevitably, during and after the strike, everything connected with this reeking phase of city life falls, for a time, into chaos. Saxon is sick of it all, and thus it is that she proposes to Billy, now her husband, that they go "over the hills and far away" in search of land.

Like two precious innocents they start out, with a knapsack, a kettle or two, a few dollars, and a ukulele, heading straight for the country, and the latter half of the book is given up to an account of their wanderings and their revelations as they go on under blue Californian skies. They pass through the farming districts taken up by Portuguese, Japanese, and Chinese, where the land is given over to intensive culture and so enriched, and worked, and cropped, that ten acres yield as much as fifty cultivated by ordinary, wasteful, American methods. They notice how, in the vegetable gardens, crop is made to succeed crop, in the same season; they are impressed with the constant tillage,—the people seem to be "always turning over the land,"—and they learn much, especially from a Mrs. Mortimer, who has made a small fortune by using her head even more than her hands. Eventually they drop among a crowd of simplifying folk, artists and great writers, to whom intellect means more than possession of mere things. Everywhere they learn, and strike balances, and so, eventually, they reach their "Valley of the Moon," as sane as people may be who have seen all sides of life.

One wishes, toward the end, that Billy would drop a certain favorite expletive that comes to his lips all too frequently, and one wishes that Mr. London had not made things quite so easy by bringing in a convenient landslide to expose a hillside of "paying" brick-clay; nevertheless, the book is one of exceptional interest. If you think you are tired of country-life, read it. It may be salutary,—and suggestive. Incidentally, it may help you with your gardening.

JUNIA.

LIVING-ROOM FURNITURE.

Dear Junia,—Please state in "The Farmer's Advocate," what furniture should be found in a living-room, and oblige
A FRIEND.
Halton Co., Ont.

Put in a living-room anything that adds to comfort and enjoyable living: comfortable chairs, a couch with cushions, a good, strong table for books and papers, a bookcase for favorite books, and the piano. Have saak-curtains, a "fireplace" if possible, and a few pots of flowers, also a few good pictures (paintings or prints) on the walls, but eschew bric-a-brac and gimcrackery as you would poison. Fragile vases, junk, and footstools that fall over at the sweep of a skirt, have no place in a living-room.

TO REMOVE TAN.

"An Interested Person," Parry Sound, Ont., wishes a recipe for an application to remove tan—"March-wind tan." Wash the face every night with a mild soap and warm water, rinse well, dry, and apply at once a little lemon juice mixed with a little buttermilk or cream. Before going out into the wind, rub a little good, cold cream into the skin, and dust with powder. . . . A few drops of tincture of benzoin added to the water in which the face is rinsed is very good; a still stronger bleach is peroxide of hydrogen, applied pure or very slightly diluted. The latter, however, has a tendency to dry the skin if used too often. It should never be permitted to touch hair or eyebrows, as it will take the color out of them.

BUFFALO MOTHS—COCOA PIE.

Dear Junia,—Housecleaning time will soon be here, and I come to you for help. Can you tell me what is a good thing to use in wiping out wardrobes and dresser drawers, etc., to prevent

buffalo moths from making their homes there?

Here is a recipe for cocoa pie. I have not noticed it in the paper. One cup milk, ½ cup brown sugar, 2 tablespoons cornstarch, 1 egg, 2 teaspoons cocoa. Cook. Use white of egg for top.

Can you give a pattern of crochet bedroom shoes, with soles crocheted, too? Peel Co., Ont. B. C.

I know of no preparation which, used as you say, will keep out buffalo bugs. The best security against them is to pack the clothing in tight cedar chests whose covers fit very closely. I had one of these made at a planing mill last year, and found that it cost less than those made ready for sale, which run at about \$18. Cedar boughs and plenty of moth-balls scattered among the clothes will be found helpful against buffalo bugs, and certainly against ordinary moths. An uncorked bottle of chloroform is also recommended, but I should be much afraid to use that lest someone might forget about it and be overcome by the fumes. By the way, I have been assured that the constant use of a vacuum cleaner in a house will effectually eradicate all kinds of moths, the buffalo species included.

A plentiful use of benzine or gasoline will kill both buffalo bugs and their eggs, should they appear, but if you use it, do be careful that doors and windows are open, that there is no fire or light about, and that no one is permitted to light a match or come in with a lighted pipe or lamp until the fumes have been completely evaporated. The fumes of gasoline are very inflammable, and explosions causing death and suffering, and much loss of property, have often occurred through just neglecting to be careful in this particular. The application may have to be repeated at an interval of about a week to catch any stray specimens that may hatch out.

I have no pattern of bedroom shoes with crochet soles, but should imagine that the soles could be very easily done in plain, tight crochet.

FROM SCOTCH LASSIE JEAN.

Dear Junia,—Hello, once more! Although I have not written for some time, I have read with interest all the letters. I was a school teacher for eleven terms, and can sympathize with the teachers in their little trials and tribulations. Girls, keep your mind on your "Sun," your duty, that which regulates your day's life. Of course, our duty as teachers is a pleasure when we have God's hand guiding; if not, why are you pretending it is your duty at all?

If ever at our daily task the Sunshine is not on our faces, we should be careful what we do. It is in our dark hours of darkness, when anger, hatred, bad temper, cloud the countenance that evil things are said and done which cause bitter heart-rending and penitential tears.

In the course of my wedded life I have found this to be comfortably true: As long as the Sunshine glows and beams on my face, troubles keep their places behind, where they worry not, nor make me stumble. Also, each dark cloud has a most beautiful silver lining.

After the excitement and the busy worry and toil of the day comes the beautiful twilight, and although mother is tired and weary, the voice and prattle of the little ones cheer her on her way.

We should all prize our teachers if they are faithful to their duty. Our child's character is moulded by the teacher at the day school, as he spends most of his time in her presence and the happiest part of his life is at school.

I had a very busy fall, and our home has been sadly afflicted, my husband's mother being paralyzed, entirely helpless and speechless, and O, how it makes us stop and think why these things should be! But God moves in a mysterious way. He gave us strength to bear the Cross, no matter how heavy to bear, and the neighbors all gave a helping and willing hand, and I believe, although Old Onslow is behind in not having a telephone, daily mail, or train service, she can boast of having the most God-like people I know of anywhere. We have proved it twice. When we lost our little darling, Kenneth, aged two years, we were all as one family, and now this fall we are the same old family again, so many willing hands to help. So, readers, always lend a helping hand when your friend needs it, to care for the helpless, that is in sitting to care

Diamond Dyes Give "Perfectly Splendid Results" and a "Fresh from Paris" Look

Mrs. K. B. Jackson writes—

"My daughter Julia had a light Alice Blue suit that my sister in Hartford gave her for her birthday present. Although the material was of excellent quality it soon faded in spots and became mussed looking.

"Julia felt badly for the suit fit her beautifully and it was a really handsome one.

"I had made up my mind that I would have to do without something and spend the money so saved on a new suit for her, when one of Julia's friends said, 'Why don't you dye it with DIAMOND DYES.'"

"The next day I bought a package of DIAMOND DYES for Wool and Silk and dyed the suit dark blue. The result was perfectly splendid. We were so pleased that I felt we could spare some of the money DIAMOND DYES saved for us to have Julia's photograph taken. I send you one showing the new DIAMOND DYE suit."

Diamond Dyes

"A child can use them."

Simply dissolve the dye and boil the material in the colored water.

Mrs. Elbert Young writes—

"I send you my picture taken in a broad-cloth suit which I re-colored with DIAMOND DYES. It was originally a tan suit and because faded I dyed it black. I cut the coat which was long, and altered it into the modish short coat you see in the picture. I also dyed a white cigarette which I had, and bought some white velvet and made the hat which I am wearing in the photograph.

"My friends tell me the suit and hat are stunning creations and that they look a s though fresh from Paris. Perhaps you will think enough of my handiwork to use my photo in your advertising."

Tan Broad Cloth dyed black.

Truth About Dyes for Home Use

There are two classes of fabrics—Animal Fibre Fabrics and Vegetable Fibre Fabrics.

Wool and Silk are animal fibre fabrics. Cotton and Linen are vegetable fibre fabrics. "Union" or "Mixed" goods are usually 60% to 80% Cotton—so must be treated as vegetable fibre fabrics.

"It is a chemical impossibility to get perfect color results on all classes of fabrics with any dye that claims to color animal fibre fabrics and vegetable fabrics equally well in one bath."

We manufacture two classes of Diamond Dyes, namely—Diamond Dyes for Wool or Silk to color Animal Fibre Fabrics, and Diamond Dyes for Cotton, Linen or Mixed Goods to color Vegetable Fibre Fabrics, so that you may obtain the Very Best results on EVERY fabric.

Diamond Dyes Sell at 10 cents Per Package. Valuable Book and Samples Free.

Send us your dealer's name and address—tell us whether or not he sells Diamond Dyes. We will then send you that famous book of helps, the Diamond Dye Annual and Direction Book, also 36 samples of Dyed Cloth—Free.

THE WELLS & RICHARDSON CO., LIMITED
200 Mountain Street, Montreal, Canada.

for the sick and help with daily toil of the day.

When we see homes bereft of a parent or child, we must see God afflicts for some good cause, and we must bear his cross cheerfully day by day and receive our crown at last.

I must send you some little helps for some other little school ma'ams who have settled down to the sturdy work of the farm.

Gingersnaps.—Put 2 cups molasses, 1 of brown sugar, 1 cup shortening (butter or drippings), 1 teaspoon each of cloves, allspice, cinnamon, soda, ginger and lemon, and let them boil five minutes, then cool and put in 1 cup sweet milk and 2 teaspoons cream of tartar, and flour to make stiff batter, or dough to roll and cut in cakes. Cook in moderate oven.

Cookie Jam Jams.—One cup butter or dripping, $\frac{1}{2}$ cup lard, 1 cup granulated sugar, 2 eggs, $\frac{1}{2}$ cup sweet milk or cream, 1 teaspoon vanilla, 1 of soda, and 2 of cream of tartar. Mix pretty stiff with flour, roll thin, and bake in moderate oven, and place jelly between the cookies, and you have excellent jam-jams.

This is all I'll send now, as I don't want to tire you completely.

SCOTCH LASSIE JEAN.

Onslow Cor., Quebec.

Seasonable Recipes.

Orange Marmalade.—To 6 large navel oranges, add 3 medium-sized grapefruit and the juice of 6 lemons. Cook the grapefruit and oranges (whole) separately in water to cover, until soft enough to be pierced easily with a fork. Leave over night in the water in which they were boiled, and in the morning cut the grapefruit in halves, scoop out the pulp, and press through a colander to remove seeds and core. Shred the rind with a sharp knife. Cut the oranges in slices, saving all the juice. To the shaved skins and pulp of all, allow 2 quarts cold water. Now measure, and add one and one-half times the quantity of sugar, having both sugar and juice hot. Add the lemon juice, cook until the syrup is thick, then pour into glasses.

Prune Pudding.—Soak $\frac{1}{2}$ lb. prunes for 2 hours in cold water. Cook in same water until soft. Remove stones and cut prunes in small pieces, then sprinkle with $\frac{1}{2}$ cup sugar. Beat whites of 3 eggs stiff and add prunes gradually. Pour into a buttered pudding-dish and bake 25 minutes. Chill and serve with custard sauce.

Spiced Apples.—Select 6 medium-sized, perfect apples. Cut in halves and lay in a baking-dish. Pour in the dish 1 cup hot water, sprinkle over them $\frac{1}{2}$ cup light-brown sugar, a dash of salt, $\frac{1}{2}$ teaspoon ground cinnamon, and $\frac{1}{2}$ teaspoon ground cloves—the sugar, salt and spices to be mixed together first. Just before placing in the oven, turn into the dish the juice of 1 lemon and a level tablespoonful butter. Bake, covered, for $\frac{1}{2}$ hour, then remove the cover and bake 15 minutes longer in top of oven. This is nice served with meat, especially pork.

Boiled Cider Pie.—Bring to a boil 4 cups cider and 1 of sugar; stir in 2 tablespoons cornstarch blended with 1 well-beaten egg. Cook until thick, flavor with juice of a lemon, fill pastry, and bake. When nearly done, cover with meringue made with whites of eggs, and brown.

Plain Custard Pie.—Beat 2 eggs very light, add slowly 2 large tablespoons of sugar, 2 cups milk, and a pinch of salt. Add lastly a tablespoonful of melted butter, pour into the pastry-lined tin, grate a little nutmeg over, and bake in a slow oven.

Scalloped Tomatoes.—Place a layer of crumbs in a buttered pudding-dish, then a layer of tomatoes, and continue alternating crumbs and tomatoes until all are used, having crumbs on top. One can of tomatoes and one cup of crumbs will be needed. Sprinkle each layer with salt and pepper, and dot with bits of butter. Bake for half an hour.

Potato Rissoles.—Season 1 quart hot mashed potatoes to taste, with salt, pepper, butter, and a little hot cream. Add a well-beaten egg, and mix in thoroughly 2 cups finely-minced cold lamb, or other meat. Form into balls, roll in egg, and then in sifted breadcrumbs, and fry in deep fat. Serve very hot, garnished with parsley or lettuce leaves.

News of the Week

The Late Sir George W. Ross.

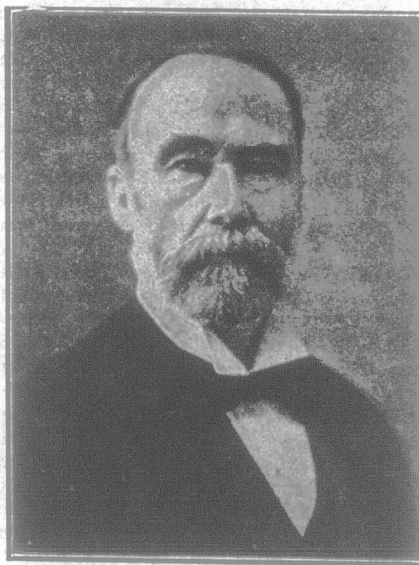
One by one they pass away, that fine old group of eminent statesmen and educationists, who have done so much toward the building of Canada, towards placing her in the proud position which she holds to-day with the great countries of the earth on the broad road of progress. Macdonald and Brown, Strathcona and Cartwright, Ryerson and Goldwin Smith,—so the long ranks file into the perspective of the past. Not men of the long ago, these, and many, many others, yet pioneers, for our country is still young.

The last to pass over with the others was Sir George W. Ross, who died in the General Hospital, Toronto, on March 7th. Noted as a politician, yet more as an educationist, Sir George placed the imprint of his personality strongly on the fortunes of Canada, most of all on those of the Province of Ontario.

He was born near Nairn, Middlesex Co., Ont., on Sept. 18th, 1841, and began his long and eminent career as a public-school teacher, working his way thus, as so many brilliant men of the new world have done, to a University course, to the Bar (although he never practiced), and finally to statesmanship.

Early in his career he became known as an orator of exceptional ability, yet journalism offered him a more steady avenue for expression than even oratory could provide, and so it was natural that eventually he should drift into editorship. The Strathroy "Age" was the first paper that came under his control; subsequently he edited the Seaforth Expositor, and founded the Ontario Teacher. For a time, too, he was a director and one of the shareholders of The Globe.

In 1871 he was appointed inspector of public schools for Lambton County, and in 1877 became Provincial Inspector of Model Schools. In 1872 he was returned as member of the House of Commons for West Middlesex, a position that



The Late Sir George W. Ross.

paved the way for his appointment as Minister of Education for Ontario in 1883, a post which he held until 1899.

From 1899 to 1905, he was Premier of Ontario, and from May, 1913, until his death, was leader of the Opposition in the Senate.

A Liberal, an Imperialist, but above all things a Canadian, Sir George was for many years in the foremost ranks of Canadian politicians, and not always was his voice heard from the platform of the party with which his name has been connected. For instance, he was of late years strongly opposed to reciprocal relations with the United States, although he supported as strongly Laurier's naval policy for Canada.

During his long public career he was identified, most of all, with educational movements, ranging from the establishment of kindergartens and uniformity of text-books, to University extension and

the institution of our system of free public libraries. He was also the author of several books, chiefly educational, among which may be mentioned "The History of the School System of Ontario," "Formative Influences in Canadian History," "The Making of the Canadian Constitution," "Shall Canada Be Always a Dependency of the Empire?" and "The Historical Significance of the Plains of Abraham."

Among many other connections in which his influence was exerted may be mentioned the construction of the Timiskaming & Northern Ontario Railway, and the passing of an Act enabling municipalities to unite for the purpose of utilizing Niagara power for electricity.

He was knighted by King George V in 1910.

During recent experiments in wireless telephony conducted by Signor Marconi, messages from Canada were received by vessels off the coast of Sicily, 4,063 miles away.

Over 1,000 were drowned on Saturday by a large wave from the Sea of Azof that overran two towns in the Province of Kuvan, Southern Russia.

The volcano Asama-Yama, 90 miles from Tokio, has been in eruption the past few days. As a result of an accompanying earthquake, many people have lost their lives.

Part of the pig-iron which the R. D. Wood Co., Philadelphia, will make into pipe for their Italian aqueduct contract, is to be from Sydney, N. S., the first foreign-made iron of any amount to be imported into the United States under the new tariff.

The Czar and Russian authorities have undertaken a campaign against the use of alcohol in the army, experiment having shows that it incapacitates the men.

The Patriotic League of French women, led by several titled ladies, is undertaking a campaign against indecency in dress.

The United States Express Company is giving up business, having been driven from the field by the parcels post.

All the important art galleries in England are being closed to the public as a result of the mutilation of the famous painting by Velasquez, the "Bokeby Venus," by a suffragette, who managed to convey a hatchet into the National Gallery.

The King declined to receive the deputation which Mrs. Pankhurst planned to send before him, reviving the ancient right of a subject to petition the Sovereign.

It is reported, at time of going to press, that Major Rudolfo Fierro, one of General Villa's subordinate officers, has been arrested as the slayer of William S. Benton, the British subject in Mexico who met his death when he went to interview General Villa in regard to the protection of his property.

Premier Asquith's proposed concessions to Ulster, announced on March 9th, have been received with satisfaction nowhere. Mr. Redmond has declared that they do not please the Irish Nationalists, while Mr. Bonar Law has declared even more emphatically that the Unionists are unalterably opposed to Home Rule in any form. The proposal was that before the Home Rule Bill became operative, a poll should be taken of the Parliamentary electors of each county, to decide whether there should be an exclusion of the Ulster counties from the provisions of the bill for six years. When making the announcement, Mr. Asquith said that those who have supported the Home Rule Bill as originally drafted are as convinced as ever of the soundness of its principles; they believed in Irish self-government, and that if it were placed on the statute-books as it stood, its operation would involve no injustice or oppression.

GOODS SATISFACTORY TO YOU OR MONEY REFUNDED, INCLUDING SHIPPING CHARGES. NO EXCEPTIONS

EATON'S

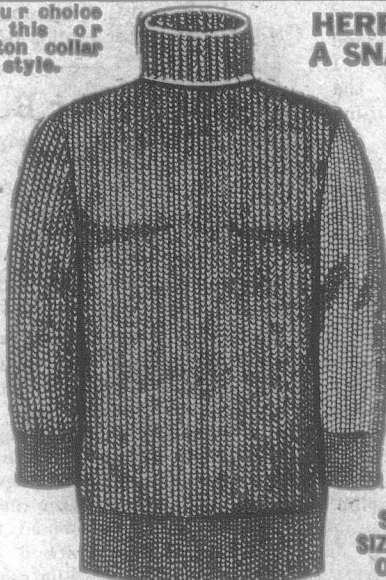
FREE DELIVERY WE PREPAY SHIPPING CHARGES ON 10.00 ORDERS AND OVER

WEEKLY MAIL ORDER BARGAINS

As a bargain event this week's offering should create wondrous interest. A hurried glance will quickly prove how big a saving is within your reach if you will but use the opportunity. No one can afford to let such a chance go by. It is undoubtedly a bargain sale in the strictest sense. Order at our risk, because the EATON guarantee protects you: "GOODS SATISFACTORY TO YOU OR MONEY REFUNDED, INCLUDING SHIPPING CHARGES. NO EXCEPTIONS."

Your choice of this or button collar style.

HERE'S A SNAP



STATE SIZE WITH ORDER

BIG SWEATER BARGAIN 69c

THERE WILL BE ONE GRAND RUSH FOR THIS

40-A72. Share in this bargain of Men's Pull-over Sweaters or Wesouts, made with high collar, neat stitch, close ribbed cuffs and skirt, medium winter weight, will give excellent wear. We are clearing them out at almost half price. We have only a limited quantity of these in Grey or Navy. Sizes 36, 38, 40. Order early, and secure yours while they last. Each **69c**

EXTRAORDINARY VALUE IN MISSES' and CHILDREN'S DRESSES

NO ONE SHOULD MISS THIS



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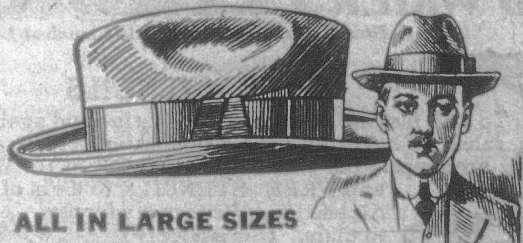
3.95

A RUSH SALE OF MISSES' DRESSES

56-A62. "Must be Cleared, and Soon" is the slogan for two hundred of these stylish One-piece Dresses, made of a superior All-wool Serge, closing in front, and trimmed with black and white Shepherd check, and buttoned braid tabs. Sizes for misses of 14, 16, or 18 years, or for small women in bust 32, 34, or 36. Length of skirt 37 inches, with deep hem. **3.95** Black, or Navy. Clearing price.....

A BARGAIN OFFER IN CHILDREN'S DRESSES

58-A70. Astonishing is the value offered in this Child's Dress of strong All-wool Navy Serge, made in kilted Balkan style, closing in front. The waist and sleeves are lined with percaline; the tie and pipings are of plaid silk. Sizes for 2, 3, 4, or 5 years; lengths 21, 22, 24 or 25 inches. Clearing price, each **1.69**



ALL IN LARGE SIZES

HALF PRICE SALE OF MEN'S HATS EACH 50c

42-A26. 125 Dozen Men's Soft Felt Hats, in fashionable dressy shapes, as shown in above illustration, made of fine quality English wool felt, in the popular shades of Brown, Medium and Dark Grey and Heather Mixture, trimmed with corded silk bands to correspond with shade of hat, and leather sweats. This is a buying opportunity rarely offered, and would suggest you order now. (No orders filled for sizes under 7.) Sizes 7, **50c** 7 1/8, 7 1/4, 7 3/8 and 7 1/2. Half price, each



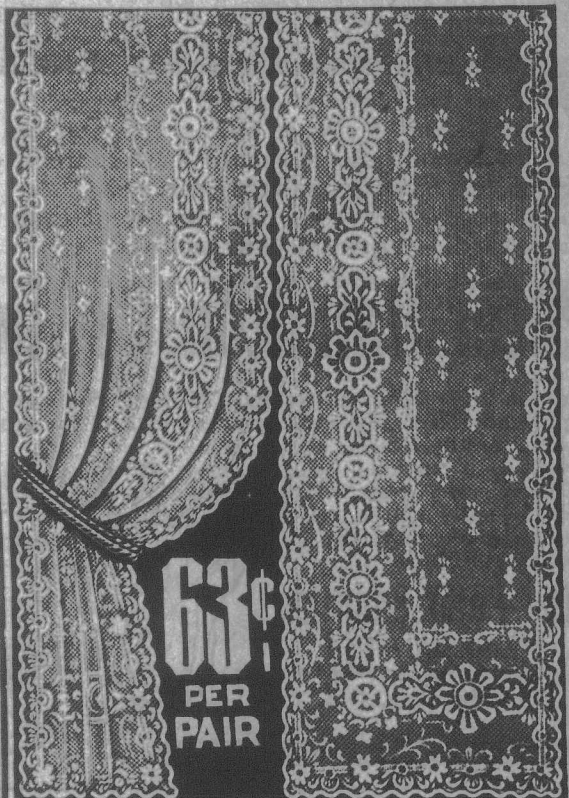
A BIG VALUE 1.19

THRIFTY HOUSEWIVES WILL WELCOME THIS BARGAIN

600 CROCHET BEDSPREADS at 1.19 Each

49-A01. Seldom have we offered such outstanding value as this Canadian-made Crochet Bedspread. It is extra large size, measuring 75x92 inches. Will launder beautifully.

A Great Big Bargain, Each **1.19**



63c PER PAIR

THIS DAINTY CURTAIN 63c WELL WORTH DOUBLE THIS PRICE, per pair

60-A668. A value extraordinary in a Lace Curtain, 50 inches wide, 3 yards long, in White and Ivory. Very choice design, in floral and insertion. Stripe border, with medallion and spot centre. Make no mistake. Order one or more pairs. You'll be glad you did so when your purchase arrives. ORDER NOW AT **63c** THIS PRICE. Per pair.....

THE T. EATON CO LIMITED TORONTO CANADA

SEE OUR SPRING AND SUMMER CATALOGUE FOR OTHER BIG VALUES

The Beaver Circle

Our Senior Beavers.

[For all pupils from Senior Third to Continuation Classes, inclusive.]

A Spring Time Wish.

(By Isabel Ecclestone Mackay.)

O, to be a robin
In the Spring!
When the fleeting days of April
Are a-wing,
And the air is sweet with knowing
Where the hidden buds are growing,
And the merry winds are going
Wandering!

O, to be a robin
With a nest
Built upon the budding branches—
East or West!
Just to swing and sway and dangle
Far from earth and all its tangle,
Joining in the gay bird-jangle
With a zest!

O, to be a robin—
Just to sing!
Not to have the pain of hating
Anything—
Just to race the foremost swallow
Over hill and over hollow—
And the joy of life to follow
Through the Spring!

Funnies.

AN ACT OF KINDNESS.

Marjorie, aged five, had been given some chocolates of various sizes. Picking up a little one, she said: "This is a baby chocolate"; and of a large one: "This is a mama chocolate." She then swallowed the little one, and lifting the larger chocolate to her mouth to eat that also, she said: "Don't cry, baby, your mama is a-comin'!"—Boston Transcript.

Inspector—Now, children, what do we mean when we say "on an average"?
Johnny Tuckham—Please, sir, average is a thing that a hen lays eggs on.

UNRESERVE AUCTION SALE

Imported and Canadian-bred Clydesdale Fillies, Registered Aberdeen-Angus and Holstein Cattle. Also other Farm Stock and Implements. Property of Henry Hulse, Newmarket, Ont. Sale to be held, Thursday, March 26th, 1914, on Lot 2, Concession 2, East Gwillimbury, 1/4 mile from G.T.R., and Metropolitan cars. Write for further particulars.

H. HULSE
NEWMARKET ONTARIO

Please mention "The Farmer's Advocate."

It Won't Rub Off

VISIT the finest hotels, the costliest homes, and you will find Alabastined walls. Alabastine is used in these palatial places, not because it is the most expensive wall-decoration, but because it is the most artistic and effective. An Alabastined wall is a delight to the eye—so soft, velvety and beautiful. It will not rub off or fade. Alabastine is cement, and hardens with age. Its beauty is permanent. It is the most sanitary and inexpensive wall coating known. Alabastined walls are now the general vogue, in cottage and mansion alike. Wall Paper is out of fashion. The sales of Alabastine in Canada have doubled in two years.

CHURCH'S Alabastine

None Genuine without Little Church on Label

FREE STENCILS

To still further popularize Alabastine and again double its sales, we have organized a Decorative Department, and are prepared to offer FREE COLOR SCHEMES and FREE STENCILS to users of Alabastine. Write today for particulars. Our advice is free. Let us help you to beautify your home at a moderate cost.

Please send free particulars of your Color Scheme and Free Stencil offer to

Name.....
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The Alabastine Co., Ltd., 31 Willow St., Paris, Ont.

Will it be a Dry Season?

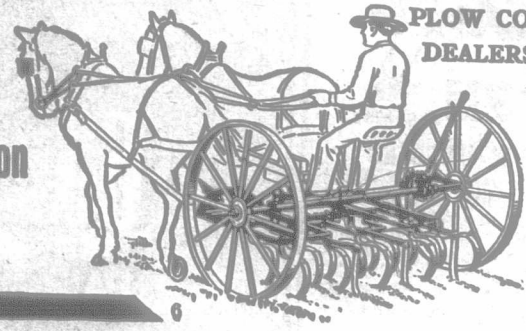
You don't know—nobody knows. But if you take the precaution of proper tilling you will have as little to fear from insufficient moisture as hundreds of users of Peter Hamilton Cultivators last year. Good seed deserves better treatment than simply planting it haphazard. Work up your soil with a

Peter Hamilton Cultivator

Sold by all JOHN DEERE PLOW CO. DEALERS

and you'll get improved results. All teeth cultivate to the same depth and thoroughly work up every inch of the ground. Every tooth reinforced, each section of heavy steel. See this splendid implement before investing in any cultivator.

The Peter Hamilton Company, Ltd.
Peterborough, Ont.



A SNAP

Manure Loaders for Sale at Half Price

I beg to announce that I have purchased from The Renfrew Machinery Co. Limited, their entire stock of manure loaders and I am going to sell them at half price. These machines have never been used and are in first class condition. This machine has given entire satisfaction wherever used. First class testimonials from users all over Ontario.

For prices and further particulars, apply to


FRED GEORGE, P.O. Box 141, Renfrew

"STOP! HERE'S A DYER FENCE!"

It's strong. It's rust-proof. It's durable. Dyer's price outstanding is more than ever sensational. Get my prices sure before you buy. I've saved you dollars before; I'll save you more this year. Sign the coupon and I send you my full prices.

Name &.....
Address.....

Dyer The Fence Man, 47c East Wellington St., Toronto
(Out for himself and you—no connection with any company)



Inspector—I don't understand, Johnny; please explain to us what you mean.
Johnny Tuckham—Please, sir, the teacher says that a hen lays one egg a day on an average.

Senior Beaver's Letter Box.

Dear Puck and Beavers,—I suppose all the Beavers will be glad when spring comes, and the grass, and everything that Nature's garden can hold, has started to grow. I shall be glad when I will be busy working at my garden. I got a book for my competition; the name of it is "Tales from Shakespeare." Many thanks, Puck. I am a lover of books. The names of books I have read are: "Gypsy's Cousin Joy," "Little Women," "Playtime and Seedtime," "Child Life of Christ," "In Nature's Workshop," and many others.

I suppose all the Beavers had a good time during the Christmas holidays? I did. We had a Christmas-tree at the school. There was a very entertaining programme, and I think everybody enjoyed it.

I wish Puck would have a drawing competition. I like drawing best of all my subjects. I am trying for the Junior Fourth Class. I hope I pass. I like going to school, and would not stay home a day if I could help it.

Well, I guess I will close, as my letter is getting rather long, hoping we have a drawing competition, and that this letter escapes the monster waste-paper basket.

MABEL GUNNING.
(Age 11, Book Sr. III.)

Science Hill, Ont.
We will have a drawing competition some day, Mabel.

Dear Puck and Beavers,—This is my first letter to your charming Circle. We have taken "The Farmer's Advocate" for fifteen years. One day, as I was coming home from school, we went out on the creek and found a lot of small fishes. We picked them up and put them in our dinner-pails with some water. We found them with an inch of ice on top, then about a foot of water, and then more ice. I brought thirty home, and only four died. I have one fish I call Whiskers, and I feed my fish with bread crumbs. I guess I will close. Wishing the Beavers every success, I remain yours truly,

ANNIE EASTWOOD.
(Age 11, Book Sr. III.)
Gananoque, Ont., R. R. No. 3.

Dear Puck and Beavers,—May I join your charming Circle? My father has taken "The Farmer's Advocate" for over a year. We all like it fine. My little brother has it first when it comes. We have the rural-mail delivery. The mailman's name is Mr. Lee. My teacher's name is Miss Kennedy. I haven't missed a day since New Year's going to school. I have only seen one person's name in the Circle that I knew, and that was Lucile Glass. She and I are in the same class at school. We have a dog; his name is Bruno. I had a little, tiny kitten; its name was Malta, but a box fell on it and killed it. I felt so sorry for it. We have two pet rabbits; they have their hole in the wood-pile. I like one of our colts very well; it will let me do anything for it. If I see my letter in print I will write again. Your little Beaver,

VERA ST. CLAIR.
(Age 13, Class Sr. IV.)
Thorndale, Ont., R. R. No. 3.

Dear Puck and Beavers,—May I join your interesting Circle? I read the Beavers' letters every week. We live one mile and a quarter from town. We have some strawberries and raspberries. The school is right next to our farm. We live on a small hill, and have great fun sleigh-riding in the winter. In our garden last summer we had nasturtiums, phlox, sweet peas, pansies, and asters. I will close with a few riddles. Here they are:

What eats and eats, and never gets full? Ans.—An engine.

As I went over London bridge, I met a London scholar; he drew off his hat and drew off his glove; what was the name of the scholar? Ans.—Andrew.

Wishing the Beaver Circle every success.

EVA FLOTO.
Port Elgin, Ont., R. R. No. 1.

Dear Puck and Beavers,—This is my first letter to your charming Circle, and I hope it shall escape that monster w.p. b. I live on a farm of about one hundred and fifty-six acres. We have a large apple orchard, but did not have any apples last year on account of the frost and caterpillars. I am a book-worm. I have read quite a few books, such as, "Adventures of a Brownie," "Robinson Crusoe," "Little Nell," etc. I read the stories in "The Farmer's Advocate," and wish there would be another story like Rebecca of Sunnybrook Farm. As my letter is getting rather long, I think I will close, wishing you and all success, and that some of the Beavers of my own age would write me. My father has kept every "Advocate" since he became a subscriber.

ALLAN McDONALD.
(Age 14, Continuation Class.)
North Lancaster, Ont., Box 25.

Our Junior Beavers.

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

The Twins.

[A story written for the Junior Beavers, by Mary Pollard, Harrow, Ont.]

There was once a man and a woman who lived happily in the woods with their twins, Rachel and Raymond. The parents had occasion to go to town, and the children thought they could keep house, which they had often done before. They bade their parents good-bye, got supper, and while eating heard a rap at the door. Rachel opened the door and asked the lady who stood there to have supper with them. She came in and sat down. As she ate, she pulled from her pocket a magic wand and touched the children, who at once became foxes and ran into the woods. When their parents came home and saw that their beloved children were gone they were very much grieved. Rachel and Raymond lived in a cave. One day their father was out gathering mushrooms, and seeing a storm coming up, went into the cave where Rachel and Raymond were. They both came to meet him, and licked his hands and put their paws up to his face. The father, seeing the signet rings on their claws with his children's initials on them, knew that they were his children. When the storm was over he took them home and cared for them for many days. Their mother one night left a pencil on the table, and in the morning the parents found a note on the table saying if they boiled cider for them they could recover their human shape. The parents boiled cider for them, and in a few minutes they became their human shape. The children told their parents the story of the wicked fairy.

Dear Puck,—This is my first letter to the Beaver Circle. I have enjoyed reading the Beavers' letters ever since my papa has taken "The Farmer's Advocate." I have two brothers; their names are Randolph and Byron; one of them is five and the other is three. I go to school, and am in the Third Reader. Our teacher's name is Miss Millar. I live on a farm along the Restigouche River. We have a beautiful lake on the back of our farm. We catch trout in it. The river is lined with smelt fishers now (in January). Fishing and lumbering are the principal work for the winter months. I shall not take up any more space. Good-bye.

ANNIE M. HICKS (age 9).
Dalhousie Junction, N. B.

Dear Puck and Beavers,—Well, is there room for another Beaver to join your Circle? My father has taken "The Farmer's Advocate" for a long time. I have four brothers and one sister. Three of my brothers and myself go to school every day.

It is pretty cold to-day, and is snowing, too. We had pretty cold weather for a while.

My father has a sugar-bush, and he makes maple sugar every year. This year he got an evaporator to make syrup with. Hope this will escape that hungry w.p. b.

GEORGINA DUKE (age 10, Jr. III.)

Dear Puck and Beavers.—This is my second letter to "The Farmer's Advocate." As I saw my first one in print, I thought I would write again. My father still takes the paper. I go to S. S. No. 8, in the Township of Kingston. I have read a lot of books. On Saturday nights we play Blindman's Buff. We have six horses and one colt. We also have a lot of cows. We have five calves so far this year, and about forty-five hens. I live on a farm of three hundred and twenty-five acres. We are going to build a new barn this summer; papa is drawing the sand for it. We own a milk route, and my uncle runs it for us. I have to walk three miles to school. We go through the fields, and the snow is up to our knees. I will close now.
 GEORGINA BELL.
 Kingston, Ont.

Dear Puck and Beavers.—This is my first letter to your paper. I am always glad when "The Farmer's Advocate" comes, so I can read the story and letters. I like reading very much. My favorite books are the "Elsie Books." I have read three, and would be glad to get the rest. I have four brothers; no sisters. We all go to school, except the baby, who is one and a half years of age. Our teacher's name is Miss Housien. She is a nice teacher, and we all like her. I live on a farm near Orton, which is my post office, but we do not have to go to the post office, because we have the R. R. No. 1.

I would like if someone of my age will write to me; I will write back. Wishing the Circle every success, I will close, or this letter will be going into the w.-p. b.
 ELSIE M. JESSOP.
 (Age 10, Class III.)
 Orton, Ont., R. R. No. 1.

Dear Beaver Circle.—It is quite a long time since I have written to your Circle, but enjoy reading the letters very much. I go to school every day, and have a mile and a half to walk. Our teacher's name is Miss Fern Graham.

For pets I have a dog named Benny; a cat called Tiger, and a dear old horse called Net. She is twenty-seven years old, and I can drive her any place. Hoping to see this letter in print, I will close with a riddle.

What has its heart in its head? Ans.—Cabbage.

FLORENCE GRAHAM.
 (Age 11, Class III.)

R. R. No. 3, Glencoe, Ont.

Dear Puck and Beavers.—I enjoy reading the Beaver Circle very much. This is my first letter to "The Farmer's Advocate." I go to school nearly every day, and am in the Senior Second Reader. We all like our teacher very much. I have two brothers and three sisters. For pets, I have a little colt; his name is Joe. He is an iron-gray color. He has a white face with a brown spot on it. I am going to get his picture taken and send it to you. My father has a one-hundred-acre farm, and the Wabash Railway runs through it. I will close, hoping some of the Beavers will write to me.
 WILLIE E. GATES.
 Glencoe, Ont., R. R. No. 3.

Book Reviews.

A GARDEN BOOK.—Good, and cheap. Every farm should possess a good garden book, but many who would otherwise be glad to buy such books, are deterred by the high price, sometimes by the bulkiness of the ordinary gardening books on the bookstore shelves. A book that is at once terse, useful, and cheap, is "The Suburban Garden Guide," by Parker Thayer Barnes. (The Macmillan Company of Canada, Ltd., Toronto; price, 50 cents.) In it may be found information in regard to cultivation and best varieties of both vegetables and flowers, methods of eradicating insect pests, and the use of fertilizers. A prominent feature of the book is a comprehensive planting table, and it concludes with easily-understood tables for spraying and pruning.

A CONVENIENT COOK-BOOK.—Another book published by the same com-

pany, at the same price, which will be appreciated both by the housewife and her family, is, "Things Mother Used to Make," by Lydia Maria Gurney, which packs within 110 pages a collection of tried recipes covering everything, from bannocks to piccalilli, including a number of handy hints in regard to all departments of housework. . . In short, after examining these two books, we feel that a dollar could not be spent better than in buying them.

The Ivory Snuff Box.

By Arnold Fredericks.

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Chapter III.

THE SEALED LIPS.

When Richard Duvall and his companion entered the house of the French ambassador in London, it was evident that their arrival was expected.

The detective had no more than given his name to the butler who threw open the door, when the latter, with a bow of recognition, conducted them to a small reception-room to the right of the entrance, and informed them that M. de Grissac would see them at once.

They did not have long to wait. The ambassador, a thin, spare, nervous-looking man of sixty, with white hair and a gray-white mustache, came hurriedly into the room after but a few moments had elapsed, and greeting them excitedly, bade them be seated. He himself remained standing, his back to the fireplace, twirling his eyeglasses at the end of their black-silk ribbon, and observing his visitors keenly.

"M. Lefevre had informed me of your coming, gentlemen," he presently burst out. "We have no time to lose."

"Let us have the details of the affair, monsieur," Duvall remarked, seating himself comfortably in his chair. "So far we are completely in the dark."

"You know, do you not, that a valuable article, a small snuff-box, to be exact, has been stolen from me?"

"Yes. Of that I have been informed," the detective remarked dryly. "I am curious to learn why the loss of an article of so trivial a nature should be regarded with such seriousness."

The ambassador's eyes snapped; he seemed almost to resent the detective's attitude.

"It should be sufficient, monsieur, I think, that it is so regarded. The task before us is to recover it; not discuss the reasons for doing so."

"I disagree with you, monsieur. If the real value of the stolen article is kept from me, how can I draw my conclusions as to the probable object of its theft? Was it intrinsically valuable? Did it contain anything of value? In short, why should any one have taken the trouble to steal it? Tell me that, and I can act intelligently. Otherwise I shall be only groping about in the dark."

"I do not think so, monsieur." The ambassador bent upon Duvall a searching glance.

"The fact that the box is gone should be sufficient. All that I ask is that you recover it. You must trace its disappearance from the material facts of the case. Conjecture will avail us nothing."

"In the box then of no value?"

"I have not said so. As a matter of fact its value is great. It has been an heirloom in my family for many years. At one time it belonged to Cardinal Mazarin."

"You think, then, that its intrinsic-value alone might have promoted the theft?"

"I do think so indeed, I very greatly hope so."

"Why?"

The ambassador recovered himself with a start. Evidently he had said more than he intended. It was some time before he answered the question, and then he did so lamely.

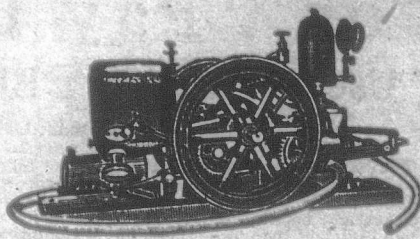
"Its theft by some one interested in its value as a curiosity would enable me to recover it most readily; by the payment, of course, of a sum of money."

"True. But I assume, from what you say, that there might be other reasons; that it might have been taken by those who suspected that it had it another value?"

For a moment M. de Grissac appeared confused. Then he waved his hand impatiently.

"There are those," he said, "who seek

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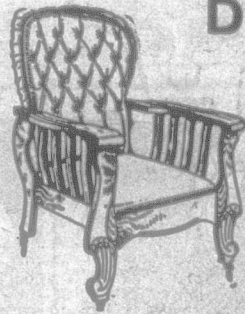
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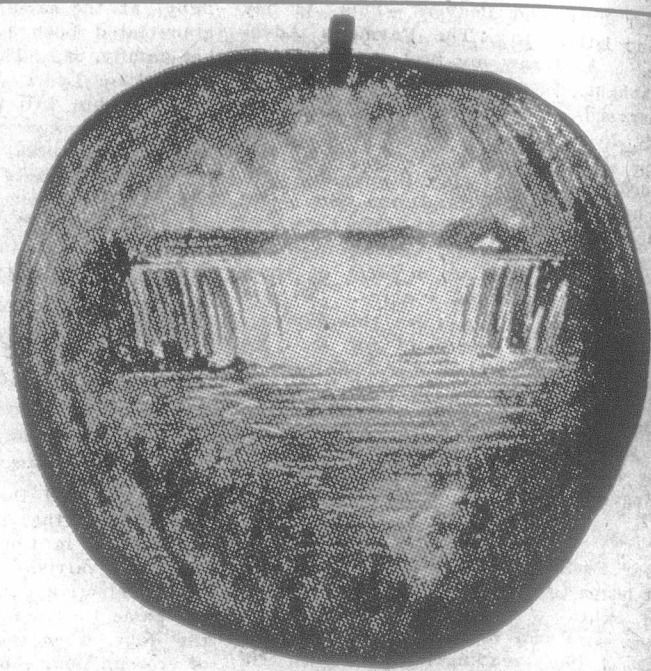
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to injure me. They know that I prized this thing highly. Their motive may have been not money, but revenge. In that case its recovery will be vastly more difficult."

Duvall saw that M. de Grissac was not being frank with him, and for a moment he was conscious of a deep sense of annoyance.

M. Lefevre had heretofore invariably taken him into his confidence. He controlled his feelings, however, and appeared to be satisfied with the ambassador's explanations.

"What did the box contain, M. de Grissac," he asked pleasantly.

"A quantity of snuff, monsieur."

"Nothing else?"

"Nothing."

"Oh. And you, monsieur, are in the habit of using snuff?"

"Yes. It is the only form in which I use tobacco. Old fashioned, perhaps, but I belong to the older generation."

He straightened himself up suddenly.

"Let us proceed, gentlemen. I fear we are wasting valuable time."

Duvall nodded.

"Permit me to ask you a few more questions."

"I am at your service, monsieur."

"When did you last see the box?"

"This morning at nine o'clock. I always carry it in the right-hand pocket of my waistcoat. To insure its safety I had it attached to a long gold chain, which was securely fastened to the inside of the pocket. I rose this morning somewhat late, having attended a banquet the night before. After having my coffee and rolls in my bed-room I went to my dressing-room to be shaved. As I did so I paused for a moment, drew the snuff-box from the pocket of my white evening waistcoat, which my valet had hung in a closet the night before, and took a pinch of snuff from it. I then replaced it in the pocket and entered the dressing-room adjoining, where Noel, my man, was waiting for me. He proceeded to shave me as usual, and I began to dress. Upon going to the closet in my bed-room to remove the box, and fasten it by means of the chain to the clasp in the pocket of the waistcoat I had just put on, I was amazed to find it gone. I at once summoned Noel."

"Summoned him?" interrupted the detective. "Was he not with you in the room?"

"No. A few minutes before—as soon, in fact, as I had completed dressing—he left the apartment to give some instructions to my chauffeur."

"What did you do then?"

"I at once rushed out into the hall, calling for Noel."

"You believed then that he had taken the box?"

"I could believe nothing else. No one but he had been in my rooms."

"Oh! I see. And you questioned him?"

"Yes. On reaching the hall I met one of the maids ascending the stairway. I called to her, asking if she had seen Noel. She had not. She had been in the servants' hall—talking with the chauffeur—Noel had not been there."

"What did you do then?"

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"I rushed to his room, which is on the floor above, thinking that, if he had taken the box, and proposed to deny the fact, he would have gone there to secret it."

"Would he not have been more likely to leave the house immediately, since he knew you would discover your loss at once?"

"No. He would realize that to flee would be to admit his guilt. He could not have gone more than a few hundred feet. Capture would have been inevitable."

"Did you find the man in the room?"

"He was just leaving it as I came up."

"What did you do then?"

"I ordered him back into the room and questioned him sharply. He denied all knowledge of the matter, and appeared to be deeply hurt at my suspicions."

"Did you believe him?"

"I do not know. The matter is incomprehensible. Noel has been in my service for eight years. I supposed him absolutely incorruptible; absolutely honest. He also insists that after I left the bed-room and came into the dressing-room to be shaved, he did not leave me, nor again enter the bed-room, in which case, he could not have committed the theft."

"Is this true?"

"So far as I can remember, it is. He spoke in a slightly hesitating way, and Duvall at once noticed it."

"You are then not absolutely sure?"

he asked.

"I feel confident that Noel did not leave me, nor enter the bed-room. If I hesitated for a moment it arose from the fact that on one or two occasions I have fallen asleep while being shaved, but this morning I am quite sure that I did not do so."

"Yet you were up late last night, and awoke feeling sleepy and tired."

"Yes," the ambassador nodded; "that is true."

"Is there any other door to the bed-room?"

"None, except that which opens into my bath. The bath-room has no windows. It is an inside room."

"And the bed-room?"

"It has two windows, facing upon the adjoining property. There is quite thirty feet of space between the two buildings, and the windows are at least twenty-five feet from the ground."

"What room is above?"

"A guest's chamber, unused and locked."

Duvall rose and began to stride up and down the room, chewing viciously upon his unlighted cigar.

"After you finished questioning the man what did you do then?"

"I searched his room thoroughly, and made him turn out the contents of his pockets, his trunk, and bureau drawers."

"And you found—"

"Nothing. That was before noon today. Since then I have kept the man locked in his room awaiting your coming. One of the other servants has remained on guard outside his door ever since."

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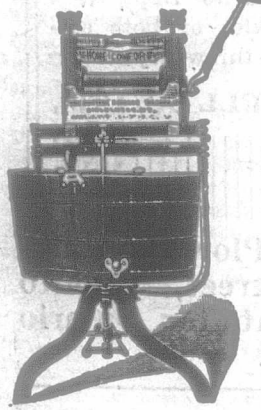
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"You did not then notify the police?"
"No. The matter is one that, for reasons of my own, I do not wish to become public."

"Has anything been heard from your prisoner since this morning?"

"Yes. He asked for pen and ink about one o'clock this afternoon. I went up to see him, to find out why he wanted them. He seemed deeply affected, was almost in tears, and apparently afraid to meet my gaze. He said he wished to write a note breaking an engagement he had had for this afternoon. He usually had Wednesday afternoons off. I permitted him to write the letter."

Duvall began to show signs of deep interest on hearing this.

"Where is it?" he exclaimed.

"What, monsieur?" The ambassador evidently did not follow him.

"The letter."

"I sent it, of course."

"But you read it first?"

"Yes. It was addressed to a man named Seltz, Oscar Seltz, if I recollect correctly, at a barber-shop in Piccadilly Circus, which, as you know, is close by. This fellow Seltz was a friend of Noel's. I have several times heard him speak of him. They were accustomed to spend their afternoons off together, I understand."

"And the note," asked Duvall impatiently. "What did it say?"

"Merely that Noel was unable to keep his appointment for that afternoon, and did not expect to see his friend again before his departure. Seltz must have been planning some trip. The letter, as I remember, was quite cool, almost unfriendly in its tone."

Duvall glanced at his watch. "This was about one o'clock, you say?"

"Yes. The matter has no significance. We are wasting our time discussing it."

"On the contrary, monsieur, I fear it may have had the greatest significance. That letter should never have been delivered. Even now it may be too late to prevent the consequences. Be so good, monsieur, as to conduct me to this man Noel's room at once."

He turned to Dufrenne.

"You will accompany us, of course, M. Dufrenne," he said, then followed the ambassador toward the hall.

In a few moments they reached the third floor of the house and passed along a short hall which gave entrance to a rear extension of the building, in which the servants' quarters were located. At the entrance of the hall a maid was seated upon a stool reading a book. She rose as the others approached and stood respectfully aside.

"Has anything been heard from Noel?" the ambassador asked. "Has he asked for anything?"

"Nothing, monsieur. He has been quiet ever since six o'clock when I took him his supper."

"What was he doing when you entered?"

"Writing, monsieur. He was sitting at the table, with a pen in his hand, and he looked up and told me to put the tray on the trunk. I shall ask you to take this letter to M. de Grissac as soon as I have finished it," he said. Since then I have heard nothing from him."

Duvall had preceded the ambassador and Dufrenne to the door at the end of the short hall, and stood listening intently. In a moment De Grissac came up, and unlocking the door, threw it open.

The room was dimly illuminated by a single candle, which smoked and gutted in its socket, apparently nearly burned out. Nothing was at first to be seen of the valet. Duvall stepped forward, then turned quickly and spoke.

"Shut the door, please," he said in a tense voice.

Dufrenne did so, while the ambassador stride forward and followed Duvall's gaze with a look of horror. On the floor beside the bed, and to the far side of the room from the door, lay the body of the unfortunate valet, his face ghastly pale, turned toward the ceiling.

But it was neither the sight of the man lying there, apparently dead, nor the agonized expression of his face which caused both the ambassador and Duvall to start back with exclamations of surprise. Across the man's lips was a great, dull-red blotch, which at first appeared to be a clot of blood, but which seemed, from its circular form

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BARRED Rock eggs, choice utility stock; winning layers; dollar per fifteen. Sam Cordingley, Lisgar, Ont.

BARRED Rocks, Silver Campines, White and Silver Spangled Hamburgs, Mammoth Pekin and Indian Runner ducks. Stock and eggs for sale. L. J. Gibbons, Iroquois, Ont.

BARRED ROCKS—Home of greatest layers. Cockerels one-fifty to two dollars; eggs one-twenty-five for fifteen. Central Ontario Poultry Yards, Colborne, Ont.

FOR SALE—Mammoth Bronze turkeys; prize-winners at the Western Fair, also Guelph. Angus Beattie, Wilton Grove, Ont. R. No. 1.

FOR SALE reasonably—Eggs from my bred-to-lay single-combed White Leghorns. John M. Ritchie, Wemyss, R. M. D. No. 1, Ont.

FOR SALE—First and second prize Toulouse Ganders 1913, also B. R. eggs \$2.00 per 15; pen headed by first prize cock. James Woodward, Lennoxville, Que.

MAMMOTH Bronze Turkeys, fine heavy birds bred from prize stock. R. G. Rose, Glanworth, Ont.

MY Barred Rocks win first at Toronto, London and Hamilton. Cockerels and hatching eggs for sale. Leslie Kuns, Freeman, Ont.

PURE-BRED Buff Orpington pullets, cockerels and eggs. James McGregor, Caledonia, Ont.

PUREBRED Barred Rock and R. I. Red eggs, \$1.50 per fifteen. F. W. Young, Box 163, Caledonia, Ont.

ROSE COMB Brown Leghorns, winter egg machines. Eggs \$2, \$3 setting. Stock for sale. C. Henning, Hanover, Ont.

SINGLE-COMB White Leghorn Eggs that hatch: dollar setting; five dollars hundred. E. W. Burt, Paris, Ont.

SINGLE-COMB Anconas, bred from Madison Square winners, eggs one dollar per setting, five dollars per ninety. Herbert Taylor, Wingham, Ont. R. R. No. 3.

S. C. White Leghorns Wyckoff strain; none better. Eggs for hatching, five dollars per hundred; one dollar for fifteen. Chas. Bartlett, Arkona, Ont.

SINGLE-COMB Black Minorca eggs. Prize-winners, \$1.50 a setting. A. Murphy, Mount Forest, Ont.

SILVER Campines, prize winners. The Dutch Egg Machine, eggs, \$3 for fifteen. Stanley, R. Jones, Newmarket, Ont.

UNFERTILE Eggs replaced free and safe delivery guaranteed. Eggs from high standard bred-to-lay Barred Rocks, White Wyandottes, Buff Leghorns, \$1.25 fifteen; large vigorous stock; extra heavy layers; pullets laying at 5 months old. Write for free catalogue which gives full particulars. Satisfaction or money refunded. Charles Watson, London, Ont.

WHITE Wyandottes—Champions eight years at New York State Fair. Big, vigorous cockerels, \$2, \$3 and \$5 each. Pullets, \$2 and \$3. Eggs, \$3 per setting. Send for free catalogue. John S. Martin, Drawer R, Port Dover, Ont.

WHITE Wyandotte eggs for hatching from good, vigorous stock. Special matings, \$3 per fifteen; utility mating, \$2 per fifteen. W. T. Ellis, Walkerton, Ont.

WHITE Wyandottes, R. C. Reds, White Rocks and Buff Leghorns' eggs \$2 per 15. S. C. White Leghorn baby chicks 10c each. Indian Runner Duck eggs \$1.50 per 15. C. S. Wilson, Tumbling's Corners, London, Ont.

Locharbar POULTRY YARDS is prepared to fill orders for eggs from selected birds of the following varieties: Barred P. Rock eggs, \$1 per 15; M. Bronze turkey eggs, 40c each, \$3.50 per nine. D. A. GRAHAM, R. R. No. 3, Wyoming, Ont.

Baby Chicks

Order your baby chicks now from our splendid laying strain of single-comb White Leghorns.

UTILITY POULTRY FARM

T. G. Delamere, Prop. STRATFORD, ONT.

SHOEMAKER'S BOOK ON POULTRY

and Almanac for 1914 has 224 pages with many colored plates of fowls true to life. It tells all about chickens, their prices, their care, diseases and remedies. All about incubators, their prices and their operation. All about poultry houses and how to build them. It's an encyclopedia of chickendom. You need it. Only 15c. G. C. SHOEMAKER, Box 920 Freeport, Ill.

OUR TRAPPER'S FRIEND AND GUIDE FREE

MODERN TRAPPING METHODS—This GUIDE is as different from other guides as automobiles are different from old time stage coaches. It is unequalled. GUIDE is FREE, while they last. If you return this advertisement and answer question. Have you written us before?—SQUARE DEAL FUR HOUSE, West Bron. & Co., Dept. 404 Ft. Wayne, Ind.

WANTED

Advertisements will be inserted under this heading, such as Farm Properties, Help and Situations Wanted and Pet Stock.

TERMS—Three cents per word each insertion. Each initial counts for one word and figures for two words. Names and addresses are counted. Cash must always accompany the order. No advertisement inserted for less than 50 cents.

FARM FOR SALE, 280 acres; one of nicest farms in Stanstead County; good buildings well watered; one mile from station, church and school. Address, Box 34, Stanstead, Que.

HIGHLY improved farm adjoining town of Melita, South Western Manitoba, of rare beauty and fertility. Unexcelled in ornamentation in Canada and recently illustrated in the Advocate. Write owner of this and other farms, who is retiring, for descriptive price list—farms, stock, implements, furniture. Land ready for the seeder. Don't delay if you want a choice farm, large or small at a big bargain. R. M. Graham, Melita, Man.

I HAVE a large number of housekeepers and good domestics requiring advanced passage to Canada. I personally guarantee each person remaining in situation until fare paid. Hughes, 3 New Street, Birmingham, England.

SITUATION wanted by single man having experience on dairy farm. D. J. Guilfoil, 80 Chapel St., St. John, N. B.

SCOTCH farm hand, married, wishes situation on stock farm, not dairy. Apply: Box A, Farmer's Advocate, Toronto.

SEND for wholesale catalogue to Lancashire's S. Cheapest Drapery Warehouse, and learn how to increase income. Make money selling British goods, tablings, towellings, ready-mades, dress materials, ladies' overalls, pinafore muslins. Cochrane's Warehouse, Victoria Bridge, Manchester, England.

WANTED—A man to take charge of small dairy farm; must be expert in the feeding and care of cattle and swine. Comfortable home, good wages, and half interest in profits to right man. One with Agricultural College training preferred. Apply D'Arcy Scott, Ottawa, Ont.

WANTED—Persons to grow mushrooms for us at home. From \$15 per week upwards can be made by using waste space in yards or gardens. Illustrated booklet sent free. Address, Montreal Supply Company, Montreal.

WANTED—Experienced farm hand; state wages, experience and nationality. R. Howes, R. R. No. 4, Harrison, Ont.

Locharbar STOCK FARM is offering a choice 2-year-old roan bull, Bobbie Burns 84269. He is one of the right good ones, deep fleshed, low-down, straight, thick and full of Shorthorn character; very sure and active; he is a show bull as well. Priced right for quick sale. D. A. GRAHAM, R. R. No. 3, Wyoming, Ont.

Must be sold. Cheap for cash.

IMPORTED CLYDESDALE STALLION rising three a weighty fellow of good quality. Sired by Sir Hugo. Will give a cash guarantee that he is a successful foal getter. For particulars write Box 401 Bowmanville, Ont.

CREAM

Toronto consumes the milk and cream from over 14,000 cows and the butter production of over 70,000 cows, we need your cream and expect to pay well for it, drop a card.

The Toronto Creamery Co., Ltd., Toronto

Cream Wanted

We pay express charges on cream from any express office within 200 miles of Ottawa. We also supply cans. Sweet or sour cream accepted. Write for particulars to

Valley Creamery of Ottawa, Limited
Ottawa, Ontario

LOOK OUT FOR THE Imperial Life

ASSURANCE COMPANY'S

big advertisement, which is due to appear in next week's issue, entitled, "When You Are Old."

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 instructions as to how to use them, upon receipt of 50c. (fifty cents). Address:

R. A. CHAMBERLIN
83 Bayswater Ave. Ottawa, Ontario

Perfectly Legal WILL

25c You can make one in your own home without expensive legal costs for 25c. Protect your family and make sure your wishes will be carried out. Get a

"CODE" WILL FORM with complete instructions to-day at your book seller or stationer or send 25c. to THE COPP CLARK CO. Limited
500 Wellington St. West, Toronto

Farmers' Favorite Breeds

From Canada's Champion yards. Heavy laying strains. Barred Plymouth Rocks, White Wyandottes, Rhode Island Reds. Ten \$10 Barred Rock Cockerels at \$5 each; Ten \$5 Barred Rock Cockerels \$3 each; Twenty \$5 White Wyandotte Cockerels \$3 each; Fifty \$5 Rhode Island Red Cockerels \$3 each; Four \$5 Rhode Island Red Cockerels \$2.50 each. Satisfaction guaranteed or money refunded. JNO. PRINGLE, LONDON, ONT.

KEITH'S TESTED MANGEL TURNIP AND FIELD CARROT SEEDS

Did you ever figure out what it costs you in returns you do not get when root seed germinates poorly and leaves big empty spaces?

WHY NOT GET

Keith's Tested Seeds

for 1914, and be absolutely certain of live seeds and a perfect stand?



Keith's Prizetaker Mangel

It is worth your while to sit down and order good live fresh seeds, direct. Do not put off till seeding time, when you will have to go to the nearest store to get doubtful seed.

Our mangels and turnips are put up in 1-lb. cotton bags. There is nothing better to be got.

If you are ordering clover and timothy seed, seed grain or seed corn, your mangel and turnip seeds can go along with them at 5c per lb. less than prices herewith quoted.

Mangels.—Keith's Prizetaker, Danish Sludstrup (a new intermediate, very fine). Prices for both, postpaid, lb., 35c.; 5 lbs. or over at 30c.

Mangels.—Keith's Yellow Leviathan, Yellow Intermediate, Mammoth Long Red, Giant Half Sugar. Prices, postpaid, 30c.; 5 lbs. or over at 25c.

Swede Turnips.—New Century, Scottish Champion, Elephant. Price, postpaid, lb., 30c.; 5 lbs. or over at 25c. per lb. Keith's Prizetaker. Price, postpaid, 35c.; 5 lbs. or over at 30c.

Mammoth Smooth White Intermediate Carrot.—Price per lb., 60c. postpaid.

Geo. Keith & Sons

Seed Merchants Since 1846

124 King St. East TORONTO

THROW OFF THE



WASH-BOARD YOKE

The washboard has been a hard taskmaster for generations, but now the washing machine has taken its place.

The New Century Hand Washer eliminates the back-breaking rubbing, thus making washing a pleasure instead of a hardship. It runs easily and does better and quicker work than the old method.

No other machine can be built on the New Century principle, because its features are patented. The rust-proof steel ring, that prevents warping, adds years of wear to its life.

See it at your dealer's or send to us for information.

CUMMER-DOWSWELL Limited
Hamilton, Ont. 205

College Re-Opens After the Easter Vacation, on Monday, April 20th.

Alma (Ladies) College

A few new students can be received for selected studies. Spring or Commencement Term is especially interesting.

Robert I. Warner, M.A., D.D.
St. Thomas :: Ontario

Please mention "The Farmer's Advocate."

and regular contour, more like a huge seal.

And seal it was.

Duvall, dropping on one knee beside the body, felt for the man's heart, at the same time looking closely at the mark upon his lips. He was quite dead, and had apparently been so for an hour or two. The blot upon his face was a great lump of red sealing-wax, tightly binding together his lips, and upon it was the coarse imprint of a man's forefinger.

The ambassador shrank back with a cry, as his eyes fell upon the ghastly sight.

Dufrenne gazed at the dead man impassively.

Duvall, springing to his feet, went at once to the window at the rear of the room, which stood partly open, and raising it to its full extent, looked out. The others heard him give utterance to a low whistle as he drew back into the room.

"No one could have entered the room," cried the ambassador in a frightened voice. "It is thirty-five feet or more to the ground."

Duvall motioned to the window.

"Look out, monsieur," he remarked quietly.

De Grissac did so, then uttered a sudden cry.

From the window to the garden below stretched a long, slender, wooden ladder. "It belongs to the men who have been repairing the rain-spouting," he exclaimed. "They leave it in the garden at night. I knew there was no way in which Noel could get out."

"But clearly a way; monsieur, by which others could get in," said Duvall quietly, as he began a minute examination of the room.

"But the snuff-box; do you think it has been taken away?"

"Undoubtedly, monsieur. I suspected as much when you showed me the man's letter. Your servant, I have no doubt, took the box while shaving you this morning. You doubtless coaxed off, thus giving him the opportunity. He did not know that you had taken snuff from the box this morning shortly after arising, and imagined, no doubt, that you would suppose you had lost it some time the night before. This would relieve him of any suspicion. He hurried off to his room to secrete the box, meaning to deliver it to this friend of his, Oscar Seltz, during the afternoon. His arraignment by you and his subsequent imprisonment no doubt frightened him and filled him with remorse—hence his rather unfriendly letter to Seltz. He had repented of his bargain, and was doubtless engaged in preparing a confession, telling you of his crime, and the reasons therefor, when the murderer entered the room.

"The latter, who probably was this man Seltz, must have become alarmed by the tone of Noel's letter. He was, it seems clear, planning some trip away from London, upon which he was about to leave. He meant to take the snuff-box with him. Upon receiving Noel's letter he determined to see him and demand the box, if he found the latter had secured it. No doubt he made inquiries from some of the servants, on calling to see Noel, and was informed that he was confined to his room.

"He then pretended to leave, but in reality ascended to the room by means of the ladder he found in the garden, while the servants were at dinner. It was a desperate chance, but he took it. Upon arriving in the room he found Noel engaged in preparing his confession, insisted upon reading it, then realizing that his confederate was about to play him false, killed him, after gaining possession of the box, and departed."

"The ambassador uttered a groan."

"My God," he moaned, "I am lost." Dufrenne, who meanwhile had been making a careful examination of the dead valet's body, rose with a mystified expression upon his face.

"There are no wounds upon the body at all, M. Duvall," he said. "How can you account for this man's death?"

Duvall stooped and repeated the examination which his companion had just made.

"You are right," he said. "The case is a most mysterious one."

"At least we can identify the murderer by the finger-print upon the seal," De Grissac remarked eagerly.

"I'm afraid not. This man Seltz cannot be quite a fool. Look!

He held up the forefinger of the dead man's right hand, upon which was a dull-red burn, with bits of red sealing-wax about the nail. "He wasn't taking any chances."

He let the already stiffening arm fall, and continued his examination of the body.

"The method by which the man was killed," he remarked slowly, "is not yet clear to me. Certain finger prints on the throat indicate that he might have been strangled, but they are hardly deep or extensive enough for that. I fancy they would have resulted in temporary unconsciousness only. No—there is another reason—although what it is— he paused as his eyes lit upon a vain, shining object on the floor beside the table.

"Oh—this may tell us something."

He picked up the thing which the others saw at once to be a large scarf-pin, and examined it carefully.

"Did this belong to your servant, M. de Grissac," he asked, holding the pin up to the light.

"Yes." The ambassador glanced at the pin carelessly.

"It was one of my own that I had given some months ago."

Duvall laid the scarf-pin carefully upon the table, then went to the body on the floor, turned it over and made a careful examination of the back of the neck. He held the candle close, pushing aside the man's thin, sandy hair. Presently he rose and placed the candle on the table beside the pin.

"This was what your servant was killed with, M. de Grissac," he said, as he indicated the scarf-pin with his finger. "It was thrust violently into the spine at the base of the brain. Only a tiny blood-spot remains to tell the tale. This fellow, Seltz, is a shrewd customer."

"We do not even know that it was he who committed the crime. There is no real evidence against any one. The snuff-box may still be here. I insist that you make a thorough search."

"It would be useless, monsieur," Duvall remarked with a faint smile. "The box must have been on the table when the murderer entered the room."

"Why?"

"Because otherwise he would have searched for it, and you would have found everything in disorder. Believe me, monsieur, your servant had repented of his theft and was about to return the box to you—it was that which caused his death. The seal upon his lips is a gruesome joke—silence—his lips are sealed—he can tell nothing."

"Seltz must be arrested at once," the ambassador cried in a rage.

"So far, monsieur, there is not the slightest evidence against him. Further, it is my opinion that he will leave London at once. Tell me the name of the shop in Piccadilly Circus where he was employed, and we will lose no further time in getting on his trail."

The ambassador was not entirely certain of the location of the shop. He had never visited it. The name, he remembered, was given in the note as Perrier. The note had been delivered by one of the servants. He could tell where, and to whom he had delivered it.

Duvall recommended to the ambassador that he report the murder to the police at once, but requested that no mention be made of the presence of himself and M. Dufrenne.

"We should be held as witnesses," he cautioned M. de Grissac, "and that would seriously interfere with our plans. Let us interview the servant who took the letter at once."

The letter, a groom, was soon disposed of. He gave the number and location of the barber shop in Piccadilly Circus, a short distance away, and reported that he had handed the message to a dark, smooth-shaven man at the second chair. He did not know Seltz, but the proprietor had pointed him out in response to his inquiries.

His description of the man was vague and unsatisfactory; he was unable to give any further information on the subject. Investigation as to any one having made inquiries at the servants' entrance during the evening regarding Noel, elicited the information that a heavily built, dark man, smooth-shaven,

The Bissell Out-Throw Disk Harrow

To settle all doubt about which is the BEST OUT-THROW DISK HARROW, we ask you to test the "Bissell" Out-Throw in a field competition with other Out-Throw Harrows.

The "Bissell" Out-Throw has many features that have made the name "Bissell" famous in connection with Disk Harrows. It has plates of the correct shape. One gang is set slightly ahead of the other. The gangs cannot crowd or bump together and cause the Harrow to rock when you come to hard soil—a new feature in Out-Throw Harrows. The hitch is well back, the draught is light and there is no neck weight.

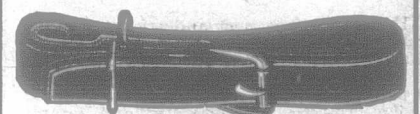
The machine in actual use is our best advertisement. No need to send special travellers to sell the "Bissell." We put our name on every Harrow. If you would like to learn more about Disk Harrows, send to Dept. W for free booklet of both out-throw and in-throw styles. 72

T. E. BISSELL CO. LTD.,
ELORA,
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Jno. Deere Plow Co., Ltd.,
77 Jarvis Street, Toronto
Selling agents for Ontario
and Quebec.

The Handy Hame Strap

Twice as Strong as the Ordinary Strap.



Price 25 Cents

This is only one of the 22 Horse specialties which constitute the "Griffith" line. It is made of oak tanned belting leather and is twice as strong as the ordinary harness leather strap. The special hook fastens on to the hame and prevents wear and slipping at this point. Made in 22 or 25 inch length and in the regular sewed style if desired. Also made 1/4-inch wide if desired at 20 cents each.

Go to your dealer and ask to see the "Griffith" line of belting leather hame straps. If he hasn't them in stock we will send you a sample PREPAID on receipt of price, but kindly give us your dealer's name.

G. L. GRIFFITH
& SON
DEPT. A
Stratford, Ont.



Please mention "The Farmer's Advocate."

had called about half past seven, and upon being informed that the valet was confined to his room and could not be seen, had disappeared. No one had taken any particular notice of his coming or going.

When the party had once more assembled in the reception-room, Duvall turned to M. de Grissac.

"There is nothing more to be accomplished here, monsieur," he remarked quietly. "We will get after this fellow Seltz at once, and I trust that before long the missing snuff-box will be returned to you."

The ambassador shook hands with his guests in a state of extreme agitation. "Lose no time," he urged. "You must recover the box before the thief has an opportunity to turn it over to those who are back of him, else it will be too late. I shall pray for your success."

He stood at the door as his guests departed, shaking as though with a palsy. "It is a matter of greater moment than life itself. I trust you will not fail."

Chapter IV.

AT THE BARBER SHOP.

Richard Duvall, accompanied by the silent little curio dealer, left the home of the French ambassador and walked rapidly to the barber shop of Alphonse Perrier, in Piccadilly Circus.

They found the place without difficulty, a large and evidently prosperous establishment, located on the ground floor of a building, the upper rooms of which were devoted to business offices. A large plate-glass window in front bore the sign, "Alphonse Perrier, Tonsorial Parlors."

The detective and his companion walked slowly past the brightly-lighted window, their eyes taking in the details of the interior of the place. It was now close to ten o'clock, but the street was filled with pedestrians, and there were still one or two customers in the shop.

At the first chair toward the door stood a large, pasty-faced man, with a mop of bushy black hair, who was engaged in trimming a young man's mustache. The second chair was occupied by a man who was being shaved. The fellow who was shaving him answered in a general way to the descriptions of Seltz given by the ambassador's servants.

The third chair was unoccupied, and the man in charge of it, as well as those at the remaining two chairs, were engaged in putting away their razors and brushes, preparatory to leaving. It was evident that the closing hour was near at hand.

Duvall turned to his companion. "M. Dufrenne," he said, "will you enter at once and take the third chair? Keep your eyes and ears open and see what you can learn. I will wait here in the shadow of the next doorway. Our man is evidently inside. He will soon be leaving the shop. If he does so before you do I shall follow him. In that event, return to M. de Grissac's house and wait there for word from me."

Dufrenne felt his stubby beard. "It is fortunate, monsieur, that I have not been shaved since Monday," he said, as he entered the shop.

The man in charge of the third chair looked at him with a sulky expression as he took his seat. His companions grinned. Evidently he had not expected another customer before the closing-hour. He began to shave the little, old Frenchman with careless haste. The latter lay in his chair, with half-closed eyes, pretending to doze. In reality, he was watching every movement of the man next to him.

The customer who occupied the second chair was a small, thin man, with sandy hair and a bony face. His eyes, rather prominent, under sparse, red eyebrows, were closed as though in sleep. He was not paying the slightest attention to his surroundings, taking no notice whatever of Seltz, who was going over his face in a stolid and methodical way.

There seemed nothing about either of them to attract attention, and Dufrenne began to wonder whether they might not after all be upon a false scent. The man Seltz, showed neither haste nor nervousness in his movements. If he was in very much of a hurry to finish his work for the evening and leave the place, he certainly did not show it.

Cream of the West Flour

The hard wheat flour that is guaranteed for bread

It makes great big bulging loaves of the lightest, whitest and most wholesome bread. I want folks to know what a splendid flour "Cream of the West" is. That is why I have induced the Campbell Flour Mills Company to make special prices direct to the farmers.



Give Me a Chance to Prove My FLOUR

We want to make "Cream of the West" Flour better known in every locality in Ontario. And with this end in view we offer the following

Special Prices Direct to the Farmer

FLOURS		FEEDS	
	Per 98-lb. bag.		Per 100-lb. bag.
Cream of the West Flour (for bread)	\$2.90	"Bullrush" Bran	\$1.30
Queen City Flour (blended for all purposes)	2.50	"Bullrush" Middlings	1.35
Monarch Flour (makes delicious pastry)	2.50	Extra White Middlings	1.45
		"Tower" Feed Flour	1.60
		"Gem" Feed Flour	1.75
		Whole Manitoba Oats	1.50
		"Bullrush" Crushed Oats	1.55
		Manitoba Feed Barley	1.35
		Barley Meal	1.40
		Oil Cake Meal (old process)	1.70
		Chopped Oats	1.55

Prices on Ton Lots: If you want to order feeds by the ton, purchase 20 bags at the above prices. As the prices we quote here are very special, we do not make any reduction from them unless you purchase a carlot. We give special prices on carlots. Correspondence with farmers' clubs is solicited.

Terms Cash With Order: Orders may be assorted as desired. On shipments up to five bags, buyer pays freight charges. On shipments over five bags we will prepay freight to any station in Ontario, east of Sudbury and south of North Bay. West of Sudbury add to above prices 10 cents per bag. To points on T. & N. O. line, add 15 cents per bag to cover extra freight charges. Make remittance by express or post office money order, payable at par at Toronto. Prices are subject to market changes.

Read This Splendid Offer--Household Book Free to Everyone Who Buys Three Bags of Flour

It is called the "Dominion Cook Book." The 1,000 recipes are alone worth the regular price of the work (\$1). They cover every kind of cookery from soup to dessert—from the simplest to the most elaborate dishes. They always come out right. And in addition there is a big medical department. It tells in simple language how to deal with every common malady.



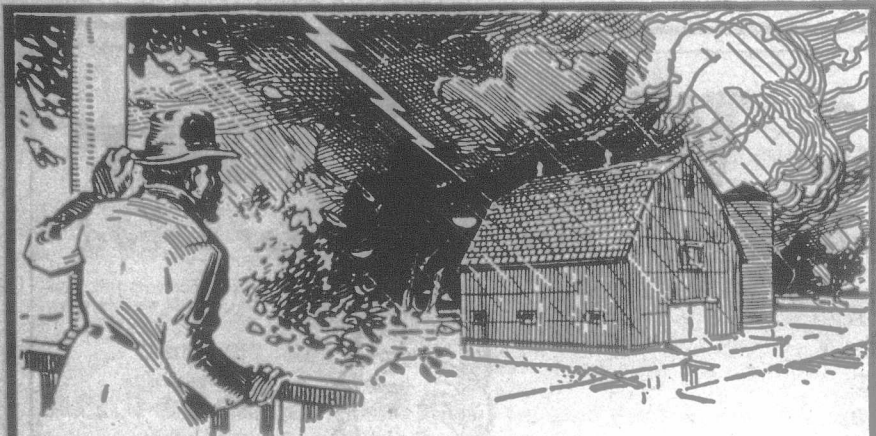
Note:—If you have already secured the book illustrated above, write us for list of books by Ralph Connor, Marion Keith, J. J. Bell and other Canadian authors, from which you can make further free selections in buying flour.

How to Get the Household Book Free.

With every purchase from us of not less than three (3) bags of Campbell's Flour (any brand) you will get the Household Book Free; but bear in mind that if you order up to five (5) bags, we will pay the freight to any station in Ontario, east of Sudbury and south of North Bay (see terms above). To get the book, at least 3 bags must be flour—the other two bags may be flour or any other product mentioned in the list printed above. Read the list and make up an order today. Add 10 cents to your remittance to cover postage and wrapping of book.

SALES MANAGER

The Campbell Flour Mills Company, Limited
[West] Toronto, Ontario



Safe From Storms



Buildings roofed with "Acorn" quality products are immune from all the ravages of storms and the weather. There is no danger from lightning, and the farmer has his stock and grains well protected.

"Acorn" quality products are the best on the market, and the trade mark stands for the highest quality. If you want metal that has long life and will give you the best service insist on "Acorn" quality.

Our new catalogue of roofings and sidings will be off the press in a very short time, and you should send to-day to ensure you getting a copy. Just drop a card to us right away and your copy will be mailed shortly.

The Metal Shingle & Siding Co., Limited

Preston Montreal Saskatoon Calgary

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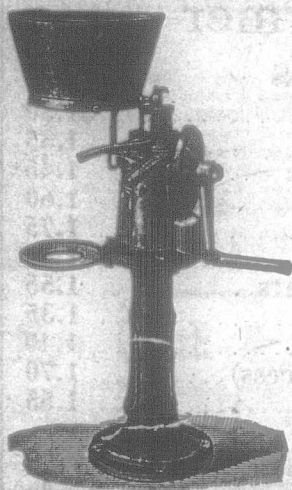
The A. B. ORMSBY Co., Limited

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ADDRESS YOUR NEAREST OFFICE.

C.O.A.

THE PREMIER



The Cream Separator you will buy if you investigate its merits and compare it with others.

It is the cleanest skimmer, making you a handsome profit while paying its own cost.

Its simplicity of construction, square-cut gears and excellent oiling system makes it the easiest to operate.

Only the best material and workmanship being employed in its manufacture it will outlast any other make.

If you are looking for the best it will pay you to prove these statements for yourself. It will cost you nothing to test a machine on your own farm.

Write us for catalogue and fuller information.

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Winnipeg TORONTO St. John

Has No Equal As a Butter And Milk Producer



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After a time, Dufrenne observed that the thin man in the chair next to him had opened his eyes, and was feeling his jaw with much satisfaction.

"A very good shave, my good fellow," he said, in excellent English, without a trace of any foreign accent.

"What powder was that you used, may I ask?"

Dufrenne, who was observing Seltz carelessly, saw a sudden change come over him. His eyes lit up with interest, and a slight flush overspread his face. There seemed nothing in so simple a question to arouse him in this way, and Dufrenne watched him carefully, his senses keenly alert for anything of interest. To his disappointment, Seltz's answer was of the most commonplace character.

"It is a special kind, which M. Perrier has made for him, after his own formula. 'Poudre Perrier,' it is called."

He turned to the case behind him, opened a drawer and brought forth a round cardboard box. "Eightpence is the price. Would you like to try a box?" He extended the package toward his customer, who had risen and was adjusting his scarf at the mirror.

The man turned and glanced carelessly at the box. "Oh, you might as well wrap it up. I shave myself occasionally, when I am travelling. Eightpence, did you say?"

"Yes, sir."

Seltz turned to the case and began to do up the package in a piece of brown paper. In a few moments he turned and handed it to his customer, who had drawn on his coat, and was preparing to leave the place.

Dufrenne saw him put his hand into his pocket and draw out some money which he handed to Seltz.

The latter nodded gravely and placed it in his pocket. The thin-faced man did the same with the package, then left the shop. There was nothing in the least suspicious about the whole transaction, and the little Frenchman contented himself with observing Seltz as he put away his brushes and prepared to stop work for the day.

Once he saw the man draw something from his pocket and glance hurriedly at it, but his back was toward the chair in which Dufrenne sat, and he could not see what it was. A sense of uneasiness filled him, however, as the man who was shaving him drew away the sheet from about his shoulders and stepped back from the chair to allow him to rise.

He made his way to the street as quickly as possible. Seltz was still occupied in putting away his shaving implements.

On reaching the pavement, Dufrenne turned and walked rapidly toward Charing Cross. He did not wish to join Duvall in sight of those within. He had taken but a few paces when the latter caught up to him.

"What did you learn?" the detective asked, quickly.

Dufrenne related in a few words what had occurred in the shop. He failed to note the excitement with which the detective listened to his story.

"It may have been the snuff-box," Duvall cried, moving forward rapidly in his excitement. "A clever scheme, I must say."

He looked about eagerly for the man who had left the barber shop so short a time before, but he had disappeared in the darkness.

"If you could only have warned me in some way."

"It was impossible, monsieur," said Dufrenne, much crestfallen "I could not leave the chair until the man had finished shaving me."

"Of course not," replied Duvall, uncertain what course to pursue next. "The man went in this direction. I noticed him particularly. Perhaps if I were to hurry I might overtake him."

He started forward. "You stay here and watch Seltz. If I do not return, report to me at M. de Grissac's." He turned and disappeared in the crowd.

Dufrenne went slowly back to the neighborhood of the shop, and stood in the shadow of the doorway, waiting.

Presently he observed two of the assistants, in street clothes, leave the place and hurry off into the darkness. Neither of them was Seltz.

The lights in the shop began to go out. Another assistant left. Only Seltz

and the proprietor now remained within. He crept toward the window, and cautiously looked inside.

M. Perrier stood before one of the mirrors, arranging his bushy hair.

There was no one else in the shop.

Chapter V.

THE SLEEP-WALKER.

Grace Duvall arrived at the house of the American minister at about half past five, and luckily found him at home. From the maid at the hotel she learned that his name was Phelps, Austin Phelps, and she at once recognized it as that of a lawyer, prominent in business and social circles in New York.

That he should know her, at least by name, was not at all surprising—her aunt, prior to her marriage to Count d'Este, had been much courted on account of both her beauty and wealth.

She waited in the handsome drawing-room to which she had been conducted, nervously wondering what the nature of her reception would be. The card she had given to the servant was one of her own.

In fact, she remembered with a smile, that her marriage to Richard Duvall but a few hours before, had so filled her mind and heart that she had completely forgotten to have any cards prepared setting forth her new estate. It was as Grace Ellicott that the minister would know her, however, and her business in Brussels made it desirable that she should pose as a single woman.

It was not at all difficult, she thought to herself, under the circumstances.

Mr. Phelps, the minister, proved to be a rubicund, rather portly gentleman, with white side-whiskers and an air of urbane courtesy that set her at her ease at once. She told him who she was, hopefully, and was delighted to find that he placed her at once.

"Margaret Ellicott's niece," he said with a pleasant smile, offering his hand. "My dear girl, I'm delighted to meet you. I knew your aunt well, years ago, when you were going about in short dresses. I lost sight of her after she married d'Este, and went to Paris to live. It was only the other day that I learned of her death. She was a fine woman. Mrs. Phelps and myself were both very fond of her. Won't you take a seat and tell me what you are doing in Brussels?"

"I have suffered a great deal lately, Mr. Phelps," she began, "from nervousness. I've been living in Paris, you know, and many things have happened to upset me. You have heard, of course, of the Count d'Este's treatment of me, and of his arrest and conviction?"

"Yes," He nodded gravely. "I do not wonder that you feel upset."

"Of late I have suffered a great deal from attacks of sleep-walking. I get up at night and wander about, without knowing what I am doing. One night I went out on the balcony and nearly walked off into the street." She lied bravely, hoping that her story would appear plausible.

"Too bad," Mr. Phelps remarked, evidently somewhat surprised that she should confide such matters to him.

"You are under treatment, of course?"

"No, that is, not at present. No one in Paris has been able to do me any good. I have heard so much of Dr. Hartmann and his marvelous success with all sorts of mental and nervous troubles that I have decided to consult him. That is why I came to Brussels."

"I see. Well—he's a splendid man. You couldn't do better. I know him very well, and like him immensely. A thorough scientist. Have you seen him yet?"

"No. I—I understand that he does not care to take patients without references as to their standing, financial and otherwise."

"My dear girl. You should have no trouble. Of course, he is overrun with patients, and as his sanatorium is a small one, he is obliged to charge large fees and take only the best and wealthiest class. He is an investigator, rather than a practitioner, and for that reason is obliged to guard his time."

"Then may I ask that you will give me a letter to him?" Grace said, heartily.

"Certainly. I'll do it gladly. When do you intend to call on him?"

"I thought of going at once."
 "Then I'll do better than give you a letter. I'll call him up by telephone and make an appointment for you. Say in half an hour. It will take you about twenty minutes to drive to his place. Will that be convenient?"
 "Perfectly, Mr. Phelps, and thank you very much."

"Nonsense, my dear girl. Only too happy to do it for you. You must come and meet Mrs. Phelps later on, and dine with us. Just at present she is out, taking tea with some friends. I want you to know her."

He rose and started toward the door. "Excuse me for a few moments, while I telephone the doctor."

Grace, left alone, could not help regretting the deceit she had been obliged to practise upon her aunt's old friend, but there seemed to be no help for it. She only hoped that nothing would occur, subsequently, to involve the latter in any disagreeable explanations.

Mr. Phelps returned to the drawing-room in a few minutes, his face wreathed in smiles of satisfaction.

"You're lucky," he said. "Dr. Hartmann tells me that he can accommodate you at once, as he discharged one of his patients, cured, only this morning. If you propose to remain at his house for treatment, which would be the only satisfactory way, I would suggest that you drive around by way of your hotel and arrange to have your baggage sent at once."

"I have written the address, and a few words to the doctor, on this card. Any of the cab-drivers will know it, of course. Dr. Hartmann is one of the most prominent men in Brussels. I wish you good luck in your stay at his place, and whenever you are in the city, come in and have luncheon. Mrs. Phelps will be delighted."

He led the way to the door and ushered the girl into her cab. "Glad I was able to be of service to you," he said, as she drove off. "Good evening."

When Grace entered the office of Dr. Hartmann, she was quite conscious of the fact that it would not be necessary for her to pretend to be nervous. In fact, she felt herself turning hot and cold with fear, and wondered whether she would have the courage to play the part which had been so unexpectedly thrust upon her.

The place itself was pleasant and attractive enough in appearance. It consisted of a large, stone building, with a mansard roof, set back some hundred or more yards from the street, and surrounded by a small park, filled with trees and shrubbery.

A well-kept gravel driveway led from the gate to the main entrance, which opened into a large hall. She observed, as she came in, a sort of parlor, or reception-room, to the right, handsomely furnished in rather an old-fashioned style, with a large marble mantel, and fireplace at one end of it. In the latter a blaze of cannel coal lit up the room with a pleasant radiance. It was not yet dark without, and the lights in the reception-room were unlit, although a lamp was burning in the hall.

The maid who admitted her, a pleasant faced German woman of middle age, conducted her into the reception-room, and taking her card disappeared down the hall. In a few minutes she returned, and nodding to Grace, opened a door at the left of the hall and bade her enter.

She found herself in the doctor's office; a large room, furnished in leather. A table in the center contained a lamp, and many magazines, and papers. There was no one in the room when she entered, but before she had time to select a chair, a door at the rear opened, and Dr. Hartmann came in.

He was a man of powerful build, and gave one the impression of great size, although not in reality above medium height. His shoulders, however, were very broad and thick, his neck short and powerful, his head large, with heavy iron-gray hair.

A short beard of the same color covered the lower part of his face, while through a pair of gold-rimmed spectacles his eyes shone with piercing brightness. Grace thought, as he came toward her, that she had seldom seen a more striking-looking man.

"Be seated, miss," he said addressing her in English, though with a decided

accent. "You are Miss Grace Ellicott, I believe." He glanced at the card which he held in his hand.

"Yes," said Grace, nervously taking a seat.

"Mr. Phelps tells me you suffer from somnambulism," the doctor went on. "How long have you observed the symptoms?"

"About six months," answered Grace steadily.

"Are the occurrences frequent?"

"Yes. Almost every night."

"Had you experienced any great shock about the time these manifestations began?"

"Yes. My aunt, whom I loved very dearly, had died."

"Oh! And when you walk in your sleep, do you seem to see her?"

Grace reflected over this question for several moments. Then she recollected that persons given to somnambulism never remember their experiences.

"No. I have no recollection of what occurs."

The doctor's face was lit with a satisfied smile. He came over to Grace, drew apart the lids of one of her eyes, and gazed into it, looked at her hands critically, felt her pulse for a moment, then asked suddenly:

"Have you ever been placed under the influence of hypnosis?"

She trembled. If this man were to hypnotize her, as she was perfectly certain that he could, he might force her to tell him everything, and thereby endanger the success of the whole plan.

"No," she replied firmly. "I should not care for it."

"It is a method of treatment, Miss Ellicott, which I use a great deal."

"I hope it will not be necessary, doctor to use it upon me. I have always had a horror of being hypnotized. Please do not attempt it."

"Very well," the doctor laughed. "It may not be necessary. Before we go further with your case, I shall want to observe it carefully for a few days. You understand my terms, of course?"

The doctor named a large sum.

"So much each week, and an additional charge for my services, depending upon the nature of the case."

Grace nodded, although the amount was sufficiently large to stagger her.

"I shall gladly pay what you ask," she said, "if you can only cure me."

She rose as the doctor stepped to the side of the room and pressed an electric button.

"You can go to your room at once, Miss Ellicott," the doctor went on.

"One of the maids will conduct you. Your meals will be served there, or you can eat in the large dining-room, as you prefer. There are only twenty other patients. Some of them you might find very agreeable. Make yourself thoroughly at home. There are many excellent books in the library, if you are fond of reading, and you will perhaps wish to walk in the grounds, or visit your friends in the city."

"The nature of your case is such that no particular regimen, no rules of health are necessary. Remember, however, that we close the gates to the park at sundown. I will see you again this evening and bring you some medicine. It is merely a sedative, to quiet your nerves. It is not possible to do much for complaints such as yours by means of drugs."

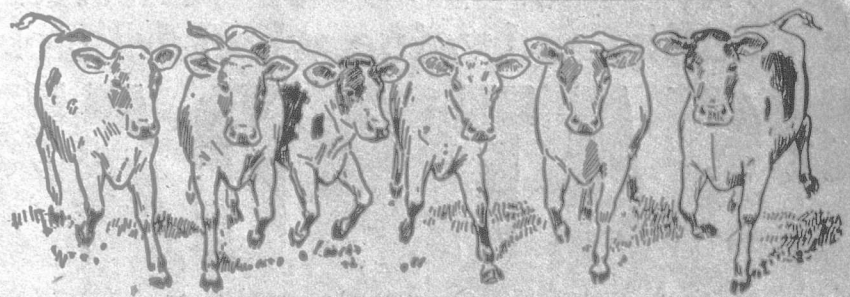
He turned as a quiet, pleasant-faced woman opened the door.

"Anna," he said to her in German, "conduct Miss Ellicott to her room, and make her comfortable."

Not wishing to endure the ordeal of dining with strangers, Grace decided to have her dinner served in her room. She found the meal excellent, and very well cooked. After dinner she sat in an easy chair by the large electric lamp and read a book she had brought with her.

At ten o'clock Dr. Hartmann came in, asked her a few more questions, and gave the nurse a small bottle containing a dark, brown liquid and instructed her as to administering it. Then he said good night and went out.

Grace threw down her book and announced that she was ready to retire. The maid assisted her to undress, gave her a few drops of the medicine in a small glass of sherry, put out the light, and departed, informing Grace that she would be in the hall, within call, if the latter wished anything.



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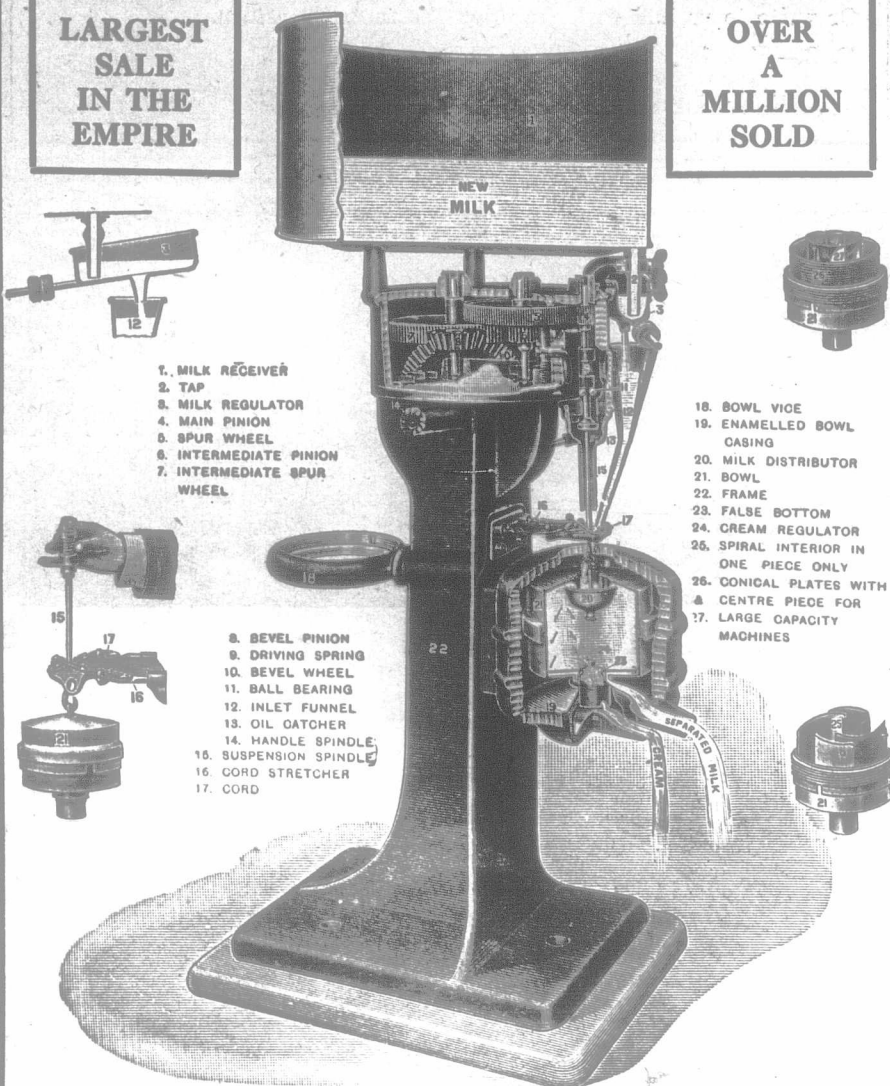
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In spite of the medicine which she had taken, Grace was far too nervous and excited to sleep. She realized the daring nature of the game she had been called upon to play, and for a moment her spirits sank and she felt a sense of fear.

Thoughts of Richard, however, soon restored her courage. She would face any danger to serve him.

After a while, the noises of the house ceased, one by one. As midnight struck, all was dark and silent. Only the faint sound of the wind among the trees in the park came to her ears. She wondered whether it was necessary for her to pretend to walk in her sleep this night, in order that the doctor might feel that her case was a real one. She rose softly, undecided, and going to the window, looked out.

The room in which she was then occupied a position at the rear of the building, and in one of its two wings. From the center of the main buildings she observed a covered passageway or bridge, extending out for perhaps a hundred feet and terminating in a sort of square tower. In one of the rooms in the tower, on a level with herself, she saw lights, and the figure of a man moving about.

The place attracted her attention. She wondered what its use could be. Then an inspiration struck her. The covered bridge ran from the main hall not thirty feet from her own door. She determined to cross it, pretending to be walking in her sleep, and find out what she could regarding the brick tower. When the time came, she knew that all the information she could possess about the house and its occupants would be necessary to the success of her plans.

She threw about her a dressing-gown, and quietly opened the door. The maid was nowhere to be seen, but would doubtless return shortly. The chair upon which she had been sitting, at the point where the side and main halls met, stood directly underneath the electric light. No doubt, Grace thought, she had been called away for a few moments by one of the other patients on the floor.

Now was her chance. She stepped noiselessly down the cross hall, her eyes wide open and her hands clenched at her sides. At the junction of the two halls she turned to the right, toward a door which she judged, gave entrance to the covered way. She found this unlocked, opened it, entered the passageway, and closed the door behind her. Then she began to walk slowly along the bridge.

It was a narrow structure, not exceeding five feet in width, with top and sides of corrugated metal, and a floor of wooden planks. At the far end of it she perceived a glass door, behind which shone a brilliant light.

She approached the door cautiously, keeping up all the while the pretense of walking in her sleep. This was not easy. She did not know just how persons who were somnambulists acted, but she had read descriptions of such cases, she had once seen a play in which one of the characters was a sleep-walker. She tried to give her eyes a vacant, unseeing expression, and fearlessly approached the door.

It stood slightly ajar, and through the glass panels she saw at once that the room was Dr. Hartmann's laboratory. She arrived at this conclusion from the various medical appliances which stood about the room, the uses of which she did not know.

Her inspection of the room, however, was but momentary, for two figures, brightly illuminated by an overhanging cluster of electric lights at once attracted her attention.

One of these was Dr. Hartmann. He sat at a large, flat-topped desk, his profile toward the door, examining with great care a mass of papers which lay on the desk before him. His forehead was wrinkled with thought, and an expression of anger dominated his face.

At the other side of the desk sat a tall, spare man, with a military-looking carriage, and a fierce blond mustache, which he was gnawing uneasily. The two figures sat silent for several moments, no word passing between them, while Grace watched intently. Presently she heard the doctor speak.

"It took you two years, it seems, to find out that M. de Grissac uses snuff."

The other nodded. "One year and ten months, to be exact."

"And now," the doctor went on, angrily, "you carelessly trust everything to a stranger."

"It is better so, is it not? The affair is dangerous. Neither you, nor I, can afford to be mixed up in it."

For a fleeting instant Grace forgot that she was a somnambulist and showed human interest and concern.

Dr. Hartmann brought his fist down upon the desk with a bang.

"Gott in Himmel!" he roared. "We must take some risks, my friend. I tell you I must have De Grissac's snuff-box without further delay. If that does not solve the problem, we are at the end of our rope."

"It will solve it," the other man replied imperturbably. "I have positive assurance to that effect. Furthermore, I have every reason to believe that we shall receive word from London before the end of the week."

"Have you received any word?" the doctor inquired eagerly.

"Yes. The attempt was to be made either to-day or to-morrow. Our man will report to you at once. He knows nothing of the matter, of course. He will deliver the box to you, and receive the money."

"Who is the fellow?"

"I do not know his name. I have not seen him myself. Gratz arranged everything in London. I considered it very important that nothing should occur which would connect us with the matter in any way. M. de Grissac will discover his loss very quickly and will use every effort to prevent the box from falling into our hands. Gratz and the others would invite suspicion at once. The fellow they have chosen to handle the matter is unknown to the French police. He will attract no attention from that source. The plan appears to be perfect."

The doctor nodded slowly, chewing on his cigar.

"I hope you are right, Mayer," he said, and looked at his watch.

As he finished speaking, Grace heard some one approaching her from behind, but she paid no attention. In a moment the attendant reached her and touched her lightly on the arm.

She turned, gazing at the woman with staring, unseeing eyes. The latter looked at her keenly, then began to lead her along the bridge toward the main building.

When they reached her bed-room, the nurse turned on the light suddenly, glancing at Grace's face as she did so. The girl did not dare even to blink her eyes.

"Sit down," the woman commanded, sharply. Grace sank upon the edge of the bed. "Take off your shoes," the nurse went on, in a stern voice.

The girl had slipped on a pair of bedroom slippers. She proceeded to remove them mechanically, fumbling with them as though trying to unfasten the laces of a pair of shoes.

"Now your dress," the nurse ordered. Grace began awkwardly to remove the dressing-gown she had thrown about her. When the woman told her sharply to get into bed, she did so without a word, apparently quite unconscious of what she was doing.

It was a splendid piece of acting, and she did it so well, that if the nurse had any doubts as to the reality of her somnambulist condition they were at once dispelled. As soon as the girl placed her head upon the pillow, she pretended to be sound asleep, her eyes closed, her breathing regular and slow. After a time, the attendant put out the light and left the room.

The girl lay still for hours, wondering what there was in the strange conversation she had overheard that could help Richard in his efforts to recover the stolen snuff-box. That it had been stolen she knew; that it had not yet been delivered to Dr. Hartmann she also knew.

Perhaps Richard might have succeeded in recovering it before now; if not, the messenger bringing it to the doctor's office would undoubtedly arrive the next day.

She determined to rise early, in order that she might, if possible, send word of what she had heard to Brussels by means of the young man who drove the delivery wagon.

(To be continued.)

The Growth of the Soul.

How does the soul grow? Not at all in a minute; Now it may lose ground, and now it may win it; Now it resolves, and again the will faileth; Now it rejoiceth, and now it bewalleth; Now its hopes fructify, then they are blighted; Now it walks sunnily, now gropes benighted; Fed by discouragements, taught by disaster; So it goes forward, now slower, now faster, Till, all the pain past, and the failures made whole, It is full grown, and the Lord rules the soul.—Susan Coolidge.

L'envoi.

When earth's last picture is painted, and the tubes are twisted and dried, When the oldest colors have faded, and the youngest critic has died, We shall rest, and, faith! we shall need it—lie down for an aeon or two, Till the Master of All Good Workmen shall set us to work anew!

And those that are good shall be happy, they shall sit in a golden chair; They shall splash at a ten-league canvas with brushes of comets' hair; They shall find real saints to draw from—Magdalene, Peter and Paul; They shall work for an age at a sitting and never be tired at all!

And only the Master shall praise us, and only the Master shall blame; And no one shall work for money, and no one shall work for fame; But each for the joy of working; and each in his separate star, Shall draw the Thing as he sees it for the God of Things as They Are! —Rudyard Kipling.

Pauline Johnson.

(Tekahionwake.)

Lone Voyager! Thy Ship of Dreams Spreads its free sail and slips away Into the distant visioning That lies behind the end of day.

The restless, tide's impatient wave In from the broad Pacific rolls, And sunset marks a mystic way To the far-shining Port of Souls.

We, watching on the darkening shore, Wave you farewell and strain our eyes Till that bright speck which is your sail Is lost in the enfolding skies.

Brave Heart, Sweet Singer! Speed you well To those dim islands of the blest, Far, far, and ever farther—till The end of distance brings you rest! —Isabel Ecclestone Mackay.

A Winner.—It was at the dinner-table and the hostess address her husband's brother:

"Do have another piece of pie, William."

"Why, really, I've already had two; but it's so good, I believe I will have another."

"Ha, ha!—mother's a winner!" said little Frank, excitedly. "She said she'd bet you'd make a pig of yourself."—Harper's Magazine.

Where It Began.—The building of the Tower of Babel was progressing nicely when suddenly some one asked: "How are we going to solve the trust question?"

Thence arose such a confusion of tongues that no one has been able to understand any one else ever since.—Life.

"Casey," said Pat, "how do yez tell th' age of a t-u-rkey?"

"Oi can always tell by the teeth," said Casey.

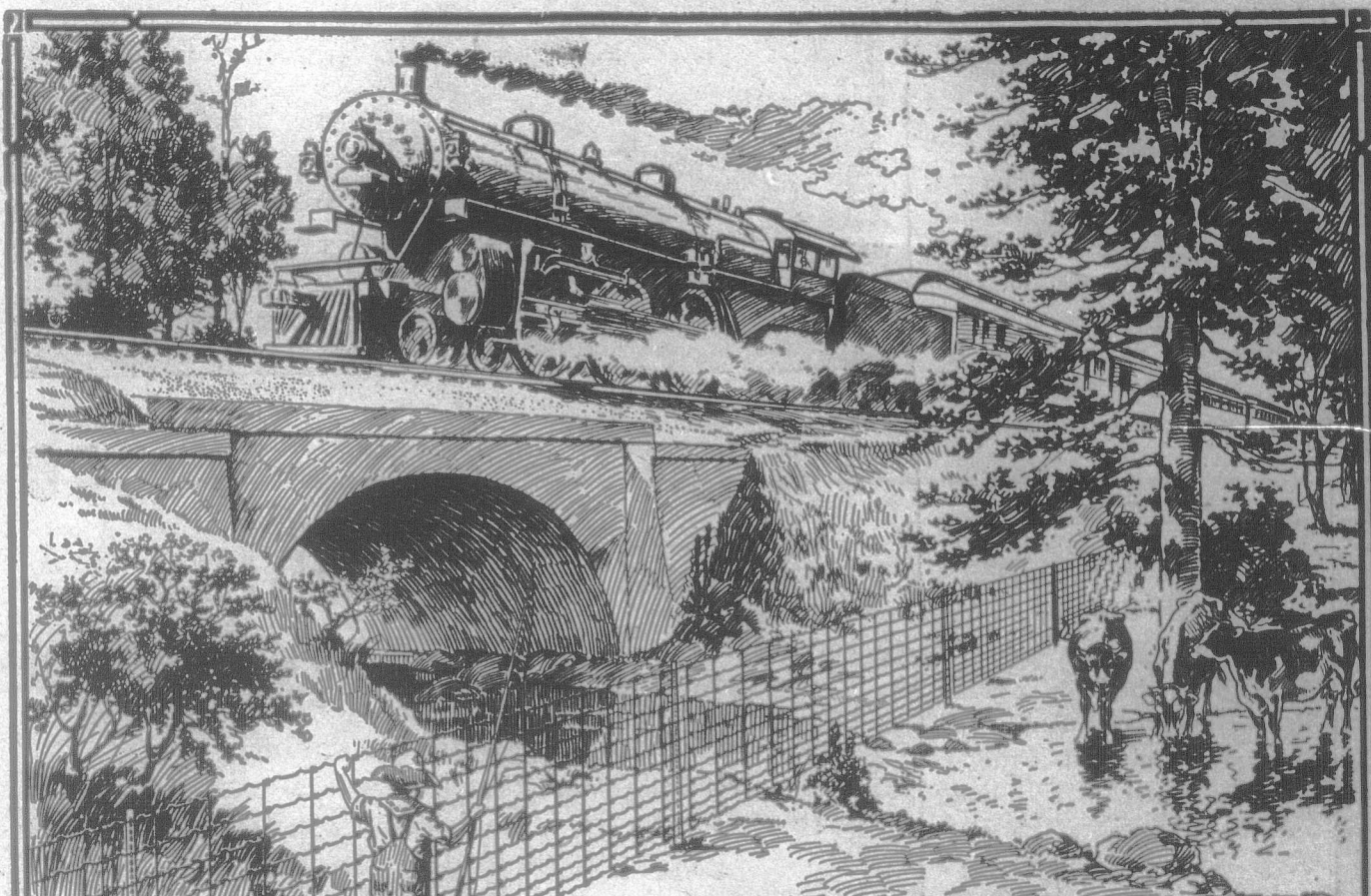
"By the teeth!" exclaimed Pat. "But a t-u-rkey has no teeth."

"No," admitted Casey, "but Oi have." —London Opinion.

Suggestive.—"How do you pronounce 'de luxe'?"

"Rhyme it with 'crooks' and you're not far off."—Boston Transcript.

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Manufactured by Joseph Rogers, Sheffield, England. Jackknife and Penknife, both nickel-handled and having two blades. Manufactured specially for "The Farmer's Advocate," worth, retail, \$1 each. ONE NEW SUBSCRIBER FOR EACH KNIFE.

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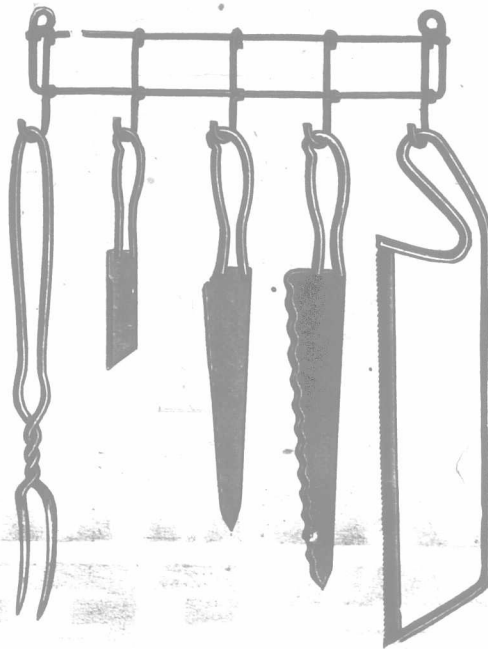


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Old and New Testaments in beautifully clear, legible type; references, concordance to both old and new Testaments. Index to names of persons, places and subjects occurring in the scriptures. Twelve full-page maps; all excellent in type and outline. This book is of most convenient size, being 7 x 10 inches when open; weight, 23 ounces; and would sell at regular retail price from \$1.00 to \$1.50. ONE NEW SUBSCRIBER.

"The Vision of His Face"

By Dora Farncomb, writer of Hope's Quiet Hour in "The Farmer's Advocate," contains 18 chapters, 224 pages, in cloth with gilt lettering. 75c. or ONE NEW SUBSCRIBER.

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By Anison North—A Canadian farm story, bound in cloth, illustrated. Buffalo Courier says: "It is far above the ordinary run-of-fiction." Toronto World says: "Should be in all the homes of the people." Cash, \$1.00, or ONE NEW SUBSCRIBER.

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Six Months' Credit Any subscriber may have the date on his own label advanced 6 months, for sending us the name of one new subscriber and \$1.50.

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Send for Sample Copies and Agent's Outfit To-day.

The William Weld Co., Limited, London, Ontario

A Breton Barber Shop.

The old woman who lived in a shoe really knew very well what to do with her many children. She "spanked them all soundly and sent them to bed," Mrs. Frances M. Gostling, in "The Bretons at Home," describes a barber shop where the same expedient had, in part, at least, been employed. It should be explained that in Brittany the beds are set in little recesses in the wall, and the people lie as on a closet shelf.

I had gone with my husband to find a barber. It was dusk when we entered the one room of the tiny cottage, and work was over for the day. The last customer sat idly in a corner, gossiping with the barber's wife, while the man of razors himself was idly glancing over last week's newspaper. It was too dark to see the details of the room, but I managed to find an oak chest in front of a bed, and sat down to watch proceedings.

It was a curious sight. In the middle of the room sat my Englishman in his light tweed suit, a towel round his neck, his face covered with ghostly, gleaming lather. In front of him stood the barber's wife a lighted candle in her hand, to guide her husband in his work. Finally, his thin, cadaverous face almost touching that of his victim, the barber himself, his left hand holding my husband now by the nose, now by the chin.

Suddenly, behind me, I heard a movement and felt a warm little hand on the back of my neck. There was a smothered laugh, and I turned to see a pair of eyes twinkling at me from the black depths of the cupboard bed against which I was sitting.

"Taisez-vous donc!" growled the barber, mildly, still intent on his work. But the laugh had broken the charm. From every corner came rustlings, giggles, little voices, and shining merry eyes. And everywhere there were beds—beds full of boys and girls.

"Why, however, many children have you?" I asked, as soon as the bewilderment of finding myself surrounded by this crowd of onlookers allowed me to speak.

"Fourteen, madame," replied the woman.

"The house is so small that we console ourselves by the size of our family," remarked the barber, jocosely; at which there was much merriment in the cupboard beds.—Youth's Companion.

The Different Note.

The teacher turned the slip of paper over with a smile. "I think I shall have it framed and hung on the wall for my encouragement whenever I am cast down," she said.

"What can be in it?" questioned her friend. "I don't get any notes from mothers that I want to hang on the wall."

"This is the first I wanted to keep. It is from Mrs. Warren, and tells me how pleased she is that Teddy is doing so well and is so interested. And there is added a complimentary word for the teacher. I can't tell you how it cheered me. I think in my ten years' experience I have had all the varieties of complaining notes, but this is the first praising one. I'm interested in all my pupils, of course, but I can't help feeling a little additional interest in Teddy since I see that my efforts are understood and appreciated."

"I suppose lots of mothers feel grateful to a teacher for her efforts," said the other, musingly.

"Well, I wish more of them would take the trouble to say so," said the first.—March Mother's Magazine.

Placing Daniel.—"Who was Webster?" asked a member of the school board. "A statesman," said one boy. "An orator," said another. "But what is a statesman?" asked the captain. "A man who goes around making speeches," answered a small boy. "That's not just exactly right," said the gentleman, smiling. "Now, I go around making speeches once in a while, but I'm not a statesman at all." "I know," spoke up a bright little fellow. "It's a man who goes around making good speeches." —Christian Register.

My Vagrant Heart.

My heart it wandered far away among the gipsy tents.

I know not how it learned the road, or found the pattran, But thorn and bramble drew aside, And copse and thicket opened wide, While creepers waved long arms to guide

Among the upland scents, Till close among the trees there gleamed the white spread caravan.

But when it wandered home again, I knew it not for mine, So sweet it was of wood smoke and the breath of sun-warmed pine; I hardly bade it welcome, scarce dared to give it room, So strange and sweet it laughed to me from out the starlight gloom.

My heart it followed fast and far along the Open Ways.

I know not how it kept their pace and stumbled not nor failed; But rock and sapling lent their aid, The beechland offered friendly shade, And sumach flamed within the glade With cheering beacon blaze, That shone upon the hidden path when sunset streamers paled.

But when it homeward turned at last, I knew it not again, So wretched it was bracken, sweet with heather mist and rain; I heard its plaint beside the gate, but scarcely stirred or guessed, So pleading soft it called to me, so full of strange unrest.

My heart it wandered hand in hand with dark-eyed gipsy folk,

I know not how it knew its kin, or learned its own desire; Or why within its mem'ry clung The gipsy jargoning chance-flung Or found so ready on its tongue The romany they spoke, While night winds wakened into flame the embers of their fire.

But when it lilted home to me I knew it not at all, So wild and strange the moor wind sang within its sudden call; I only heard the gipsy folk trail by with covered wain, And found a spray of jasmine flung within my latticed pane.

MARTHA HASKELL CLARK.

To a Toad.

Thou poor, half-living brother worm, Retreating from my path pell-mell For fear my steps might crush thy fame: Perchance from such condition came Immortal man, who dares to spell The characters writ on thy form! Perchance within this human brain There linger traces of the things That make thee fit for earth's domain; Perhaps thou, too, mayst feel the pain Of life hid in the joy it brings!

A silver moon is on the wane; A lonely star calls after it For company,—do thy big eyes Regard their movements with delight, As though some great illumined kite Were drawn athwart the purple skies, Its tail swung by a lantern lit? Or do these wonders from thee pass While thou art blinking at the grass? Henry Dumont in "A Golden Fancy."

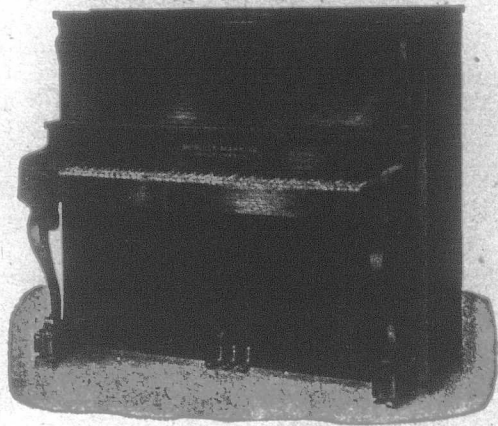
Poets With Power.

"Twinkle! twinkle! little star," the poet said, and lo! Way above the earth so far the stars atwinkling go. —San Francisco Call.

"Roll on, thou deep blue ocean roll!" another voice was heard. And ocean rolls obedient to his mandatory word. —Louisville Herald.

"Blow, blow, thou winter wind," the third one gave command. And every winter now we hear it blow to beat the band. —Boston Transcript.

"Thou, too, sail on, O ship of State," a poet once did sing; And ever since the ship of State's been doing the same thing. —Yonkers Statesman.



Style 105

Your Money and That Piano

There is no question about the sterling value of your money: Nor should there be any question about the lasting value of the piano you are going to get for it. There will not be if you buy a

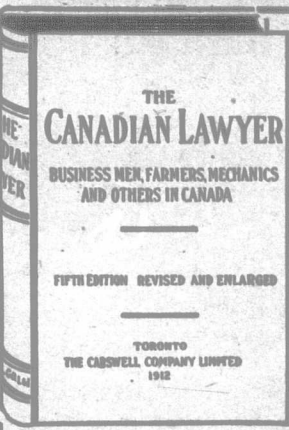
SHERLOCK - MANNING 20th Century Piano

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The Canadian Lawyer OR HOW THE FARMER CAN KEEP OUT OF LAW SUITS

THE "Canadian Lawyer" is a book that will protect the farmer against the sharp practice of agents or any person else, who might like to get him in a tight place. It gives the most important provisions of the Laws of the Dominion and of each of the Provinces. The information is given in simple, every-day language, so that farmers will be able to do a great deal of their own business strictly in accordance with the law, without having to pay each time for a little bit of ordinary advice. It also gives simple and correct forms for the preparation of all kinds of legal documents that a farmer would ever have occasion to use. Chattel Mortgages and Bills of Sale are explained fully—how to make them, the law in regard to them, and when to use them. Similar information is given regarding Cheques, Liens, Notes, Land Mortgages, Promissory Notes, Receipts and Wills; instruction as to Exemption from Seizure for Debt; the Law in regard to Line Fences; the use and form of Powers of Attorney, and in fact everything else that a farmer would require to know.

The book contains 453 pages, price \$2.00 in good cloth binding, and will be sent, postage paid, when cash accompanies the order. Send your order direct to the publishers: THE CARSWELL COMPANY, Limited, 19 DUNCAN ST., TORONTO, CANADA

Advertisement for Black Victor Meat Foods. It features a large illustration of a rooster. Text includes: "A Little Meat — A LOT OF EGGS", "Every modern poultry raiser knows that a good egg yield cannot be obtained without animal food. Good Meat and Bone, fed in proper proportions, is the most profitable investment you can make in winter feeding. But it is also the most expensive part of the rations. When it comes to concentrated Poultry foods, Black Victor—fresh, healthy meat and clean bone, with all the waste and moisture removed—will prove the most economical and profitable. Black Victor Meat Scrap at your dealers, or sent, all carriage charges prepaid, for \$4.00 per cwt. Write for complete price-list before the best egg season is past. Matthews-Blackwell Limited Toronto"

Advertisement for Bell Portable Sawmills. It features an illustration of a portable sawmill. Text includes: "Farmers or threshers who have Portable, Traction or Gasoline Engines, can make good money sawing fallen timber in their locality during the spring and summer months with one of our sawmills. Prices from \$260 up. Write us for particulars. The ROBT. BELL E. & T. CO., Limited Seaforth, Ont."

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MESSRS. GATESBYS, LTD. [of London]
Dept. "A," 119 West Wellington St., Toronto, Ont.

Please send me your new season's Style Book and 72 pattern pieces of cloth. I am thinking of buying a suit—overcoat.

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Look Here, Sir!
If you can get a suit valued at \$25.00 in Canada for \$12.50 from Catesbys in London---Will you buy it?

We undertake to prove to you that you can—if you buy from us. You've heard that clothing is cheaper and better in London. You know, also that you can't beat the quality of the genuine English fabrics. When, therefore, we guarantee to sell you a suit made of fine English cloth, cut in the best Canadian, New York or London style (as you prefer), laid down at your door, all duty and carriage charges prepaid, for a price about one-half of what you would have to pay in Canada, isn't that worth looking into? Of course it is. Then sit down right now, fill out the above coupon, mail it to our Toronto office, and get our latest Style Book and patterns. With this book is a letter explaining our system of doing business and a self-measurement form which is so simple that you can't go wrong in using it. We'll also send testimonials from a hundred satisfied Canadians who regularly buy from us.

Get these patterns now and be convinced.

If you don't want to cut this paper, write a postal or letter, and we'll send the patterns anyway, but to get them you must mention London "Farmer's Advocate."



GATESBYS, LTD.

[Of Tottenham Court Road, London, Eng.]

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The "Burlington"

This shows the most popular style of suit worn by well-dressed men in Canada. The materials used are specially selected for this shape of suit.

\$12.50

Duty Free and Carriage Paid.

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Rods would have prevented the bulk of these losses. Prof. Day says, that out of every Thousand Dollars' worth of damage done to unrodded Buildings by Lightning \$999 would be saved if these buildings were properly rodded. This he says after 13 years of systematic, careful skilled investigation, and he backs it up with data carefully compiled, and which is incontestable.

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They are well made—of copper—heavier than the acknowledged requirements. With the metal on the outside where it is needed and the Sheath made indestructible by a Lock Joint fastening.

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a shade tree. Fruit, Ornamental and Evergreen trees, Shrubs, Roses, Grape Vines in great variety. Send for our priced catalogue, it's been our agent by mail over 30 years. No experiment when ordering at the Central Nurseries direct. Prices right, so are the offers. Get busy while we are in good variety—choice seed potatoes, etc.

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

Old Tom.

By Alice Jean Cleator.

John Porter mounted the veranda steps with an apprehensive heart. Yet he reassured himself. "Women are such silly sentimentalists in such matters—always letting their sympathies run away with them."

"Better brace 'up and tell her—the sooner the better."

Mrs. Porter looked up smilingly from her letters which the postman had just left. Her pleasant attitude made his task the harder. But feeling that the dreadful ordeal would give ease in his troubled conscience he sat down and began:

"Now, Doris, you mustn't take on over what I'm about to say. But I may as well out with it first as last. I've sold Old Tom. I hadn't expected to sell the old fellow; I'm sorry already, but I had a chance to get fifteen dollars for him, and if he couldn't have got rid of that cough and rheumatics, even a jockey soon wouldn't have bought him for three."

Porter expected a protest of words but there was complete silence. The accusing sentence of a court of justice could not have given him a keener torture.

At last, in a strange tone his wife inquired:

"Who bought Old Tom?"

"Tony Menzi."

"That huckster that was around yesterday?"

"Yes."

"Has the man gone?"

"Yes, he started with him for the city at three o'clock this morning."

Then Mrs. Porter "spoke."

"John, I'm going to say something I've never thought, felt, or said before! I'm ashamed of you! You've often made a protest at cruelty in the community, but what have you done but a thoughtless and cruel deed? Tom gave us twenty years' work for nothing but his board. He's hardly ever had a whole week-day of rest. It's been Tom here and Tom there, always put to do the extra jobs, and trips to town often when he was tired out. And now, just because he was getting old and lame and had a cough, you've sold him to a life of misery and neglect. I thought you despised a traitor. But what else have you been to Old Tom? I wish I could at least have said good-by to him and told him how faithful he has been!" Porter knew he had the wrong side of the argument, yet he made a spirited defense, saying that farmers were a practical sort and couldn't let "chicken-heartedness" stand in the way of business.

Seeing his words of no effect, a happy thought struck him.

He took out his pocket-book and tossed three five-dollar bills into his wife's lap.

"I heard you talking about a new dress the other—"

But she did not wait for him to finish.

"Do you think I could wear a dress bought with the price of Old Tom? I'd rather wear a three-cent calico!"

Little more was said, but each day at the time Porter had been used to prepare Old Tom's bran mash he had a strange sense of remorse and longing for the faithful old creature, and a feeling of loneliness came over him as he passed the empty stall.

Over a year later, Porter on a business trip, was driving his "machine" through a beautiful section of country several hundred miles from home.

He heard angry shouts and saw a short distance ahead a heavily loaded wagon and a fallen horse.

Something was wrong, and he stopped his auto.

The wagon was twice too heavily loaded for the old horse that evidently had passed from one master to another and had at last become the victim of the jockey and been sold to an ignorant, coarse peddler.

The man had been whipping the horse, but finding that of no use was securing a fence-rail to further beat the old creature.

"Put that club down!" commanded Porter. "What's the trouble?"

The peddler obeyed, pointing angrily to the horse and wagon.

"He notta no good! I pay t'ree

dollar! Man cheat. Horse notta no good! I kill him!"

Porter freed the horse from the miserable, ill-fitting harness. A faint neigh of recognition greeted him. It was Old Tom!

"It's the first time John ever forgot," thought Mrs. Porter with a wistful smile as the day passed on to afternoon and no reference was made to her birthday. The pleasing little "surprise" gift that always marked the day was lacking.

She heard voices at the side veranda and going out, was greeted by a sight that filled her eyes with joyful tears. Her birthday gift had not been forgotten! Old Tom's familiar face greeted her—just a shadow of his former self, silent as to the harrowing experiences of the past year, but neighing for joy at the sound of her familiar voice.

"Old fellow, your vacation has just begun," said Porter, "but I fear it's come pretty late. You'll be a star-boarder as long as you care to stay. I've learned my lesson."

Old Tom was a "star-boarder" for two months. Then one dreamy autumn morning he was found "asleep," under the whispering chestnut tree where in his busy life he had seldom had a restful hour in its peaceful shadows.—Our Dumb Animals.

'Bout De Lady H'of De Snow

By Clarence W. McCuaig.
In "Canadian Century."

Dey talk about de wedder.

In dis country,— "Dat it's cole,"
An' dat h'Engleesh fella Kiplin',
Tinks we've got de ole North Pole;
But, ba gosh, dey don't know noting
Of h'our lan' an' how she's grow,
Ef 'e did, 'e'll change 'e's notion
'Bout de "Lady h'of de Snow."

Dat's true, we've got de Winter,
An' h'our wedder's hard to beat,
But dere's something in de h'air here
Dat makes you keek you're feet.
Yet all de same, I lak dat fine,
Fer it makes ye smart to go;
You can't put on too much hustle
When de froes' es crack de snow.

We hear tole lots of story,
Bout de man what es behin',
Dere's de man behin' de ole gun,
Dere's de man behin' de time,
Dere's de fella tinks he knows it all.
What leaves across de sea,
But dey make one very, beeg meestake,
'Bout de wedder on dis countree.

Fer we're not pile up wit snow-bank
From de Spring de whole year roun',
An' dere's more dan beeg, white snow-
ball
H'on dem apple-tree dat's foun.
Ef you'll drop aroun' h'on September,
An' make leedle tour wid me,
I'll be show you juicy h'apple,
Wid red cheek, h'on dat same tree.

In de Summer, when I'm workin',
H'on de farm, cuttin' de hay,
Gosh, it's hot, just see me sweatin'!
I'm very scare for melt away,
Fer de Sun 'e gets up h'early,
You can boil h'eggs h'on de groun',
An' 'e makes you wishin' h'of'en
Some dem snow-banks could be foun'.

I'll be travel many countree,
Work in h'Egypt, h'on de Nile,
Fire some gun off in de Soudan,
De tam we fix, dem nigger wile;
Den I'll pass me h'on de Klondike,
Dere it's cole! Well, yes, sir-ree!
Den I'll get job on de States, too,
Wild Leduc, on Kankakee.

But in all dem place I'll travel,
There's no place lak ole Quebec,
Plentee work,—and healthy wedder,
What more kin one h'expect?
H'on de Winter-time we're happy,
Lots of wood, and plentee snow,
Carnival and jolly pleasur,
Drivin' roun' in ole burlow.

Here we've got de lan' of sunshine,
Plentee room an' good, fresh h'air,
H'every saison has 'es pleasur,
An' fer wile, bees', "Don't be scare."
An' h'our lan' can grow de bes' crop
H'of all kin'—you never saw,
I'm no shame, at all, for sayin',
"Hurrah pour Quebec, Canada."

JOHN DEERE IMPLEMENTS

STANDARD FOR THREE GENERATIONS

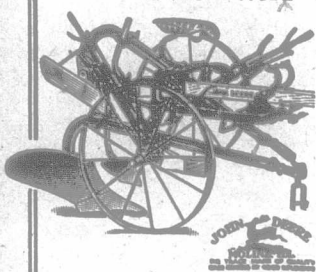
The reputation of JOHN DEERE goods is the result of over seventy years' successful implement manufacturing experience.

When JOHN DEERE built the first steel plow in 1837, he started a work that later made the name "JOHN DEERE" famous all over the country for high quality in farm implements.

Quality of material, workmanship, design, etc., mean satisfaction to the purchaser. You get all these when you buy a JOHN DEERE implement.

Read About the Superior Points of These Implements

NEW JOHN DEERE TWO-WAY FLOW



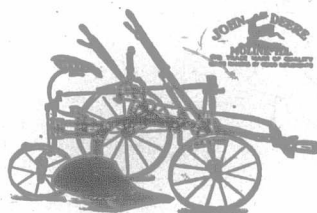
The Plow with the Auto Foot Shift

THIS is a very efficient plow, especially adapted to hillsides and irregular-shaped lands, but is useful in any kind of plowing.

Frame is made of wrought steel—strong and rigid. The axles, balls and wheels are all steel—castings are malleable iron.

Each plow is entirely independent of the other—has its own operating lever for adjusting depth and its own lifting device. Clevis shifts automatically.

The lift is done entirely by the team—the operator simply presses the lifting lug into the ratchet on the wheel with the foot, thereby leaving the hands free to manage the team.

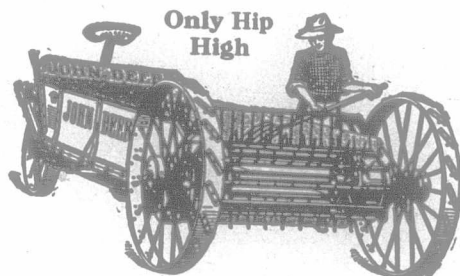


JOHN DEERE STAG SULKY PLOW

ON the Stag Sulky, wheel brackets are attached directly to the beam. This does away with a frame and makes the plow stiff, strong, but light and handy.

Hitch controls the plow perfectly, making a pole unnecessary.

The Stag is very light of draft, will not clog with trash, and does the highest grade of work. Any style bottom can be furnished.



Only Hip High

THE John Deere Spreader is a low-down spreader in which the advantage of big drive wheels is not sacrificed for the low-down feature.

It is a spreader that is easy for your horses because it has these big drive wheels, together with roller bearings, few parts, the centre of the load comparatively near the horses, and evenly distributed over all four wheels.

There are no clutches to get out of order, no chains to give trouble, no adjustments necessary.

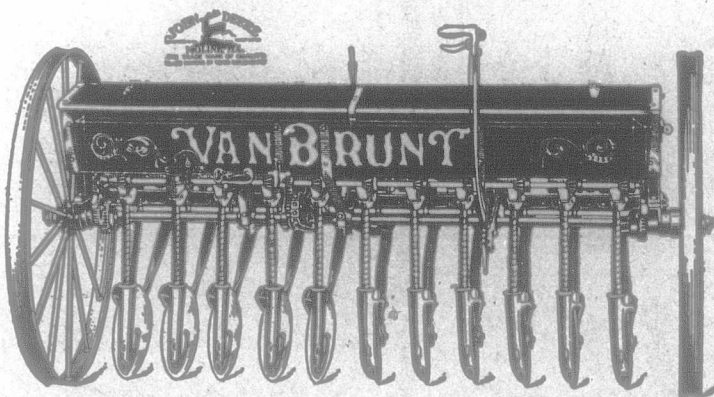
Built with a steel frame, securely braced, strong and durable.

Only hip-high—easy to load. Each forkful is placed just where it is needed. You can always see into the spreader.

Mounting the beater on the axle makes all these things possible in the John Deere Spreader.

IT WILL PAY YOU WHEN YOU BUY

VAN BRUNT FERTILIZER DRILL The Drill That Cannot Choke Up



VAN BRUNT Fertilizer Drills do such thorough work because they have adjustable gate force feeds. Both seed and fertilizer are forced from the hoppers. Amount of seed planted or fertilizer distributed is regulated by merely shifting feed gauge lever, and same amount passes through each tube into the ground. Each wheel drives

guaranteed to last lifetime of drill. Only one oiling per quarter section is required. Spring steel scrapers keep discs absolutely clean at all times. There is never any clogging up with a Van Brunt Drill even in trashy soil.

LIGHT DRAFT

Van Brunt Fertilizer Drills are the lightest draft of any on the market, because they are the lightest weight, and most simple construction. The

SPRING PRESSURE FURROW OPENERS

Individually adjustable pressure springs force discs to make furrows of even depth in any kind of soil that can be seeded. Metal tubes protect seed until it reaches bottom of furrow.

The discs are of highest quality steel. Oil-tight bearings are

GRASS SEED ATTACHMENT.

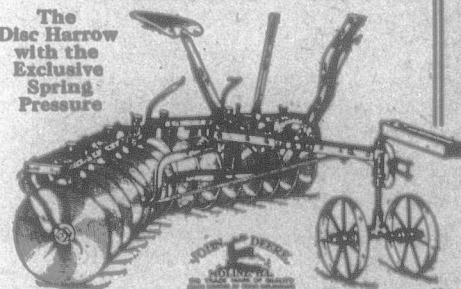
This attachment can be furnished on any Van Brunt Drill. It is placed just ahead of the regular seed hopper and will either drill or sow broadcast, as desired.

Van Brunt Drills have made their way by the way they are made.

solid steel, frame, bridge trussed hopper, and bearings extending well under frame make the Van Brunt a Drill that lasts.

JOHN DEERE MODEL "B" DISC HARROW

The Disc Harrow with the Exclusive Spring Pressure



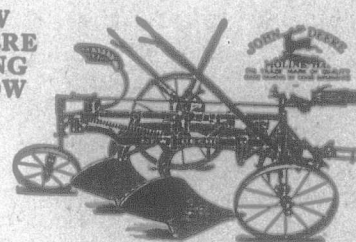
THE frame of the model "B" Disc Harrow is built of double steel bars. They are securely riveted together, and the entire machine will stand any strain it encounters.

Deere disc blades are made of highest quality steel, thoroughly polished on cutting side and ground to a sharp cutting edge.

Bearings are hard maple, oil-soaked, very durable and cheaper to replace.

The Model "B" Disc Harrow is the only spring-pressure and, therefore, the only flexible harrow built.

NEW DEERE GANG PLOW



IN this plow you get strength, durability, light draft and ease of operation. Plows are easily gotten into the ground by giving the foot trip a slight kick. May be raised by an easy push on foot lift.

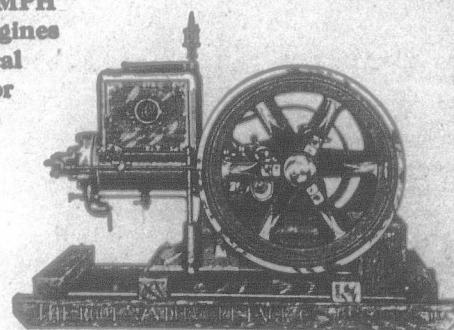
In addition to foot lift the New Deere is equipped with a hand lever.

JOHN DEERE MANURE SPREADER The Spreader with the Beater on the Axle.



THE most careful attention is given to the construction of this wagon. Only well-seasoned, carefully selected material is used. Hubs are barrel-shaped—of large diameter. This prevents moisture from working in and rotting hub. It is strongly built throughout and very light draft.

R & V "TRIUMPH" Horizontal Engines The Practical Engines For Farm Use



1, 2, 4, 6, 8, 10 and 12 Horse Power.

MAKE farm life pleasant for man, woman and child by getting an R & V Engine on your farm. It will run everything from a washing machine to the largest machine on the farm, and do it easily.

Well built in every respect, it will develop more than the rated horse-power. You can depend upon it at all times to do the work for which it is intended.

Detachable cylinder is easier and cheaper to replace, if damaged, than cylinder cast in one piece with engine bed, as on most engines.

Is absolutely safe to operate in or around the house or barn and gives the most service with the least attention.

Your John Deere dealer will be glad to tell you about these machines.

JOHN DEERE PLOW COMPANY of Welland, Limited TORONTO, ONTARIO

If you want any additional information, write to us—we'll be pleased to send it Free.



Think of the Company behind the car--and you'll realize why Fords and Government bonds are bought with equal assurance. Strongest financially -- world-wide in scope--largest in volume of output. We build our reputation into the car. Better buy a Ford.

Six hundred dollars is the price of the Ford run-about; the touring car is six fifty; the town car nine hundred--f.o.b. Ford, Ont. complete with equipment. Get catalogue and particulars from Ford Motor Company of Canada, Limited, Ford (formerly Walkerville) Ont.

The expense of living

makes adequate protection for the family more imperative than ever.

Why delay when such protection can be obtained, while at the same time making provision for your own old age. Life Rate Endowment Policies completely meet the circumstances.

Issued only by

The London Life Insurance Co.

LONDON

CANADA



The good old way improved

Money in Your Sugar Bush

Preserve the real maple taste in your maple syrup by boiling it down in the

PERFECT Maple Evaporator

Simple to operate. Price so moderate that anyone can buy. Made of first quality material. Sold you direct. Makes the small bush profitable. Every one guaranteed. If not as represented when it reaches your station, fire it back at our expense.

Order now and be ready to take care of your early runs of sap, the best and most profitable you get.

Send us a list of just what you want, and get our lowest price on the entire outfit.

What one customer says:—

Gentlemen:—Your Evaporator is a first-class article. Makes the finest quality of syrup and uses very little fuel. It makes syrup-making a very profitable business. The investment is so small, and there is always a ready market for the syrup. I cheerfully recommend it. JAMES MOORE, Queensboro.

WRITE FOR CATALOGUE TO-DAY.

Y 72.

The Steel Trough & Machine Co., Ltd., 145 James St., Tweed, Ont.

Shorthorn Cattle, Dairy Cows, Shropshire Sheep (40 Cattle) WELSH PONIES (50 Sheep)

The property of J. LLOYD-JONES, Burford, Ont.,
to be sold AT AUCTION on

Friday, April 3rd, 1914

This offering comprises registered Shorthorn cattle, Holstein, Jersey and Shorthorn grade dairy cows, 50 excellent breeding ewes and some choice Welsh ponies. The cattle are all in nice breeding condition. The Shorthorns include a number of young heifers of milking strains. The dairy cows are all heavy producers and fresh. The 50 head of Shropshire ewes and ewe lambs are as nice a flock as may be found in the Province. The farm of 160 acres is also offered for sale.

G. T. R., Burford, one mile.

Telephone 24

Questions and Answers.

1st.—Questions asked by bona-fide subscribers to "The Farmer's Advocate" are answered in this department free.

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.

Sore Shoulders.

Would you please tell me what is the best wash to make a colt's shoulder tough for spring work? M. E. A.

Ans.—In the Horse Department of our number of March 5th, there is a short treatise on the prevention of sore shoulders in horses. There are several treatments mentioned there, but there is another one which is often used which is an application of salt and water to the horses' shoulders after they have worked and the collar removed. Others use alum and water, simply as an astringent to harden the shoulder, and as a preventive for raw sores. An old treatment, and one which has given results in the past, is to take white-oak bark and boil it down, and boil the extract from it until it is in kind of a fluid or liniment form. This is also rubbed on the horse's shoulder. It would be hard to say which is the best of these three preventive treatments. The practice such as is prescribed in the article mentioned with any one of these would quite likely give good results.

Seed Per Acre.

1. How many bushels of potatoes will it take to plant an acre of ground; rows three feet apart; potatoes one foot apart in the row?

2. How many thousand tomato plants will it take for one acre of ground; rows four feet apart; plants three feet apart in the rows? SUBSCRIBER.

Ans.—1. The information, as far as it goes, is very explicit, but to tell you exactly how many potatoes it would take, we would have to know the number of eyes on each potato, and how many eyes you purpose leaving on each set. The nearest we can come to it is to say that it will require about fifteen bushels per acre. Large, healthy sets, with one eye on them, do very well, so if your set is very good, you might be able to plant them with less, but experiments have shown that the larger the sets the more profitable is the crop, and now some growers use over twenty bushels of seed per acre. We would say that fifteen bushels would be a very good estimate upon which to base your calculations for the spring seeding.

2. 3,630 plants.

Fertilizer for Tomatoes.

What is a good fertilizer for tomatoes which are to be put on fall-plowed clover stubble? The land is sand and gravel. When should it be applied, and how mixed? R. B.

Ans.—Fertilizer companies sell a fertilizer especially for tomatoes which is fairly high in nitrogen and quite high in potash. Tomatoes require a fertilizer quite strong in potash. This can be purchased from any of the fertilizer firms. If you wish to mix it yourself, combine 130 pounds nitrate of soda, 370 pounds acid phosphate, and 160 pounds muriate of potash. This fertilizer may be put on during the cultivation or preparation of the land prior to planting, or it may be put in proximity to the plants, after they are set, provided you do not allow any of it to come into direct contact with the young plants. The mixing of this fertilizer is very simple. Put the three different constituents on a clean floor and shovel the three into one pile. Two men can better do this than one. After they have shoveled over once in this way, shovel them over once or twice more, the same as you would prepare concrete. Always shovel from the side of the heap, and as you put it into the new pile, allow it to drop on top and roll down the sides. In this way the small pebbles or hard lumps of the fertilizer will roll to the outside, where you can crush them with the shovel or with your foot.

Cedar Posts.

1. Will the small end of a cedar post last longer in the ground than the big end? I have heard some people say it will.

2. Would it be advisable to sharpen the end of the post that goes into the ground so that it could be driven back to its place in case the frost heaves it out? N. S.

Ans.—1. We are aware that there is quite a prevalent belief that the small end of a cedar post will last longer in the ground than the large end, but do not think that there is very much in it. Most of the posts we get nowadays are small enough at either end.

2. If the posts are small enough, or if you have power enough to drive them in, it would not be a bad idea to sharpen them, and, in case they heave, drive them back.

Veterinary.

Chronic Cough.

Pregnant mare has had a dry cough since last fall. J. T. O.

Ans.—Chronic coughs are very hard to cure. Give her every morning 1 dram powdered opium, 2 drams solid extract of belladonna, 30 grains digitalis, and 1 dram camphor, with sufficient oil of tar to make plastic. Roll in tissue paper and administer as a ball, or dissolve in $\frac{1}{2}$ pint of warm water and give as a drench. V.

Blister—Result of Wound.

1. Give prescription for a sweat blister.
2. Mare was cut on fetlock joint. A puffy swelling resulted, which I treated, and it has disappeared, but the skin is somewhat thickened. H. D. L.

Ans.—1. Two drams cantharides in eight ounces alcohol.

2. This is very hard to reduce. Get a liniment made of 4 drams each of iodine and iodide of potassium, and 4 ounces each of alcohol and glycerine. Rub a little of this well in once daily. V.

Constipation.

Two yearling calves refuse food, bowels do not move, and they froth from their mouths. They also have a cough. T. V.

Ans.—The cough indicates tubercular trouble, for which nothing can be done. The other symptoms indicate a constipated condition of the bowels. Give each $\frac{1}{2}$ lb. Epsom salts and $\frac{1}{2}$ ounce ginger, and follow up with $\frac{1}{2}$ pint linseed oil and 40 grains nux vomica every eight hours until the bowels move freely. If they will not eat anything, drench them with boiled flaxseed. V.

Disease in Sheep.

My sheep have some disease. They become dull, grind teeth, and try to get into a corner or some dark place, shake their ears, and become weak in their backs and hind quarters. One died without warning. H. C. G.

Ans.—A careful post-mortem of the one that died would probably have revealed the cause of death. In some ways the symptoms given indicate grub in the head, for which practically nothing can be done. In other particulars, they indicate partial paralysis, due to digestive trouble. Purge each with 8 ounces Epsom salts, and follow up with 30 grains nux vomica three times daily. V.

Eye Trouble.

Cow has a growth on the inside of her lower eyelid. It has been growing for about two months. A week ago the other eye became sore, and a scum has formed on it. I have put pulverized alum in it several times without results. W. J. J.

Ans.—The practice of putting powdered alum or other irritants into an animal's eye is very cruel, and causes the patient intense agony without doing any good. In fact, it increases the irritation. Keep her in a darkened stall. Get a lotion made of 15 grains sulphate of zinc, 20 drops fluid extract of belladonna, and 2 ounces distilled water. Bathe the eyes well three times daily with hot water, and after bathing put a few drops of the lotion into each. It is probable that you will have to employ a veterinarian to remove the growth mentioned, and if the eye ball is involved, the whole eye, in order to save the sight of the other. V.

An Income For the Farmer's Wife



THE wife of every farmer should have her own income and her own bank account.

And it does not matter how busy you are in the home, or how little time you have to devote to the raising of poultry we can show you how you can make a good income and build up a substantial bank account by poultry raising the Peerless Way.

We can show you how to be independent of the money your husband gets for his crops and other farm produce, so that when you wish to buy clothes, or take a shopping trip to town, you can just stop at the bank and draw all the money you will require.

The Peerless Way Makes Poultry Pay

If you know the right way to raise and keep poultry it requires very little outlay or money, and takes but very little of your time. The right way is the Peerless Way, that is, by hatching the eggs in a Peerless Incubator and rearing chickens in a Peerless Brooder.

Bowsman River, Man. "I bought a Peerless machine from a friend. It was the first machine I ever have seen, I brought out three hatches; the first hatch I got 137 chicks from 196 eggs, second hatch I got 143 chicks from 204 eggs, and the third hatch I got 134 chicks from 200 eggs. Intend starting another hatch this week. I like my machine fine and would not be without one again. Yours very truly, (Sgd) Mrs. Sol. Richet."

We have prepared a book for you entitled "Money In Eggs," if you would be interested in learning how other women like you are making independent incomes from the sale of eggs and plump chickens. Experience is not essential. We are practical poultry raisers ourselves and will furnish you all the information necessary to make your chickens pay you handsome profits.

Fill in and send this coupon now for full particulars. Lee Manfg. Co. Ltd., Pembroke, Ont. Please send me the booklet "Money in Eggs." Name..... Address.....

LEE MANUFACTURING CO. LTD. 106 PEMBROKE ROAD PEMBROKE ONTARIO CANADA

Questions and Answers. Miscellaneous.

Sheep on Shares.

I have sheep on half-share, and I am raising some on cows' milk. Could the owner claim a half share in those I raised by hand? J. P.

Ans.—We think so, but it would be scarcely equitable.

Horsepower for Engine.

Would you give me the horse power of a gasoline engine with a bore four inches and a stroke five inches, running between 400 and 500 revolutions? A. A. S.

Ans.—If this is a 4-cycle engine, it would develop about 2 horse-power. If a 2-cycle, about 1 1/2 horse-power. W. H. D.

Harvesting Timothy.

What is the best method of harvesting timothy for seed? Do you know of any book treating this subject? A. W. M.

Ans.—The general practice in harvesting timothy seed is to let it ripen; cut it with a self-binder; bind it into rather small sheaves; allow it to dry thoroughly in the shock, after which it is hauled to the barn. We do not know of any book treating this subject alone. We have several good farm books which cover the subject, and from time to time articles appear in "The Farmer's Advocate" going thoroughly into the matter.

Cutting Trees.

M and T own farms alongside of one another. M's fence runs on his farm for half the distance, then crosses to T's farm for the other half. Is ditch supposed to be the line between farms? Who owns trees between M's fence and ditch? T is cutting the trees. D. M.

Ans.—If the fence is not on the line, it would seem that the ditch is the line. We take it that the ditch runs down the line the entire length of the farms, and that for convenience, and likely by previous agreement, one-half the fence is placed on M, while the other half is on T, which would seem equitable. If the center of the ditch is the line, then trees on either side of it belong to the party owning the land.

Hotbed.

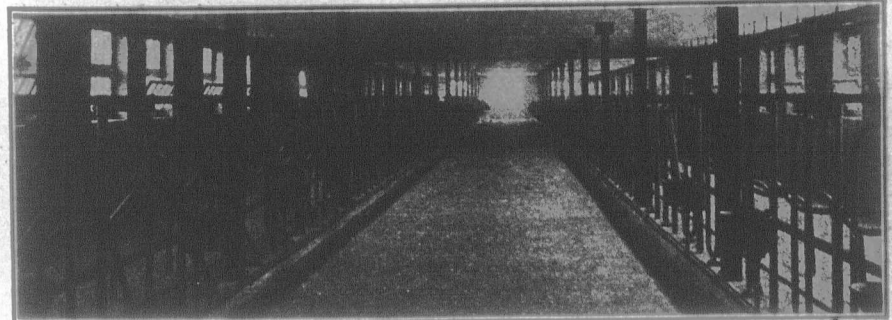
I have some storm-window sashes not in use, and have wondered if I could use them for a hotbed. As I know nothing whatever about one, I should require complete instructions. L. M. C.

Ans.—You require very little more information than is conveyed in an article in our number of March 5th, to construct one of these hotbeds. The whole idea is presented there, which simply means to excavate a hole a little larger than the size of your window-frames and put in about one foot and a half or two feet of horse manure and tramp it down thoroughly. On top of this, have at least four inches of loamy soil, preferably with some leaf mold mixed with it. The frame should be one foot in front and two feet high at the back, in order to give slope that the sun may strike it, and that water may run off. The glass should be a considerable distance from the tops of the little plants in the bed, so it is well to raise it some little distance above the surface of the soil.

Ferrets.

- 1. What is the age of a ferret?
2. What time do they mate?
3. How many young do they have?
4. What is the best feed?
5. What is care of young?
6. What is a polecat ferret?
7. What are the different kinds?
8. Is it necessary to keep male and female separate?
9. What is the period of gestation? E. L.

Ans.—1. Who knows? It might be one week or several years.
2. Twice annually.
3. Six to nine at a litter.
4. Bread, milk and meat.
5. Leave them with their mothers for some time, and when ready to wean, feed as above.
6. A polecat ferret is a brown breed, believed to be a cross of the wild polecat and the ferret.
7. Common and polecat.
8. It would be preferable.
9. Six weeks.



Cow Stalls Everlasting

Equip your barn to last a century by fitting it up with BT Galvanized Steel Stalls, and cement floors and walls.

You've seen how quickly old-style wood stalls soak up manure and become unsanitary and unhealthy for the cattle, how soon they rot and break, and how often they must be repaired. You know, too, all the time and trouble and money it takes to be constantly renewing them.

The old way is the expensive way. Try the new. Put in BT Steel Stalls, and you'll not have to spend a single cent in repairing your stable as long as you live.

Won't Break, Rot or Burn

We melt down steel rails to get the hard, 2-inch steel tubing for BT stalls. They're strong enough to stand the heaviest strain—we guarantee them. No manure can soak into steel! Steel won't rot! You can't burn steel! BT Steel Stalls will even outlast your barn.

Stable acids and moistures do not affect them, for every BT Steel Stall is carefully galvanized in our factory. The galvanizing material enters right into the pores of the metal so BT Steel Stalls won't rust. They always look bright and clean in the Barn.

The barn at the Boys' Farm and Training School, Shawville, Quebec, was equipped with BT Steel Stalls three years ago, and has twice burned to the ground. After the last fire, Mr. Mathews, Principal of the School, wrote us: "The contractor, with the permission of the directors, is going to use the 20 BT Steel Stalls again. They have been through fire twice, yet are as good now, except for a few replacements, as when we put them in first."

B.T. Galvanized Stable Equipment

BT Cow Stalls, Stanchions, Bull Pens, Calf Pens, Waterbowls, Columns—All of STEEL.

Think of the amount of stable work BT Galvanized Steel Equipment saves in a single year. It's always so easy to keep clean. No cracks or corners on the smooth, galvanized surface to collect dust or dirt. The steel can be washed off in a moment, and the stable kept always free from filth, and disease-germs, and vermin and unpleasant odor. Cows are healthier and give much more and much better milk.

Easy To Install

BT Steel Equipment is very simple to erect in the barn. The Stalls come ready to set up, from our factory, and can be put up in a few moments, by tightening the three large bolts on each stall. You can get the whole job ready for the cement in a single afternoon, with only a boy to help you. We send blue-print plans to show widths for cattle-stands, gutters, passages, etc., so you can build or remodel your whole stable yourself.

Before you build or remodel your barn this year, get our Free Book, No. 21, that tells all about BT Galvanized Steel Equipment. See the fine views of modern barns, showing the steel equipment in actual use, investigate every fact for yourself, and learn about every money-saving advantage.

Barn Plan Service Free

Let Beatty Bros., help you plan your barn this spring. We'll show you how to build a much better barn than your neighbors have, at less cost, how to lay out the stable to be handier for choring and to hold more stock, how to light and ventilate it better, and how to frame it more economically. Also, we'll send our valuable book, "How to Build a Dairy Barn."

We'll make careful plans for you, and answer any questions by personal letter. Write us, whether you are building or remodeling, or only making a few changes or additions, for we believe our barn plan service will save you a good many dollars.

Send the coupon to-day, to

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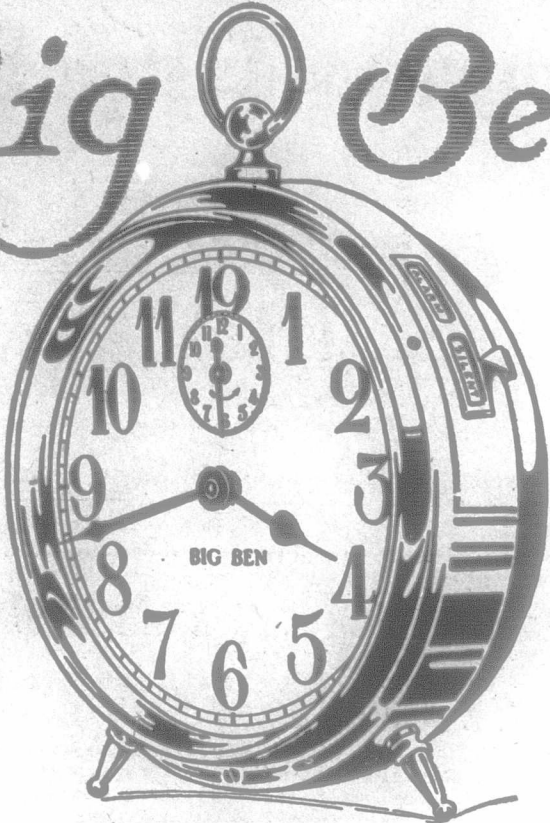
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BEATTY BROS., Limited, 1281 Hill Street, Fergus, Ontario Send me, free, your 64-page book No. 21, about Galvanized Steel Equipment, also the book "How to Build a Dairy Barn." I expect to build or remodel my barn in 1914, about

Shall we make up-to-date plans for you?.....If so, about what size will your barn be?.....How many cows will you keep?.....Any horses?.....

Box Stalls for cows?.....Box Stalls for horses?..... your Name.....P. O.....Prov.....

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7,000 Canadian dealers say that Big Ben does more efficient work for less pay than any other clock built. He's a regular glutton for good work.

In return for one little drop of oil Big Ben will work for you a full year. From "Boots on" to Lights out"—365 times—he'll guarantee to tell you the time o'day with on-the-dot accuracy. He has made the same guarantee over 3,000,000 times and made good every time. He'll make good for you. More than \$8,000,000 has passed over good dealers' counters for Big Ben and his brothers.

A Big Ben battalion, over 3,000 strong, leaves La Salle, Illinois every day. Every one of them feels proud of his triple nickel-plated coat of implement steel; his dominating seven-inch height; his large, bold figures and hands, and his big, easy-to-wind keys. No other clock can match their looks and ability to serve.

Things move with a will when timed with Big Ben. He'll wake you gradually by ringing every other half-minute for ten minutes or rout you out in a hurry with one long musical ring. Suit yourself how he does it. You can shut him off short in the middle of his call, if you wish.

He is built in a live town for live wires. And his best work has been on the farm. Before-breakfast chores are started right on time when Big Ben time is set. He never oversleeps. He runs on time, rings on time and stays on time.

If your dealer doesn't sell Big Ben, send a money order for \$3.00 to his makers—Waltham, La Salle, Illinois. He will come to your house by express duty charges prepaid.

**Questions and Answers.
Miscellaneous.**

Cabbage Sown in Drills.

Can you, or any of your readers, inform me if cabbage in the main or late crop, can be grown successfully, sown in rows with a garden drill in the field where they are to grow, and thinned out and cultivated and hoed similar to a root crop? The expense of transplanting in a large area could be obviated by this method if it were successful. Also, what time should they be sown, and how much seed per acre? R. R.

Ans.—If you have rich and fertile soil, you may be able to successfully grow a crop of late cabbage in the way you suggest. They should be sown early, about the time you sow mangels, and when they are all up some distance they may be thinned out to about two to three feet apart in the rows, the rows being three feet apart. This system has given success in the past, and there is no reason why it should not do so in your case. In the instance upon which we base this reply, the seed was sown with a turnip drill, at the rate of about two pounds per acre. You will have to try out your machine and decide upon the distance, but this quantity is about right. Some of our readers may also have had some experience in this direction which they would be willing to give our readers in print.

Silos and Blowers.

1. Are two small silos better than one large one?
2. Will silage keep as good in the small one?
3. Are they ever set in front of the barn? I should think they would be handier there, especially for summer use, and it would not be so much exposed to storm and wind.
4. Which would require the most power, carrier or blower?
5. Can a farmer put a blower on his cutting-box himself that will work all right?
6. Will the carriers work on any large box all right? I have a horse power to run it.
7. Which do you prefer, carrier or blower, to do my own work on a small farm? R. J. R.

Ans.—1. This will depend upon the amount of stock you keep, or if you intend to feed from the silo in summer, in which case a summer silo would be advisable. If you just have an ordinary farm, a silo 35 x 14 will answer your purpose very well.

2. Silage will keep good in a small silo provided you have the height. A silo which is not high will not give you good silage. We have in mind several silos erected last summer, from which the silage is coming out in poor condition, owing to the lack of weight from the surface layers of the silage.

3. They are usually set where they will be most convenient to the mixing-room, or where the silage may be thrown nearest to where it will be fed. It does not matter materially whether they are set at the front or at the back of the barn. If it would be more convenient at the front, there is no reason why you should not place it there.

4. Blowers require much more power than carriers.

5. If you are somewhat of a mechanic, no doubt you could attach a blower to your cutting-box, but we fear that it would not give you the proper satisfaction.

6. The fans may be removed and the carriers connected up with a large cutting-box.

7. This is a question which you are in a better position to answer than we are. A silo filled with a carrier by your own horse power, can be filled on two or three different occasions, allowing the silage to settle, and you will be able to get more in your silo. It will take you longer, of course, to fill with the carriers and the small cutting-box than with a large blower, but there is that one advantage in favor of the carriers, that you can fill it at your own convenience and have more material in your silo than filling all at one time. If you are so situated that you can operate in the last-mentioned way, no doubt it will be to your advantage in the end.

**ORDER YOUR
POTASH
AT ONCE**

ORDER your POTASH at once. The Potassic and Phosphatic Fertilizers should be applied to the soil as soon as the land is workable, so that the crop can get the full benefit of these materials in the first season.

Many disappointments with fertilizers are due to the fact that they have been applied too late for the crop to get full benefit from them, although ensuing crops always benefit. Remember these fertilizers are not used up in the first season but are effective for several seasons.

Nitrate of Soda should generally be applied as a top dressing at planting time. Slower acting Nitrogenous fertilizers can be applied earlier with the other materials.

**Muriate of Potash
and
Sulphate of Potash**

can be obtained from the leading fertilizer dealers and seedsmen.

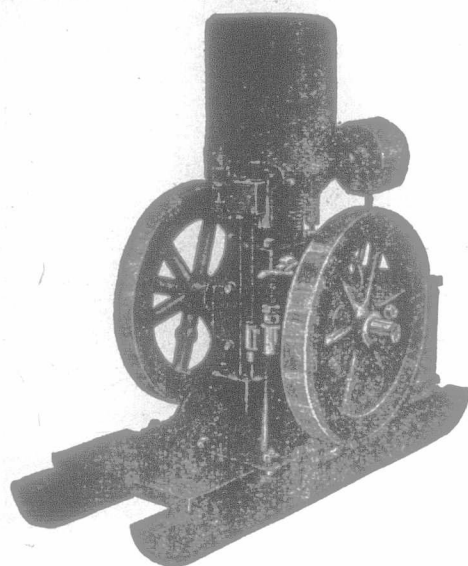
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- "Artificial Fertilizers: Their Nature and Use."
- "Fertilizing Grain and Grasses."
- "Fertilizing Orchard and Garden"
- "The Potato Crop in Canada."
- "Fertilizing Hoed Crops."
- "Farmer's Companion," etc.

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All the advantages of both water-cooled and air-cooled.

Vertical non-freeze sizes, 1½, 2½, 3½ and 4½ h.-p.

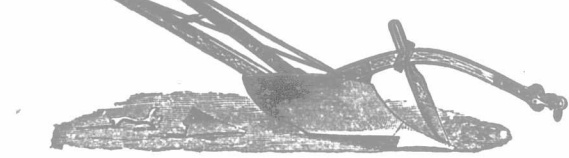
Horizontal single cylinder and double opposed, 10 to 50 h.-p., and all kinds of outfits.

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100 Standard Walking Plows

Suitable for all soils in Eastern Canada and British Columbia. No. 33, No. 30, No. 21, No. 8, No. 7, No. 5, No. 4, No. 2. The famous "Essex Centre" line to be sold at factory price



\$10 each

Send immediately if you are to be a lucky one. Your money back if not entirely satisfactory. State kind of soil your farm is, so that we may fill the order to suit the land.

Wheels extra, 75c. each.

Skimmers extra, 75c. each.

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That's what my father said to me when I was a boy—and that's what I'm doing when I send you my Belle City hatching outfit. 276,000 users will tell you so. I am giving Jim Roban, Pres. you more, when you compare my

8-Times World's Champion BELLE CITY

with any other incubator. Belle City has won Eight World's Championships and thousands have made 100 per cent perfect hatchings. Send for my New Book, "Hatching Facts." It tells of big money making successes. My low price will surprise you. Write today.

Jim Roban, Pres., Belle City Incubator Co., Box 197 Racine, Wis.

**J-M ASBESTOS
ROOFING**

Made of Asbestos and Trinidad Lake Asphalt—all mineral. Contains nothing to dehydrate. Never needs coating, gravel or other protection. Cheapest-per-year roofing. Gives perfect fire protection. Write for Book No. 3274

The Canadian H. W. JOHN-MANVILLE CO., LTD.
Toronto, Ont.

Learn Shorthand and Typewriting

We teach you at home in spare time and fit you fully for an office position. The demand for good stenographers exceeds the supply. Write for information.

Canadian Correspondence College, Ltd.,
Dept. E, Toronto, Canada.

Strawberries and RASPBERRIES reach their highest development here on the shore of Lake Erie. Our Free Catalog describes 50 leading kinds, with cultural directions, etc. Be sure and write for it.

THE LAKE VIEW FRUIT FARM
H. L. McConnell & Son, Crossland, Ont.

A Bargain on
CLYDESDALE STALLION
for quick sale. Terms and particulars address
J. Dunn, 94 Dovercourt Road, Toronto, Ont.

Questions and Answers. Miscellaneous.

Speed for Saw and Wheel.

1. What is the maximum speed at which it would be safe to drive a 30-inch buzz-saw?

2. What would be the maximum speed for a six- or eight-inch emery wheel?

ENQUIRER.

Ans.—1. The average speed at which a 30-inch buzz-saw should run is 1,200 revolutions per minute. This, of course, allows a considerable margin of safety in case the speed should unavoidably run up.

2. For a six-inch emery wheel, it is considered safe to drive it at 3,200 revolutions per minute, and an eight-inch wheel, 2,400. W. H. D.

Testing Milk and Cream.

I bought a Babcock tester for milk and cream a short time ago, but have not been able to get a satisfactory cream test with it. Should the brass pockets be filled with hot water the same as the directions given for milk? What color should the fat be when it is ready to read?

A. D. M.

Ans.—We never heard of filling the brass pockets with hot water for either milk or cream testing. Is your acid the right strength, and do you use the proper quantities and time for testing? You are likely getting burnt readings. The fat should show a clear, light-yellowish color on top.

A Refrigerator.

Tell me, through your paper, how to make a homemade refrigerator, and what material is required.

R. S. B.

Ans.—We have no complete directions for building of homemade refrigerators, as different conditions demand different sizes. We give herewith a few of the principles on which refrigerators are built, and from which you may be able to design something suitable. First, ice must be in the upper part as cool air is heavy and descends; second, water formed by melting ice must be run off to some receptacle in lower part or out altogether; third, inner walls, including cool chamber, should be of some kind of sheet metal, a good conductor; fourth, outer walls, between which there should be a space for circulation of cool air, should be thick with air spaces, and be of wood or other conducting material.

An Insect.

I am sending, under separate cover, a beetle that I found on the snow, and had been on either a poplar or a cedar tree. I would like to know its name, and if it is injurious to trees. When I found it, during a spell of frosty weather, it was hard, but after being in the house for a short time, it became soft, and though it is more than two weeks since I found it, it is still alive.

F. W. F.

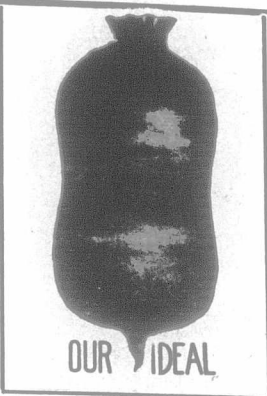
Ans.—The insect which is in the pupal stage, belongs to the order Cicadidae. It is quite probable that it is the pupa of the common Dog Day Harvest fly, whose buzzing sound is familiar to all during the hot days of summer. The larvae live by sucking the juice of roots of trees and other vegetation. The adult feeds on foliage, and is not, as a general thing, numerous enough to do very much damage.

About Interest.

A gets money from B on A's pigs as soon as ready. A gave B the pigs inside of six months. Now B is wanting interest for that money. He is charging six per cent. the full time A had the money. Can B charge more, A not paying the interest to B yet? How much interest per cent. can B charge for the money?

J. B.

Ans.—Was there nothing stated about interest at the time the loan was made? We think there must have been some misunderstanding. If B was to have interest, surely the rate was mentioned. On such a loan, six per cent. per annum was not too high a rate at present, and it is likely B could collect it unless it was stipulated that no interest was to be paid. If he can collect interest, he may also collect further interest on the amount of interest due him until paid. You had better straighten the matter out between yourselves.



OUR IDEAL

Our home-grown Yellow Mangel, "Our Ideal," leads them all. "Obtained 1,100 bushels from one acre," so writes us a Newmarket, Ont., farmer. This new mangel is easily harvested and a keeper of highest feeding value. Give it a trial. 45c. per lb. postpaid. Sow 5 to 6 lbs. to an acre.

ASK FOR OUR CATALOGUE AND SECURE OUR

Home-grown and Tested Seeds

Remember: BEST SEEDS—BEST CROPS

SPECIAL OFFER! Order Our Famous Special Collections:

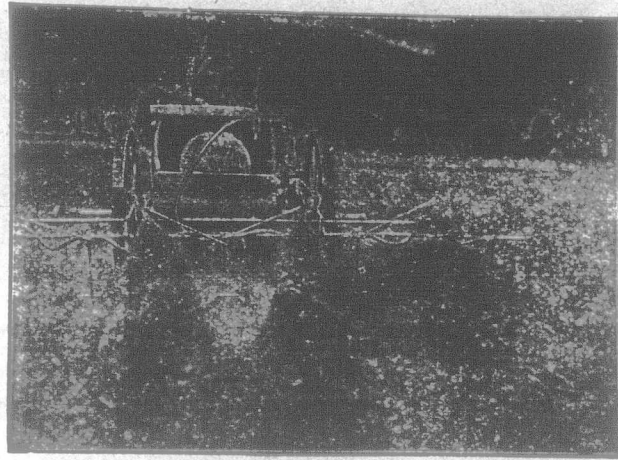
Farm Garden Collection D.—31 selected varieties, \$1 postpaid. One packet each of Beans (wax), Beans (green podded), Corn (early sugar), Peas (early garden), Beets (early round), Cabbage (early), Carrot (garden), Cauliflower, Cucumber, Lettuce (early head), Lettuce (curled), Onion (large yellow), Musk Melon (early), Parsnip, Parsley (curled), Pumpkin (sugar), Radish (French Breakfast), Radish (White Icicle), Tomato (early), Turnip (table variety), Marjoram, Sage, Savory, Spinach, Thyme, Mangel ("Our Ideal") and five selected Flower Seeds including Aster.

Trial Collection E.—17 selected varieties, 50c. postpaid.

Children's Collection F.—13 selected varieties 25c. postpaid.

Ontario Seed Company Successors, Waterloo, Ontario

Our Hurst Sprayers are the best. Ask for Catalogue



Fight Pests, Insects and Scale With the Greatest Weapon Made---

SPRAMOTOR

This man got tired of having his potatoes and row crops ruined year after year. Now he gets after bugs, and other parasites, with a Spramotor.

See how thoroughly he drenches the plants with the beneficial spray. Look closely at the picture, and you will see, that while the overhead nozzles spray directly down on the plants, separate nozzles between the rows, are forcing the mixture under the leaves and through the stems, so that no single piece of foliage is missed. That's the thorough Spramotor way, and the only way to spray, if you are going to do it properly.

Twenty years' experience in making spraying machines, has taught us the important facts. We have seen men improve their yield of potatoes, from hardly any, to 400 bushels an acre, with a Spramotor.

The outfit shown above, sprays an acre of row crop in fifteen minutes—the horse furnishing all the power and giving 200 lbs. pressure at the nozzles. Over twenty different patents cover the valuable improvements in Spramotors, that no other machine can have.

NOTE:— Write us about your spraying needs. Tell us what you have, and we will forward full information about a Spramotor, that will exactly fill the bill. We make them in many styles, and at prices ranging from \$6 to \$350. You will also receive FREE by return mail, a copy of our authoritative treatise on Crop Diseases. Get in touch with us to-day.

B. H. HEARD SPRAMOTOR

1736 KING STREET LONDON, CANADA

Unreserved Auction Sale of High-class Stock, Implements, Produce, Etc.

I will sell for ROBERT McCORMICK & SONS, Lot 27, Con. 6, South Dumfries, four miles north of Paris on the Galt road, and three miles west of Glenmorris, on

Thursday, March 25th, 1914

The following: Six extra good farm mares and geldings, a very choice lot. Fourteen head of pure-bred Shorthorns, a very superior herd. Fifty high-bred Durham grades. Fifty Tamworth and Yorkshire sows and shoats. Seventy-five pure-bred White Leghorns, all under one year; also Implements, Dairy Utensils and Farm Produce.

Usual terms. Sales at 9.30 a.m. Banquet at noon.

FOR PARTICULARS, WRITE TO

R. McCORMICK & SONS, Props., Paris, Ontario

SCOTT DAVIDSON, Auctioneer, Lock Box 255, Paris, Ont.

Fit to Fire the Farm Engine

Costs no more—lasts longer

When you want a battery for any purpose—especially for your engine, auto or tractor—say Columbia and get the time-tried product of the largest battery makers in the world. Quarter century repute for batteries built for business. Columbias are sold all over the world. Every cell signed by the makers.

Made in Canada by Canadian National Carbon Co., Limited, Toronto, Ont. Fishstock spring clip Blinding Posts at no extra charge.



Registered Seed Potatoes

My Registered Green Mts. yielded last season over 600 bushels per acre

Write me for price list of other varieties.

C. Fred Fawcett, Upper Sackville, N.B.

BARLEY & OATS

We have another fine supply of 21 barley, samples excellent; also a supply of improved Siberian oats. Our original supply was grown from registered seed. Present supply was specially grown for seed purposes and is clean, barley, ninety cents; oats, fifty-five. Bags extra.

JOHN ELDER & SONS, Hensall, Ont.

FOR SALE—SEED CORN

Many varieties; also Feed Corn. Apply to Edward Tellier, St. Joachim, Ontario

CLOVER SEED—Red Clover, Alsike and Timothy, high government tested. Write for samples and prices.

SHIPMAN & DAWSON Ontario

SEED CORN FOR SALE

High germination test. White Cap Yellow Dent. Grown on our own farm. Write TISDELLE BROS., Tilbury, Essex Co., Ont.

None-Such WHITE CAP YELLOW DENT. Matures early. Carefully selected and dried. Reduction on farmer's club orders. R. A. JACKSON, COTTAM, ONTARIO.

Strawberry Plants—Most profitable varieties. Grown under ideal conditions. 125 for \$1.00 post paid

SILVERWOOD FRUIT FARM

W. J. Galbraith, Phelepston, Ont.

Some Spuds—"Buckskin" will deliver the goods where standards fail; quality good; try this Early Ohio white strain; vigorous grower; highest quality; best early potato. Price, \$1.75 per bag F.O.B. St. Thomas. P. N. HAIGHT, Box 124, St. Thomas, Ont.

Please mention "The Farmer's Advocate."

MOODY DISC DRILL

YOU pay high prices to secure good seed grain, and take great care to prepare your soil, etc. Have you considered that failure is possible unless you have a reliable SEEDER? Our 13 Disc Drill is constructed to give best results. It will sow evenly and at uniform depth in any ground, whether soft stony or hard.

LOOK AT THE CONSTRUCTION

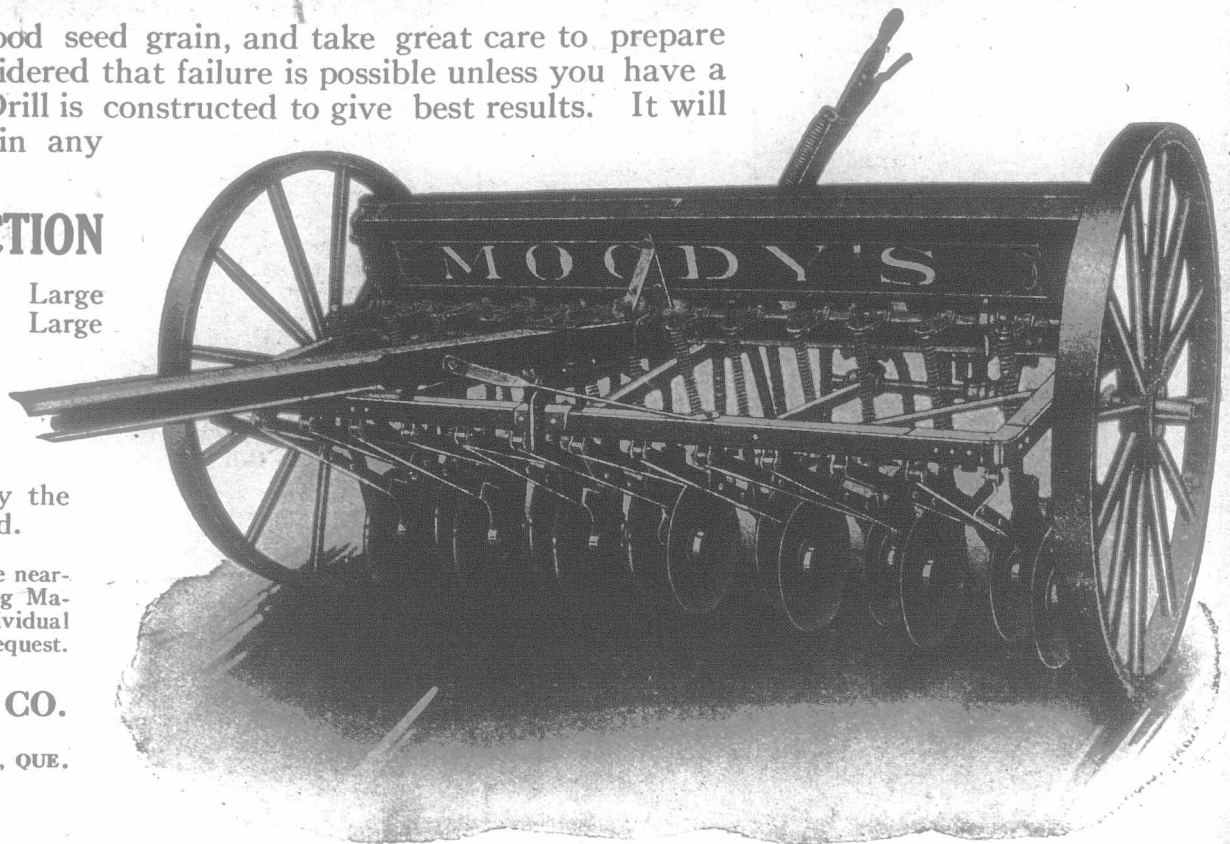
It is strongly built, yet light draft. Large tired wheels will go over any soil easily. Large capacity grain box. Positive feed, that handles all grains, and is easy to regulate. Grass seed box well constructed, and sows the seed perfectly.

Will pay the cost in a few seasons by the grain it saves and the record crop produced.

Get Catalogue from our local agents, or write nearest branch for particulars and Catalogue of Spring Machines. We manufacture a full line, especially individual threshers for the farmers' own use. Particulars on request.

THE MATTHEW MOODY & SONS CO.
TERREBONNE, QUEBEC
MONTREAL, QUE. QUEBEC, QUE. BLAISVILLE, QUE.

E. G. LARWILL, 89 Botheller, Ottawa, Ont.
J. W. MCKEE, Sherbrooke, Que



FORTY YEARS REPUTATION

is something that is of incalculable value.

It is plain that we have to be just as careful of the quality of our goods now, to keep up that reputation, as we have been in building it.

And that is your surest guarantee of the uniform excellence of—

GUNNS SHUR CROP FERTILIZER

We have an interesting book about fertilizers—it is yours for the asking.

Gunns Limited, West Toronto



R.M.S.P.

FORTNIGHTLY SAILINGS
— BY —
TWIN-SCREW
MAIL STEAMERS
FROM
St. John (N.B.)
AND
Halifax (N.S.)
SPECIAL FACILITIES
FOR TOURISTS

For Illustrated Folders, Rates, etc., apply to the Agents of The Royal Mail Steam Packet Company; or in HALIFAX (N.S.) to PICKFORD & BLACK, Ltd.

Plow Sale

We have quit making plows. From last year's stock we have a number of Waterloo Twin Gang Steel Plows; the No. 13 General Purpose Walking Plows; the No. 21 General Purpose Walking Plows. They will be sold at a sacrifice. Get your order in now.

The Exeter Mfg. Company Ltd., Exeter, Ont

STALLIONS WANTED—any age or breed in exchange for a 96 acre farm with large barn; water piped into house and barn from spring.
Price \$3,000. Address Box H. M.,
Farmer's Advocate, London, Ont.

Please mention "The Farmer's Advocate."

Gossip.

When you are building that new wire fence, be sure and staple a ground wire on every fifth or sixth post, putting it on the face side of the post so as the wires of the fence come into direct contact with it. It will cost but a trifle, and may save some valuable horses or cattle from being killed by lightning. This is but a trifle. Don't let prejudice prevent you from doing it.—R. H. H.

Elsewhere in this issue there appears an advertisement of P. S. Riddell, R. R. No. 3, Granton, Ont., who is advertising an extensive auction sale. The time of this sale has been changed from March 25th to March 26th, owing to another sale near by falling on the former date. Readers will please remember that it is March 26th. The offering includes a very choice herd of Holsteins, at the head of which is Prince Calamity Schuiling, one of the richest-bred bulls of the breed. The cows have never been officially tested, but have records up to 12,500 pounds for three-year-olds, and 9,500 for two-year-olds. Nine head of grade Shorthorns, ready for the butcher, are in the sale, ten horses and colts, heavy draft, Hackney and trotting-bred stock. Look up the advertisement in another column, and plan to attend this sale. Write Mr. Riddell, R. R. No. 3, Granton, Ont., for further particulars.

LAST CALL FOR BALES BROS.' HOLSTEIN SALE.

At this late date, everyone interested will have written for and received a catalogue, and will be conversant with the splendid breeding and qualities of the Holsteins to be sold at the big dispersion sale of Bales Bros., at Lansing, Ont., on Tuesday, March 21st. In order to reach the farm, parties from Toronto will take a Yonge-street car to the C. P. R. crossing, then change to a Metropolitan car and get off at stop 33, which is at the farm gate. Those coming from the north will get off at the same stop. The sale will commence at 12.30, sharp. This will be one of the last Holstein sales of the season. This popular breed of dairy cattle are steadily increasing in value, and everything indicates that their value will continue to increase, and not for many years to come will they be bought as cheaply as now. This fact, coupled with the high-class merit of the cattle offered at this sale, should be of particular interest to farmers thinking of increasing their herd of this breed. Be on hand early, as often the biggest bargains are among the first sold.

Important Auction Sale

EXTRA HIGH-CLASS

Holstein-Friesian Cattle THURSDAY, APRIL 9th, 1914

60 head including my two herd sires King Isabella Walker No. 8257, a bull whose three nearest officially tested dams, a sister of his dam and two sisters of his sire, average 30.34 and his dam has a semi-official yearly record of over 22,000 pounds of milk and 990 pounds butter.

The junior sire King McKinley Lyons No. 17729 has 7 nearest dams in the first four generations averaging 29.60 butter, his maternal gr. dam is the dam of King Segis, the greatest nine-year-old sire. There are twenty daughters of the senior sire in this sale, 17 mature females with records from 16 to 24 lbs., three-year-olds from 17 to 22.32 lbs., two-year-olds from 13 to 20 lbs. females are sired by such sires as King Segis, King Fayne Segis, Sir Aaggie Beets Segis, Prince Hengerveld of the Pontiacs.

Every animal will be sold without reserve as the owner has no way of keeping the herd over another Season owing to lack of pasture.

SALE WILL COMMENCE AT 1 p.m.

Col. B. V. Kelly, Auctioneer
Syracuse, N. Y.

P. J. Salley, Proprietor
Lachine Rapids, Que.

HOME-MIX YOUR FERTILIZER

BETTER FERTILIZER--LESS MONEY--NO USELESS FILLER

If you can mix Cement you can mix Fertilizer

1100 Bushels Potatoes per acre yearly, Guernsey, Channel Islands
600 Bushels, C. Fred. Fawcett, Upper Sackville, 1913
350 Bushels, State Farm, Massachusetts, 1913

ON HOME-MIXED FERTILIZER

Write for FREE Booklets, Formulas, Full Directions

NITRATE OF SODA, POTASH SALTS, ACID PHOSPHATES,
BASIC SLAG, ANIMAL AMMONIATES

NITRATE AGENCIES CO., BAY AND RICHMOND STS.,
TORONTO, CANADA

THE PAPEC



Papec Ensilage Cutters

Cut silage perfectly, and at a very low cost of operation. Papec knives cut smoothly and swiftly. They make a fine, uniform silage that is very palatable and nutritious. The combined throwing and blowing force that lifts the silage is generated from one fifth less power than is required by any other blower doing the same work.

Mechanical perfection and high quality of material mean long life, no loss of power and low cost of operation.

Our new illustrated catalog gives facts showing how "The Wonderful Papec" will save time and money at cutting time. Send for copy today.

GILSON MFG. CO., Ltd.
1709 York Street
Guelph, Ontario

363.1 Bushels Potatoes

From One Acre of Massachusetts Land

A. Webster Butler of Brockton, Mass., won the first southern zone prize offered by the Bowker Fertilizer Company for the largest yield of best quality potatoes grown exclusively on Stockbridge Potato Manure. His acre was a "rocky loam" producing about 2 1-2 tons of hay per acre in 1912 on manure. Rows were 36 in. apart and Green Mountains cut to two eyes were planted 14 inches apart. The piece was cultivated five times. The acre was sprayed with Pyrox.

STOCKBRIDGE POTATO MANURE

was applied 2100 lbs. broadcast and 700 lbs. in the drill. No other fertilizer or dressing of any kind was used. The entire crop weighed 21,783 lbs. or 363.1 bushels. His total score including quality points was 589 points, the highest in the southern zone.

Other Winners secured yields ranging from 311.1 bushels to 502.6 bushels in the northern zone, (Me., N. H., Vt.,) and from 183.8 bushels to 363.1 bushels in the southern zone, (Mass., R. I., Conn.)

Send us your name for complete and instructive statement concerning the results of the contest and how these great yields of potatoes were obtained. No other fertilizer than the Stockbridge Potato Manure was used.

BOWKER FERTILIZER COMPANY
43 Chatham St., Boston.
Also Baltimore, Buffalo, Philadelphia and New York.

Beautify and Protect Your Property

Peerless Ornamental Fencing accomplishes two great purposes. It beautifies your premises by giving them that symmetrical, pleasing, orderly appearance, and it protects them by furnishing rigid, effective resistance against marauding animals, etc.

Peerless Ornamental Fencing

is made of strong, stiff, galvanized wire that will not sag. In addition to galvanizing, every strand is given a coating of zinc enamel paint, thus forming the best possible insurance against rust. Peerless ornamental fence is made in several styles. It's easy to erect and holds its shape for years.

Send for free catalog. If interested, ask about our farm and poultry fencing. Agents nearly everywhere. Agents wanted in open territory.

Banwell Hoxie Wire Fence Co., Ltd.
Winnipeg, Man.—Hamilton, Ont.

"BAKER" No Friction Windmills

Mechanically correct NOW and always have been. Originators of the Hub and Stationary Spindle in Windmill Construction—the ONLY PROPER PLAN of carrying the weight of the wheel. Write for more information.

THE HELLER-ALLER CO.
Also manufacturers of Iron Pumps for every service, Galvanized Steel, Pine and Cypress Tanks
Windsor, Ont.

SALEM SHORTHORNS

in either sex.

J. A. WATT, Elora, G. T. R., C. P. R.
Telephone and Telegraph.

Dehorn Your Cattle.

We are in receipt of the following from the Union Stock-yards of Toronto: "By a resolution of the Toronto Live-stock Exchange, passed over a year ago, a regulation will come into effect on the first of April next, docking all cattle wearing horns \$2 per head. This, in a way, sounds unreasonable, but when it is considered that the slaughterers of cattle have to stand annually, losses from a quarter to half a million dollars on account of concealed bruises, the regulation does not seem to be such a hardship. However, a movement has been on foot to possibly postpone the date this regulation is to come into effect, and several prominent buyers interviewed on this subject, express themselves as not being desirous of working what might be considered a hardship on farmers and drovers by this regulation. At the same time they point out the enormous losses which their houses have to stand, which is traceable directly to horned cattle. However, there seems to be a fair opinion that if some other method can be employed to prevent these bruises, that they would be agreeable to postpone this regulation. One idea suggested, and it seems good to us, is that the farmer or drover procure a fine-tooth saw—a small meat or mitre saw is good, and costs very little—and cut off the sharp tips on the horns before they leave the farm, and at least before they are mixed with strange cattle.

"This tipping is absolutely painless, easily done, and prevents the beast from inflicting pain upon his fellows. Only about one inch or an inch and a half of the hard tip of the horn is sawed off, care being taken not to cut into the quick, does not set the cattle back. It is clearly evident that if the Humane Society would see some of the bruised carcasses and torn hides on the cattle, they would in themselves enforce the regulation throughout our fair Province to require handlers of live stock to at least fix the animals in such a way that they could not damage each other."

Gossip.

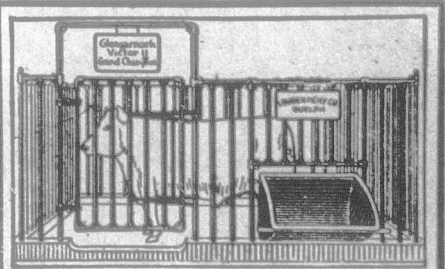
At the end of the fourth month in the third International Egg-laying Contest, conducted by the Department of Agriculture of the Province of British Columbia, a New Zealand pen of White Leghorns was leading with 419 eggs. Of the heavy breeds, a pen of White Wyandottes from England, led with 379 eggs.

At an auction sale of Aberdeen-Angus cattle at Newton, Iowa, February 11th, from the herds of W. J. Miller, Newton, and J. H. Hildreth, Saskatchewan, Canada, the Canadian offering of 27 head, made an average of \$130.37, the bulls and females averaging about the same. The Miller consignment averaged \$182, the seven bulls averaging \$258.57, owing to Mr. Miller including his show bull, Rose Gay 6th, which went to J. W. McClung, of Nebraska, for \$1,000. The highest price realized for a female was \$300, for the six-year-old cow, Erica 4th.

ENGLISH SHIRE HORSE SHOW.

The thirty-fifth London Show of the Shire Horse Society, was held the last week in February of this year, the catalogue numbering 719 entries, being made up of 369 stallions, 312 mares, and 38 geldings. The Society's gold challenge cup for the best stallion in the show went to Sir Walpole Greenwell's three-year-old, Champion's Goalkeeper, which was the sensation of last year through making the record price of 4,100 guineas (approximately \$20,950). Reserve was F. E. Muntz's ten-year-old, Danesfield Stonewall. The champion mare was W. & H. Whitley's Lorna Doone, and the reserve, J. G. Williams' three-year-old, Snelston Lady.

At the auction sale of Shires, the same week and place, there was a capital demand for the three-year-old stallions, and for all the best of the older horses, the former with a range of price from 850 guineas down to 50 guineas, and an average for 34 of £218 16s. The highest price for a three-year-old stallion was 850 guineas (about \$4,343), for L. Solomons' Norbury Coronation, by Norbury Minstrel.



LOUDEN Sanitary Steel Pens

—for—
Bulls, Cows, Calves and Hogs

Comfortable, Permanent, Secure

THE best animals in the country are stabled in LOUDEN pens, because the owners appreciate the convenience and protection secured, and the animals the comfort and freedom so necessary, when they are continually shut up.

Louden pens are constructed of the best tubular steel, and dust and germ proof malleable couplings, finished in aluminum. For quality, strength and service they lead.

Write for catalogue and for Free Barn Plans if you are building or re-modelling farm buildings.

The LOUDEN MACHINERY CO.
Dept. 61 GUELPH, Ont.

Don't Take Chances on a Poor Grindstone

Don't spoil your knives, axes, hoes or cutter-bar blades on some soft-spotted, lopsided, cheap stone. That's not economy! Here's a good stone—the CLEVELAND "STERLING." Guaranteed to wear evenly, grind quickly and put a keen edge on. Made of the only Beres rock, exactly the right grit for farm use. Ball-bearing, well-made steel frame. Works like a bicycle—and just as easy. Every stone personally selected by our expert judges.

CLEVELAND Grindstones

We are the biggest producers of grindstones in the world. We own and operate the only Beres quarry, the standard by which all grindstones are compared. We have 17 other quarries. We've made grindstones for 60 years. 1 out of every 18 agricultural implement makers use our stones in their own shops. They know what's best. We treat our customers fairly. Money back if anything goes wrong. Write for booklet, "The Grit that Grinds," and name of dealer who will supply you. Insist on this trademark.

THE CLEVELAND-STONE CO.
1127 LEADER NEWS BLDG., CLEVELAND, OHIO

HICKMAN & SCRUBY

Court Lodge, Egerton, Kent, England
Exporters of Pedigree Live Stock of all descriptions.

We are the only firm in Great Britain who make this their sole business, and therefore offer advantages not obtained elsewhere. When our Mr. A. J. Hickman started this business seven years ago, he did not know a single foreign breeder. This year we have exported more stock to order than any other firm in Great Britain. This is a fact which talks. The frequency with which we buy stock from English breeders means that we can do business with them on more favourable terms than can be done by anyone else. No one should import draft horses, beef or dairy strains of cattle, or mutton breeds of sheep, without first getting all particulars from us. Highest references on application.

Notice to Importers

C. CHABOUDEZ & SON

205 rue La Fayette, PARIS, FRANCE

If you want to buy Percheron Horses and Mares, I will save you time and money and all trouble with papers and shipment. Will meet importers at any landing port. I am acquainted with all breeders and farmers. 30 years experience. Best reference. Correspondence solicited.

NOTICE TO HORSE IMPORTERS

GERALD POWELL,

Comin. on Agent and Interpreter,
Nogent Le Rotrou, France,

Will meet Importers at any port in France or Belgium and assist them to buy Percherons, Belgians, French Coach horses. All information about shipping, banking, and pedigrees. Many years experience; best references; Correspondence solicited. P.S.—Nogent is in the heart of the Perche horse district.

DR. BELL'S Veterinary medical Wonder. 10,000 \$1.00 bottles FREE to horsemen who will give The Wonder a fair trial. Guaranteed to cure inflammation, Colic, Coughs, Colds, Distemper Fevers, etc. Agents wanted. **DR. BELL, V.S., Kingston Ont.**

SAVE-THE-HORSE



THE TIME IS NOW

All the winter long, the troubled owner of a lame horse reads our advertisements. Then, day after day slips away, while he talks, laments, listens, takes advice and hesitating—**FAILS TO ACT**—till the Springtime is on him and his horse is not yet able to work. Meantime the thrifty, prosperous, resolute man, reads, considers the evidence carefully—**Decides Promptly**—and his horse is working in, say, ten days to two weeks. That's exactly what happens every winter.

•We Originated the treatment of horses by mail—Under Signed Contract to Return Money if Remedy Fails—and every minute of every day for Eighteen Years our advice and treatments have been on the way wherever mails go and horses are. Our charges are moderate. Spring work is near; Write.

•Our Latest Save-The-Horse BOOK is a Mind Boggler—Tells How to Test for Spavin—What to Do for a Lame Horse—Covers 66 Forms of Lameness—Illustrated. But write describing your case and we will send our BOOK—Sample Contract and Advice—ALL FREE—to (Horse Owners and Managers—Only.)

TROY CHEMICAL CO., 148 Van Horn Street, Toronto, Ont.

(Also Binghampton, N. Y.)

Druggists Everywhere Sell Save-the-Horse WITH CONTRACT or sent by us Express Prepaid

Heaves

AND HOW TO CURE

—A Standard treatment with years of success back of it to guarantee results in

Fleming's Tonic Heave Remedy

Use it on any case—No matter what else has been tried—and if three boxes fail to relieve, we will refund full amount paid. Further details in

Fleming's Vest Pocket Veterinary Adviser

Write us for a Free Copy of Best Ever Used.

Dear Sir:—Enclosed find \$1.00 for 1 package of Tonic Heave Remedy. I used a package last year and completely cured a case of Heaves of some 3 years standing.

H. B. BRIDGES, Lillooet, B. C.

Per Box \$1.00, 3 for \$2.50
FLEMING BROS., Chemists
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Horse and Cattle Breeders

ARTIFICIAL IMPREGNATORS

With which we guarantee you can get 2 to 6 mares in foal from each service of your stallion or jack; impregnate irregular-breeding and so-called barren mares and cows, and increase your profits from your breeding operations. Prices, 55c to \$5.00.

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BREEDERS SUPPLY CO., Dept. 3, Cleveland, Ohio, U.S.A.

Become More Proficient and Increase Your Profits

BITTER LICK MEDICATED Salt Brick

Great Conditioner & Worm Destroyer

Bitter Lick is a compressed salt brick, medicated with roots, herbs, etc., in such proportion as will keep horses in excellent condition and free from worms. Bitter Lick keeps the appetite keen; all horses like it; tones the digestion and prevents colic. It has no cheap filler and takes the place of worm and condition powders, etc., keeps horses healthy for only 1c a week.

Ask your dealer or write for booklet.
STEELE, BRIGGS SEED CO., Ltd., WILKINSON, MAN.
Wm. Cooper & Nephews, Toronto, Ont.

Clydesdales, Imp., Stallions & Fillies
Stallions, prize-winners of highest quality, character and breeding; Fillies prize-winners in foal, also stock bull, Crown Imperial 86997, a high class bull.
GOODFELLOW BROS.

R.R. No. 3, Bolton L.-D. 'Phone.
Please mention "The Farmer's Advocate."

Questions and Answers.

Miscellaneous.

Disinfectants.

1. What is the best disinfectant to use for spraying hen-houses, turkey-houses, hen-coops, and all outbuildings, to rid them of lice and all such vermin?

2. About how much muriatic acid should be put in the drinking water for young turkeys to prevent blackhead? How old should they be before you give any, and at what rate should it be increased?

3. Are books on diseases of poultry sent out from Guelph Experimental Farm for the asking?

R. S.

Ans.—1. A five-per-cent. solution of carbolic acid, or the same percentage of creolin, make good disinfectants for poultry-houses and all such buildings of which you speak. In the case of the hen-coops, etc., you would have more lasting effect from a mixture of white-wash, also containing a five-per-cent solution of the carbolic acid, which gives very good results. Burn sulphur in the hen-house after shutting up the doors and windows, the fumes, like those from the carbolic acid or creolin, find their way into the cracks and crevices where the vermin may be located.

2. One teaspoonful of muriatic acid to a quart of water is generally given to diseased fowls when it is administered. It is not an established fact, however, that muriatic acid is a remedy for black-head in turkeys. If you find it introduced into your flock, do not depend upon the muriatic acid alone to rid your flock of the disease, but destroy or isolate the affected ones at once. Would not advise giving muriatic acid in the water until some symptoms of the disease appeared.

3. Bulletins on diseases, such as tuberculosis, roup, etc., are sent out free of charge by the College at Guelph, or by the Department of Agriculture, Parliament Buildings, Toronto, Ont.

Switcher and Kicker.

I have a four-year-old mare that I broke in without any trouble, and she drove for a year all right. She seemed nervous, but gave no trouble. Now she has started kicking, seemingly from no cause whatever, and kicks hitched either single or double, and switches her tail. Will you please give different ways of curing her of this bad habit?

J. H.

Ans.—Switching and kicking often go together in a high-spirited, mean-tempered animal. It is not an easy matter to break these habits once they have developed in a young horse.

Correspondents to "The Farmer's Advocate" have, from time to time, recommended different means of curing horses of switching. A thick crupper is said to prevent switching in some animals. Wrap the ordinary leather crupper until it is four or five inches thick. Some advocate working the animal down in flesh on a small ration, but this is not always practicable, and with a good horse the owner does not care to see him get thin. A switching crupper may be made of iron, and covered with leather, but this has a tendency to provoke more kicking. An Oxford County horseman some time ago reported success with both switching and kicking by putting a straight bit in the animal's mouth, putting on a long and strong pair of reins, run through the rings on the back-band, and then he got behind the animal with the whip, which was used only to keep her going in the direction desired. The reins were then made to touch her tail, and as she switched or kicked the driver jerked the reins. This system was followed for several days until the animal was finally subdued. Of course, this treatment could only be recommended where the animal was a vicious switcher and kicker. It would be wise to always work your horse in a good, strong harness, with a kicking-strap attached. Anyone having ideas on preventing switching and kicking should, for the benefit of our readers, write them for "The Farmer's Advocate." As a general thing, quietness and kindness should be practiced.

No More Sore Shoulders



You want a sweat pad Mr. Farmer, that will not only give you superior wearing qualities, but one that will avoid for you all troubles caused by gall sores.

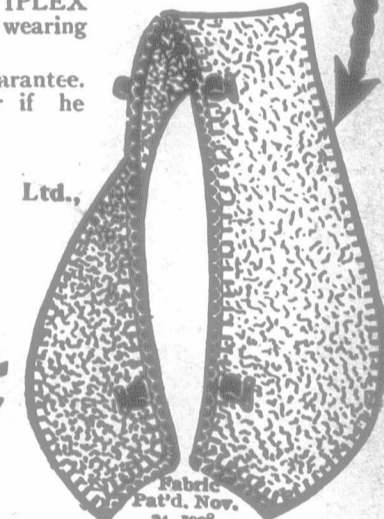
VENTIPLEX pads cure and prevent galls and sores by the very principle on which they are constructed, being made of a soft woollen fabric which is porous and absolutely non-poisonous (acting on perspiration as a blotter on ink) thus keeping the horse's shoulders dry and well at all times. VENTIPLEX pads can be cleaned when dirty and wearing qualities are unequalled.

Your absolute satisfaction is our guarantee. See "VENTIPLEX" at your dealers or if he can't supply you, write us.

Booklet free, address Dept. C.

Burlington - Windsor Blanket Co., Ltd., TORONTO. ONT.

TRADE MARK
Ventiplex
PADS



We will gladly give information regarding the use of

LIME

on your soil. The soil must be sweet to produce good crops. Where sorrel, horse tail, moss, etc., appear, the soil is sour, and you cannot expect the maximum yield of hay, cereals or fruit without correcting this acid condition. Lime Carbonate (Caledonia Marl) will do this. In many instances it has more than doubled the yield. We furnish blue litmus paper free with directions for testing your soil. Write us for further information. Agents wanted.

INTERNATIONAL AGRICULTURAL CORPORATION
Caledonia Marl Branch 827 Marine Bank Buildings, Buffalo N. Y.

Percheron, Clydesdale and Shire Stallions, Mares and Fillies Belgian, Hackney and French Coach Stallions

We have a better bunch of stallions and mares in our barns at present than ever before, and are in a position to sell cheaper than any other man in the business. We raise our own feed, do our own buying and selling. No commission agents to share profits with. We have nice, big, stylish blacks and greys, with right kind of bone and feet and good, straight, true action. Every stallion guaranteed a foal getter. Every mare a breeder. List of prizes won: Sherbrooke and Ottawa on 16 head, 15 firsts, 6 seconds, 4 thirds, 3 fourths and 6 championships. This speaks stronger than words as to the quality of my stock.

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Grenville is midway between Montreal and Ottawa C.P.R. and C.N.R. Three trains run daily from each of these cities.

Imp. Stallions CLYDESDALES Fillies Imp.

To the Clydesdale men of Canada we wish to say we have some of the best show material in this country. More size, more style, more quality, more character and better breeding than ever before, in both stallions and fillies.
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My fall importation of Clydesdale Stallions and Fillies are now in my stables; there never was a better bred lot imported, and their standard of character and quality is the highest and my prices the lowest.
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Imported CLYDESDALE Stallions

Yes, they are here, our 1914 importation, and if you want a big young stallion with the best legs, ankles, feet, action, breeding and character you ever saw at a price a poor man can pay, come and see our lot.
BARBER BROS. Gatineau Pt., Quebec.

Imp. CLYDESDALES and PERCHERONS Imp.

The Season is advancing, select your horse now. I can show you Clydesdale Stallions with size, quality, and breeding, second to none in Canada, for about half the usual price, and the same in Percherons.
T. J. Berry, Hensall, Ont., G.T.R., 'Phone.

Mount Victoria Clydes & Hackneys

When in want of a high-class Clydesdale stallion or filly, or something that has won and can win again in Hackney stallion or filly, visit our barns at Hudson Heights, Que.
T. B. MACAULAY, Proprietor
E. WATSON, Manager, Hudson Heights, Que.

STALLIONS & FILLIES CLYDESDALES PRIZE-WINNERS & CHAMPIONS

For this season's trade we have Clyde Stallions and Fillies that were up to championship honors in Scotland, and the same honors in Canada. Breeding characters, quality and action unsurpassed. Visit our barns if you want the best.
ROBERT NESS & SON HOWICK QUE.

TOPPERS IN CLYDESDALES AND PERCHERONS

I have just landed a big importation of Clydesdales and Percherons, if you want a big ton stallion with the best of quality, come and see me, I can show you the best lot of stallions you ever saw.
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If you want Stallions, Fillies or Foals of the above breeds, personally selected from A. and W. Montgomery's Clydesdale Stud and the Bramhope Shire Stud, Cheshire, and home-bred of the most fashionable strain. See and select from the large stock now offered. Prices and terms will please.
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against Death through Disease or Accident, Fire and Lightning. We issue the most liberal policies free from vexatious conditions and offer indisputable guarantee of solvency and square dealing.

We insure: Stallions, Track Horses, Draft Horses, In-Foal Mares, with or without insurance on the Foal; Cattle, Castration and Transit Risks, etc.

All kinds of Animals Insurance

Write us for further information and address of nearest agent.

THE GENERAL ANIMALS INSURANCE COMPANY OF CANADA

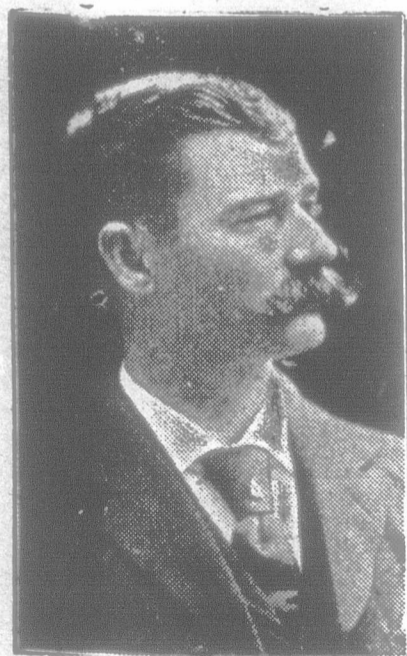
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MR. P. S. RIDDELL, R. R. No. 3, Granton, Ontario
HAS SOLD HIS FARM, AND ON
THURSDAY, MARCH 26th, 1914
WILL SELL WITHOUT ANY RESERVE, ALL HIS
STOCK AND IMPLEMENTS

Including a small but choice herd of Holsteins, numbering 10 females and 3 males, 5 mature cows, 2 heifers, rising 2 years, 3 heifer calves, 2 bull calves. The present herd bull, Prince Calamity Schuiling is sired by Logan Prince Schuiling, the champion Holstein bull, stud winner of the \$500 Special for the best animal of the breed at Canadian National (1911), his dam, Calamity Posch Wayne 3rd, was champion cow at the Dairy Test at Guelph, over all breeds, in Dec., 1913. These cows have never been officially tested, but have made private records of 12,500-lbs. for 3-year-olds and 9,500 for two-year-olds. The calves and yearlings are by Buffalo Houwtje Vale De Kol, whose dam made an official record of 16,820-lbs. milk and nearly 700 lbs. butter. Most of the cows are bred to present bull. Four high grade Holstein cows, fresh and to freshen. Nine head of grade shorthorns rising two years, ready for butcher, good ones. There are 10 horses and colts, including heavy draft, Hackney and trotting-bred stock. Usual stock of farm implements.

Terms—All sums of \$10 and under cash; over that amount 8 months' credit on furnishing approved joint notes, or 4% off for cash in lieu of notes. Three miles south-west of Granton and 8 miles west of St. Marys.

P. S. RIDDELL, R. R. No. 3, Granton. Lot No. 20, S. B., Biddulph. JOSEPH WHITE, Auctioneer, St. Marys, Ont.



WESTON, ONT. BRANDON, MAN
IMPORTING BARN

J. B. Hogate, Proprietor
IMPORTER OF

Percheron Stallions and Mares

Ages from one year old to six years old. Blacks and grays. Great, big, thick ones. Come and see what I can show you and get prices before you buy. That will be to your interest. And if I cannot sell you a better stallion or mare for less money than anyone in the business I do not want you to do business with me. Weston is three miles from Toronto, and can be reached by C.P.R. and G.T.R. Also by Dundas & Weston electric cars every twenty minutes. For further particulars, write

J. B. HOGATE
West Toronto Ontario

Percheron Stallions

The premier show herd of Canada. All ages, blacks and greys, weights from 1800 to 2150 lbs. Write for the greatest illustrated horse catalogue in Canada

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G.T.R and C.N.R. Railroads, Bell 'phone, No. 18.

SEE OUR CLYDESDALES

A choice lot of Stallions and Mares are in our stables at the present time. They are the big kind, with the best of quality and in the pink of condition. Write us for particulars, and we will be pleased to meet you at any of the Stations mentioned.

SMITH & RICHARDSON Columbus P. O.
Myrtle, C.P.R.; Brooklin, G.T.R.; Oshawa, C.N.R. Long-distance 'Phone.

Questions and Answers. Veterinary.

Wire Cut.

Last fall colt got a wire cut between knee and fetlock joint. There is an enlargement, and a scar upon which the hair has not grown.

H. O. W.

Ans.—The hair cannot be reproduced. The enlargement may be reduced some by rubbing well once daily with a liniment made of 4 drams each of iodine and iodide of potassium, and 4 ounces each of alcohol and glycerine.

V.

Enlargement on Legs.

1. Mare has a hard swelling towards the front of the inside of fetlock joint. She is not lame. The swelling decreases some on exercise, but reappears during rest.

2. Mare was kicked on cannon bone, and as a result there is a swelling as hard as bone. I have blistered both of these cases repeatedly without results.

D. C.

Ans.—1. Get a liniment made of 4 drams each of iodine and iodide of potassium, and 4 ounces each of alcohol and glycerine. Rub a little well into the enlargement once daily. Have patience, and persevere with the treatment, and you will succeed in reducing the enlargement considerably, but do not expect quick results.

2. It is almost impossible to remove this. The same treatment as for No. 1 may have some effect.

V.

Gossip.

The big importation of Percheron stallions and fillies made by Hodgkinson & Tisdale, of Beaverton, Ont., that created so much interest and made such a sweeping victory at the leading shows last fall because of their high-class quality of underpinning, draft character, and true, snappy action, when seen by a representative of this paper a few days ago, were many points advanced in growth and finish over their condition last fall when they won so many honors. Although many that were shown at Toronto in September last have been sold, not all the show-ring quality nor all the winners have gone, and among the two stallions rising four years, and the three stallions rising three years, are Toronto and London winners, with quality enough to suit the most exacting critics. Blacks and grays, big, thick horses, with clean, flat bone, and straight, trappy action. The firm are in a position to supply Percheron stallions and fillies and Clydesdale fillies that will be money-makers and business-bringers for their purchasers. Let them know your wants, and they will use you right.

Book Review.

BOY BOOK FARMIN'.

"The Farmer's Advocate" once suggested to a well-known author the possibilities of a story for farm boys which would give expression to the new spirit which, in so many quarters, is now awakening agriculture in Canada. The idea was not then worked out, but in "Joe, the Book Farmer," making good on the land, Garrard Harris has woven a tale that will be popular with youths who like going yarns of the Henty type. The scene is laid in the Southern States, where farming has been more "run down at the heels" than almost anywhere else. Through the co-operation of a town merchant, Joe; a 14-year-old boy, was put in charge of four acres of his shiftless father's land, and by up-to-date methods he worked wonders, and became the champion corn grower. Nearly everything turns to gold with him, and the book is further enlivened with 'possum-, deer-, and bear-hunting adventures, and some "white-trash" and negro dialect, by way of variety, sandwiched in with Department of Agriculture directions on the subject of nitrogen, potash, and phosphoric acid. The magic with which Joe succeeds in everything is rather over-done. The book is well printed, and comes from the good old publishing house of Harper's, New York.

Horse Owners! Use

GOMBAULT'S

Caustic Balsam



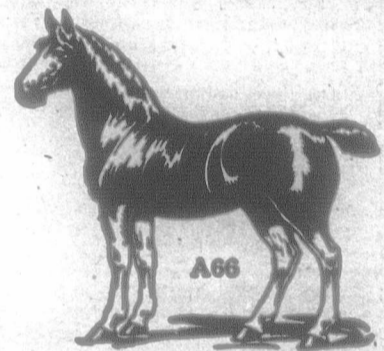
A Safe, Speedy, and Painless Cure

The safest, Best BLISTER ever used. Taken the place of all liniments for mild or severe action. Removes all Bunches or Hemorrhoids from Horses and Cattle. SUPERSEDES ALL CAUSTIC OR FIRING. Impossible to produce scurf or blisters. Every bottle sold is warranted to give satisfaction. Price \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars. The Lawrence-Williams Co., Toronto, Ont.

Make Your Lame Horse Sound, Like This

You Can Do It While He Works.

We want to show you that there isn't any affection that causes lameness in horses that can't be cured, no matter of how long standing. We want to send you our instructive book, "Horse Sense" No. 2.

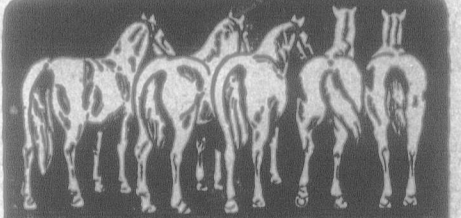


It describes all. And with the book we want to send you an expert's diagnosis of your horse's lameness. All this is absolutely free. Simply mark the spot where swelling or lameness occurs on picture of horse, clip out and send to us telling how it affects the gait, how long animal has been lame and its age.

We absolutely guarantee Maack's \$1,000 Spavin Remedy to cure Spavin, Bone or Bog Spavin, Curb, Splint, Ringbone, Thoroughpin, Sprung Knee, Shoe Bol, Wind Puff, Weak, Sprained and Ruptured Tendons, Sweeny, Shoulder or Hip Lameness and every form of lameness affecting the horse. We have deposited One Thousand Dollars in the bank to back up our guarantee. Cures while he works. No scars, no bluish, no loss of hair.

Your druggist will furnish you with Maack's \$1,000 Spavin Remedy. If he hasn't it in stock, write us.

Price \$2.50 per bottle and worth it. Address:—McKellar Drug Co., Binghamton, N. Y. LYMAN BROS. CO., LTD., TORONTO, ONT. Distributors to Drug Trade.



KEEP THEM WORKING

A horse in the field is worth two in the barn. You can't prevent Spavin, Ringbone, Splint, or Curb from putting your horse in the barn but you can prevent these troubles from keeping horses in the barn very long. You can get

KENDALL'S SPAVIN CURE

at any druggists at \$1 a bottle, 6 for \$5, and Kendall's will cure. Thousands of farmers and horsemen will say so. Our book "Treatise on the horse" free.

Dr. B. J. KENDALL CO., Keosauqua Falls, Vt.

5 Yearling Clydesdale Stallions

10 Young Holstein Bulls, 1 Stallion (imp.) in dam, others grandsons of Baron's Pride, bulls got by King Fayne Segis Clothilde, a grandson of King Segis and Grace Fayne 2nd's Homestead, 35 lbs. butter in 7 days (world's record), and 2 other sire's dams in R.O.P. milking up to 84 lbs. per day, and 16,000 lbs. in 11 months. Write, or better come and see them (a few Ponies).

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R. M. HOLTBY

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RICE'S PURE SALT

Best for table, dairy and general use.

North American Chemical Co., Limited, Ontario, Clinton.

Bone Spavin

No matter how old the blemish, how lame the horse, or how many doctors have tried and failed, use

Fleming's Spavin and Ringbone Paste

Use it under our guarantee—your money refunded if it doesn't make the horse go sound. Most cases cured by a single 45-minute application—occasionally two required. Cures Bone Spavin, Ringbone and Sidebone, new and old cases alike. Write for detailed information and a free copy of

Fleming's Vest-Pocket Veterinary Adviser

Ninety-six pages, durably bound, indexed and illustrated. Covers over one hundred veterinary subjects. Read this book before you treat any kind of lameness in horses.

FLEMING BROS., Chemists,
75 Church Street, Toronto, Ont.

CURED A WIRE CUT Left no Blemish

Mr. H. A. Nelson of Ponoka, Alta., after having tried many other remedies for wire cuts, writes enthusiastically about Douglas' Egyptian Liniment.

"I have used Egyptian Liniment for curing a horse from a bad wire cut. It has left no enlargement on the limb and the hair has grown over the scar so that if a person doesn't know about it, he will not notice any scar.

I have tried other remedies for wire cuts but never found one to compare with Egyptian Liniment."

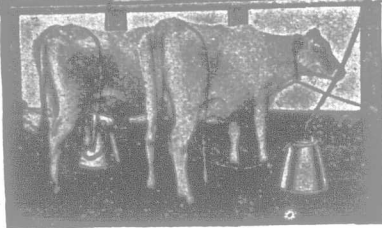
Results begin to show after the first application. Douglas' Egyptian Liniment stops bleeding at once and heals wounds like magic, without danger of blood poisoning.

Douglas' Egyptian Liniment can be had at any dealers for 25 cents

Free sample sent on request.

DOUGLAS & CO.
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HINMAN THE UNIVERSAL MILKER



Is adapted for HYDRO ELECTRIC OR GASOLINE ENGINE POWER.

1½ H.P. Will Operate 3 UNITS and SEPARATOR.

PRICE \$50.00 Per. UNIT.

H. F. BAILEY & SON
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GALT - - ONTARIO - - CANADA

2 HERFORD BULLS 4 YRS. OLD

good enough individually, and by breeding, to head any pure-bred herd. Another is polled Hereford coming 2 years old, the remainder range in age from 13 to 24 months, all good useful bulls for immediate sale. Inspection invited.

O'NEIL BROS., R.R. No. 2, Denfield, Ont.

1854 MAPLE LODGE STOCK FARM 1914
Estate of late A. W. SMITH
SHORTHORNS AND LEICESTERS
We still have an excellent lot of rams mostly sired by Imp. Connaught Royal, also one extra choice young bull for sale.

Situated one mile from Lucan Crossing,
P.O. Address R.R. No. 1, Clamby, Ont.

THE MANOR SHORTHORNS AND LINCOLNS

Young bulls, also heifers, got by, and cows in calf to one of the good bulls of the breed. In Lincoln 5 yearling rams and 10 ram lambs by an imported ram. Inspection solicited. J. T. GIBSON,
Denfield, Ont.

Shorthorns "Trout Creek Wonder" at the head of the herd which numbers about 40 head. Heifers and bulls of the best quality for sale at reasonable prices.
Duncan Brown & Sons, RR 2, Shedden

Shorthorns and Swine—Have some choice young bulls for sale; also cows and heifers of show material, some with calves at foot. Also choice Yorkshire sows.
ANDREW GROFF, R. R. No. 1, Elora, Ont.

Questions and Answers. Miscellaneous.

Leaky Chimneys.

I have a chimney that leaks badly. There is a fluid that runs down the side of the chimney which seems to come to the bottom of the chimney and leak through the bricks. I use an airtight stove, and burn dry beech wood that has been cut two years. Can you tell me the cause of this trouble; also remedy? Would plastering chimney on the outside do any good to keep it from leaking?

F. S.

Ans.—One probable source of the trouble is the lack of air in the stove. You are distilling the wood rather than burning it, and creosote and other products will be formed which undergo condensation after they reach the chimney, and trickle back in this fluid which you speak of. Allow more air to enter the front of the stove, so that the wood may undergo complete oxidation. It will afford you more heat as well for the wood consumed. Another way out of the difficulty, one correspondent explains, is to get a "sleeve pipe" and place it just above the length with the damper in it. Keep the sleeve open when once the fire burns up well. It is a saver of fuel, and an excellent ventilator. The strong draught through the hole in the sleeve prevents the smoke condensing.

Wife's Property Interests.

1. Married man becomes insane. After being pronounced so by physician, wife procures deed of farm. Is document of any value?
2. Party returns from asylum apparently better. Can he claim property?
3. For several years said party is actively employed acquiring considerable property. Pays for board whenever at wife's home. In event of death (leaving no will), can wife come into possession of said property, and what steps are necessary?

4. Should wife take possession of said property and pay part of debts contracted by aforesaid party? Is she responsible for all debts incurred?

Ontario. ENQUIRER.

Ans.—1. It is, unless, and until, set aside by the Court.

2. Yes; he can bring an action, if necessary, by way of asserting such claim.

3. She would be entitled to take out letters of administration to the estate, and, besides having the right to administer it upon such letters being granted her by the Surrogate Court, she would have a share of the property.

4. Not beyond the amount of the estate.

Wood Ashes as Fertilizer.

1. What value as a fertilizer has wood ashes sown with spring grain?
2. How many pounds per acre should be sown on clay-loam soil which is in medium condition?

3. Would fifteen-per-cent. coal ashes in wood ashes do any harm to the land?
4. What is the address of the Department of Patents for Ontario and Quebec?

T. A. W.

Ans.—1. Wood ashes are such a variable quantity that it is hard to advise their use. If you buy them for a reasonable figure they are a good fertilizer, but the potash and phosphoric acid which they contain vary so much that you can never know just what they are worth. Leached ashes are, of course, little use apart from the lime which they contain. Hardwood ashes will not contain much more than 5-per-cent. potash and 1½ to 2-per-cent. phosphoric acid. Figuring potash worth 5c. a pound and phosphoric acid worth the same, it would bring the value of a ton of ashes up to about \$7, counting in the lime which they contain. This is for the very best kind, and the only intelligent way to buy hardwood ashes is under a guaranteed analysis.

2. Sixty bushels to the acre is a good application of ashes.

3. The coal ashes incorporated with the wood ashes would do no particular damage.

4. Address Patents Branch, Parliament Buildings, Ottawa.

SELL YOUR MILK

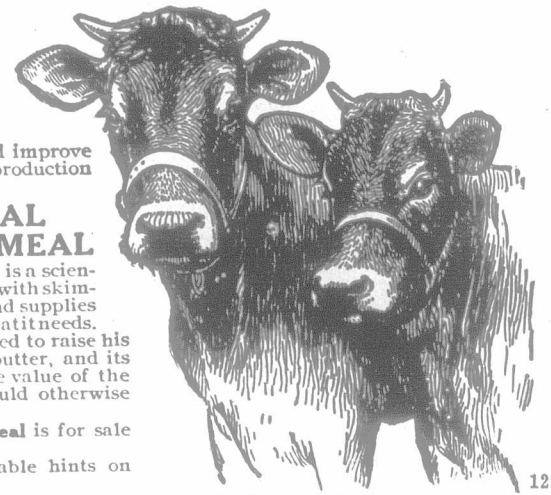
MANY a farmer who would like to raise his calves is prevented by the amount of milk necessary to feed them. By raising them he could select the best of the stock and improve the standard of milk or beef production of his herd.

INTERNATIONAL GROFAST CALF-MEAL

solves the problem for him. It is a scientific preparation which, mixed with skim-milk, takes the place of milk and supplies to the calf every food element that it needs. By its use the farmer is enabled to raise his calves and sell his cream or butter, and its cost is a trifle compared to the value of the whole milk that the calf would otherwise need.

International Grofast Calf-Meal is for sale by dealers everywhere.
Write for our book of valuable hints on raising calves—free.

INTERNATIONAL STOCK FOOD COMPANY, LIMITED, TORONTO, CAN.



Change Your Wagon Box Alone!



No need to call for help to change your hay rack or wagon box—you can do it yourself, easily, with a



Safety Hoist

Enables one man to change wagon boxes, lift gas engines and handle heavy loads easily. It elevates, lowers, locks and unlocks with one rope only. Holds load at any point. Heavier the load—tighter the grip.

No. 3 (illustrated)—Capacity one ton, One of a dozen sizes, 400 pounds to 4 tons.

See your hardware dealer or write today for FREE BOOK.

Hall Mfg. Co., 957 Cedar St., Monticello, Iowa

FREE-FARM ACCOUNT BOOK

Bickmore's Farm Account Book will be sent free to any farmer who will tell us who and where he is. This book is arranged to keep all accounts in simple form—more simple and certainly more practical than trying to remember them; shows what to charge against crop production; has a laborer's time record; and section for personal accounts. 64 pages, for ink or pencil. Not a cheap affair. Its quality is in keeping with BICKMORE'S Gall Cure, a soothing, healing salve, the old-time reliable horse remedy. Horses are now too valuable and too high priced to take chances of losing their services. Bickmore's Gall Cure heals and cures Harnessed Saddle Galls; Rope Burns, Cuts, Scratches, Grease Heel, etc. You don't have to lay the horse off. Bickmore's cures while the horse works. Great thing for sore teats in cows. The work-horse trade mark on every box. None genuine without it. Be sure to ask for Bickmore's Gall Cure when you go to buy and do not take a substitute. Farm Account Book is ready. Send today.



WINGATE CHEMICAL CO., Canadian Distr's, 8880 Notre Dame St. W., Montreal, Can.



Elm Park Aberdeen-Angus and Clydes

We have for sale a few two-year-old heifers by imported bulls and out of imp. cows bred to good bulls. We also have 3 three-year-old Clydesdale fillies, 2 two-year-old fillies and 2 yearling stallions. Five of them out of Lord Charming mares by King Seal, imp. Address: JAMES BOWMAN, Elm Park, Guelph.



A GREAT OPPORTUNITY TO GET NEW BLOOD

I have 20 Imported Hereford bulls arriving about 21st of March. These bulls are 12 to 13 months old, low set heavy bone, good head and horns and well marked. I will deliver any of these bulls to any place in Ontario or Quebec for \$150.00. I have also 10 Imported bulls 10 to 12 months, I will deliver for \$135.00. These bulls are all tuberculin tested and will guarantee them in every respect.

L. O. CLIFFORD, Oshawa, Ont

"THE AULD HERD"

We have a select lot of females of all ages, and of the best Scotch families for sale. Also a March bull calf, red, little white, an Orange Blossom by Broadhooks Ringleader.

A. F. & G. AULD, Eden Mills, P.O. Guelph or Rockwood Stations

SHORTHORN BULLS FOR SALE

8 head from 10 to 18 months, bred from cows which are from imported dams and sired by choicely bred bulls, prices are not high as I need the space for stabling cattle. Shropshire and Cotswold ewes bred to imported rams.

BLAIRGOWRIE FARM

JOHN MILLER, Jr., ASHBURN, ONT.



SHORTHORNS

Myrtle C.P.R. and G.T.R.

Our present offering consists of Nonpareil Lord -87184- Dam Imp. Dalmeny Nonpareil 6th 7 young bulls from 6 to 12 months old. 15 cows and heifers of choicest quality and breeding.

A. J. HOWDEN & CO., COLUMBUS, ONTARIO
Long-distance phone.

SHORTHORNS AND CLYDESDALES

5 Bulls of serviceable age, choice quality, some of them herd headers, sired by His Grace (imp.) -69740—and a number of cows and heifers. One stallion rising 3-year-old. A big good quality horse also four choice fillies, all from imported stock.

A. B. & T. W. DOUGLAS - - L. D. Phone - - STRATHROY, ONT.

R. O. P. SHORTHORNS - R. O. P. JERSEYS

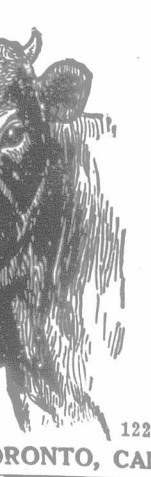
For the first time we are offering for sale Shorthorn cows and heifers, and Jersey cows and heifers with official R. O. P. records, with their official records is high-class individuality.

G. A. JACKSON, DOWNSVIEW POST OFFICE, WESTON STATION.



Crulckshank Butterfly Roan Chief -60865- heads the herd. Young stock of both sexes to offer. Also an extra good lot of Leicester sheep of either sex; some from imp sires and dams.

James Douglas, Caledonia, Ontario



TORONTO, CAN.

Alone!



BOOK

will tell us who and simple and certainly crop production; has ink or pencil. Not MORE'S Gall Cure, is too valuable and too high etc. You don't have to lay out for some treats in cov- e to ask for Hekmore's is ready. Send today.

and Clydes

These bulls are 12 to marked. I will deliver have also 10 imported all tubercular tested and ORD, Oshawa, Ont

ERD

Scotch families for Orange

for Rockwood Stations

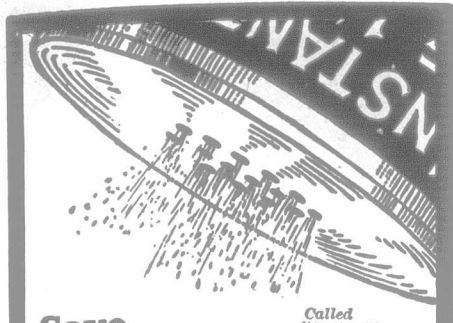
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ASHBURN, ONT.

ists of Nonpareil Lord liney Nonpareil 6th months old. 15 cow- lity and breeding.

JERSEYS

cester Sheep. Herd 1848. The imported Young stock of both er sex; some from imp



Save Your Chicks From Lice

Chicks can't get the right start in life if they are pestered with lice. These parasites inflict constant torment on chicks, keeping their vitality in a low state.

DR. HESS INSTANT LOUSE KILLER

Kills lice instantly—as soon as it touches them. Dust it on chicks when a week old.

Destroys lice on farm stock, bugs on cucumber, squash and melon vines, cabbage worms, slugs on rose bushes. Sifting-top can. 1 lb. 35c; 3 lbs. 85c (duty paid). If not at your dealer's, write

DR. HESS & CLARK Ashland, Ohio

Don't Cut Out A SHOE BOIL, CAPPED HOCK OR BURSITIS

FOR ABSORBINE

will remove them and leave no blemishes. Reduces any puff or swelling. Does not blister or remove the hair, and horse can be worked. \$2 a bottle delivered. Book 6 K free.

ABSORBINE, JR., the antiseptic liniment for man- kind. For Boils, Bruises, Old Sores, Swellings, Varicose Veins, Vascularities, Allays Pain. Price \$1 and \$2 a bottle at drugists or delivered. Will tell more if you write. W.F. YOUNG, P.D.F. 258 Lyman Bldg., Montreal, Can.

SHORTHORNS

Bulls all sold, choice females for sale. 1 yearling Clyde stallion, 1 weanling Clyde stallion, big, best quality and breeding.

John Clancy, Manager. Cargill Limited, Cargill, Ont., Proprietors.

GLENGOW SHORTHORNS

Still have a few choice bull calves, and several real nice heifers of different ages.

WM. SMITH, Columbus, Ont.

5 SHORTHORN BULLS

from 9 to 14 months, large growthy fellows; 1 high-class herd header, 9 months, sired by a Duthie bull; a few good young heifers all priced, worth the money. STEWART M. GRAHAM Lindsay Ontario

Spring Valley Shorthorns

A few of the best young bull prospects we ever had. They will please you. Will sell females too. Visit the herd; we think we can suit you. Particulars on application KYLE BROS., R. R. No. 1, Drumbo, Ont. Telephone, Ayr

Woodholme Shorthorns

I have a few more Scotch Bulls, of the low set thick kind, breeding unsurpassed, left for sale; among others a 10 month's, out of imp. sire and dam, a herd header of the right kind. Write me your wants G. M. Forsyth, North Claremont, Ont.

"OAKLAND" SHORTHORNS

50 head of good individuals to select from, 26 breeding females, headed by a fine Roan 1st prize, and sweepstakes bull. Just three bulls fit for service, all of high quality, and priced to sell. Dual purpose a specialty.

John Elder & Sons Hensall, Ontario

FLETCHER'S SHORTHORNS—Present offering 8 choice bulls, suitable for high-class herd headers, 8 to 11 months, and females all ages. Present stock bull "Royal Bruce" (imp.) = 55038 =, George D. Fletcher, R. R. No. 2, Erin, Ont. Erin Station, C.P.R. Long Distance Phone

Questions and Answers. Miscellaneous.

Hair Comes Out.

I have a driver, and every summer the hair near the roots of his tail comes out. It will be out for some time, but grows in again in the fall. Suggest remedy.

W. A. W.

Ans.—When horses are troubled with worms they sometimes scratch their tails. You do not mention whether there is any itchiness or not. Dissolve one dram corrosive sublimate in a quart of water, and rub a little well into the skin once daily. It will be necessary to part the hair and rub it well into the skin. This is a preventive application. As a hair-restorative, take one-half pint raw linseed oil, one-half pint coal oil, and four table-spoonfuls of sulphur. Mix and rub in well on skin daily.

Sweet Clover.

Kindly let me know whether you know anything about growing sweet clover. Is sweet clover hard to kill? How would you sow it, with grain, like other clover, or by itself? Where could I obtain the seed, and how much is it a bushel? Is sweet clover better than alfalfa for the purpose of feeding stock? Wm. Linton said in his letter that it is better, but I would like the opinions of other readers of "The Farmer's Advocate."

W. A. R.

Ans.—Sweet clover is a biennial plant which has been considered for many years by some as a weed. It is not very difficult to destroy in cultivated fields, but once it gains a foothold in permanent pastures, some difficulty may be experienced in ridding the soil of it. If it is cut before it seeds it will give little trouble. For a pasture or hay crop, sow it in the spring with a nurse crop, about twenty pounds per acre. The seed may be obtained from seedsmen advertising in these columns.

Land Plaster.

What do you think of sowing land plaster? Do you think it profitable? If so, what time of year would you sow it? What quantity per acre? Is it better on clover or spring grain? Where can one get same, and what price per hundredweight?

F. D. M.

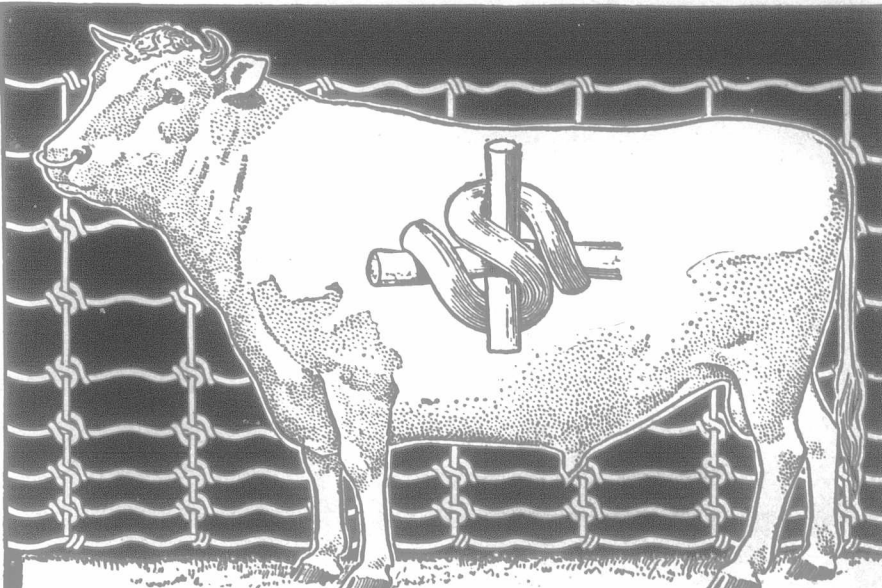
Ans.—Land plaster is not an economical source of lime. This is the element sought after in land plaster, and you would have to apply about 340 pounds of land plaster to get the same amount of lime that you would in 100 pounds of ordinary unslaked lime. In addition to this, the lime contained in land plaster is not in as good a form for the soil and plants as it is in other forms of fertilizers, or in the pure lime itself. If it is the lime which your soil requires, you can better provide it by buying the unslaked or slaked lime and applying from five hundred pounds to half a ton every four or five years. Put it on in the fall or early spring, so it will become incorporated with the soil.

Paralysis.

I have a cow due to come in on the 10th of March. Apparently in good health; eats well, but a little thin. We let her and the rest out to water as usual, on Monday night about 5 o'clock, and she was all right. Came in and ate her supper. Tuesday morning when I went out she was lying down, and when asked to get up would not try. We tried to help her, but she would make no effort. We got some men and got her outside and raised her again. This time she walked about seventy feet, then she laid down. We got her into the box stall, and the next day fixed pulley and slings to raise her. The first time or two she would stand about five minutes, then lie down. After that, when we got her up, she would not try to stand. Can move her feet all right when she is lying down. She eats well and looks bright. Could you say what the trouble is, or what I could do for her?

SUBSCRIBER.

Ans.—Evidently this is paralysis. If still alive, purge with one and one-half pounds of Epsom salts, with one ounce of ginger. Follow up with two-dram doses of nuxvomica three times daily.



The Bull Is Strong--But "Ideal" Fence is Stronger

They are in the same class and should be in the same field. The pedigree of "IDEAL" FENCE is known throughout Canada. It is not crossed with cheap wire, cheap material, or cheap labor to produce a cheap fence.

"IDEAL" FENCE is made of ALL NO. 9 HARD STEEL, EVENLY GALVANIZED WIRE. From top to bottom "IDEAL" is all the same—it's an "IDEAL" thoroughbred with an "IDEAL" pedigree—it's "made-to-last." Made with the object of getting the blue ribbon from you, the user, doing the judging.

Compare the weight of "IDEAL" FENCE with any and every other make. Compare the workmanship. Test it in the severest way you can devise. You owe this to yourself before buying any fence.

You will find "IDEAL" offers you the strongest, most durable and most serviceable fence that money can buy and at the lowest price you should reasonably expect to pay, counting weight, length of service and genuine value for your money.

Ask your nearest "IDEAL" representative to show you "IDEAL" FENCE and to give you a price on your requirements. If you do not know him drop us a card and we will send you our complete proposition by return mail. Write for Catalogue 121 which tells all about "IDEAL" FENCE.

The McGregor Banwell Fence Co., Limited, Walkerville, Ont.

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 2 years of age, for sale; every one of them a show heifer, and some of them very choice. Bred in my great prize-winning strains. Only one bull left, a red, 18 months old.

HARRY SMITH :: HAY P.O. :: EXETER STATION

Shorthorns & 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 mares, for sale also some foals. If interested write for catalogue of their breeding.

W. G. PETTIT & SONS FREEMAN, ONTARIO Burlington Junction, G. T. R. Bell Phone.

SHORTHORNS

"A PLENTY." I have a wide range for selection in Shorthorn bulls and heifers, in pure Scotch or Scotch topped, beef bred and beef type. Dairy bred and dairy type; make a point to visit my herd at Markdale, Ontario.

T. L. MERCER, MARKDALE, ONTARIO

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; these 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.

Shorthorns I have ten young Shorthorn bulls, some fit for service now. Part of them are bred, and made so that they are fit to head the best herds in any country, some of them are of the thick, straight, good feeding kind, that will produce money-making cattle; some of them are bred from the best-milking Shorthorns, and the prices of all are moderate. I have Shropshire and Cotswold rams and ewes of all valuable ages. Write for what you want. I can suit you in quality and in price. Ask for Bull Catalog. ROBERT MILLER :: STOUFFVILLE, ONT.

Shorthorn Bulls, Cows & Heifers

For Sale.—A number of them from imported Sire and Dam and from good milking families. Prices reasonable. Write or call on

H. J. DAVIS :: WOODSTOCK, ONT.

Maple Grange Shorthorns

Pure Scotch and Scotch topped. Breeding unsurpassed. A nice selection in young bulls, and a limited number of thick, mossy heifers.

R. J. DOYLE, Owen Sound, Ont. We have some of the best young bulls we ever bred, Scotch or Booth breeding, low thick mellow fellows of high quality

Glenallan Shorthorns also some heifers. Glenallan Farm, Allandale, Ontario R. MOORE, Manager.



It certainly does pay to use

Windsor Dairy Salt

15.95 AND UPWARD ON TRIAL.

AMERICAN CREAM SEPARATOR

A SOLID PROPOSITION, to send fully guaranteed, a new, well made, easy running, perfect skimming separator for \$15.95. Skims warm or cold milk; making heavy or light cream.

Absolutely on Approval.

The bowl is a sanitary marvel, easily cleaned. Different from this picture, which illustrates our large capacity machines. Shipments made promptly from WINNIPEG, MAN., TORONTO, ONT., and ST. JOHN, N. B. Whether your dairy is large or small, write for our handsome free catalog. Address: AMERICAN SEPARATOR CO. Box 1200 BAINBRIDGE, N. Y.

Lump Jaw

The first remedy to cure Lump Jaw was Fleming's Lump Jaw Cure

and it remains today the standard treatment, with years of success back of it. Known to be a cure and guaranteed to cure. Don't experiment with substitutes or imitations. Use it, no matter how old or bad the case or what else you may have tried—your money back if Fleming's Lump Jaw Cure ever fails. Our fair plan of selling, together with exhaustive information on Lump Jaw and its treatment, is given in Fleming's Vest-Pocket Veterinary Adviser

Most complete veterinary book ever printed to be given away. Durable bound, indexed and illustrated. Write us for a free copy.

FLEMING BROS., Chemists, 75 Church Street, Toronto, Ont.

HAY & STRAW

All kinds bought outright or handled on commission. Write at once stating grade, quality, quantity and when you could make shipment.

Crampsey & Kelly, Dovercourt Road Toronto

Questions and Answers.
Miscellaneous.

Boundary Trees—Wireless.

1. Would A be allowed to cut trees on a line? They are on A at the present time, as the fence is a snake fence; but if the fence were straight the trees would come on B.
2. Could you tell me where to write to get information about the Wireless Telegraph Company of Canada?

Ontario. J. H.
Ans.—1. No.
2. The Honorable the Secretary of State, Ottawa.

Payment for Board.

We had a music teacher who went through the country giving music lessons. He stopped at our place for dinner, then he commenced to stop at nights. He had supper and breakfast; also his horse fed. Now he wants his money for his teaching, but does not want to allow anything for board. Can we collect pay for board, as there was no agreement made about him stopping?

Ans.—It is altogether likely the music teacher can collect full pay for teaching, and if nothing was said about board and lodging, and you had invited him to stay, in all probability you cannot collect pay for same. However, it would seem out of all fairness that the teacher should allow something for accommodation, and a judge might take this into consideration.

Treating Lumber.

The timber and flooring over cellar in basement barn has rotted from becoming damp and then drying out, and will have to be renewed.

1. Will creosote preserve new timber, which I intend to put in?
2. What kinds of wood are most satisfactory to treat—pine, cedar, soft elm, hemlock, or tamarack?
3. Would dry or green timber be best to treat?
4. Could matched, tongued and grooved flooring be laid after being treated?
5. How much creosote would it require to treat 800 feet of flooring, and 20 pieces of 8 x 8 in. x 12 ft.?
6. How is creosote to be applied, by soaking in trough, or with a brush; warm or cold?
7. Where can it be procured, and about what would it cost?

Ans.—1 and 2. The life of some kinds of lumber is prolonged from 200 to 700 per cent. through treatment. It is acknowledged that basswood, birch, beech, cottonwood, white elm, red and sugar maple, red oak, and some others, are treated to advantage, but it does not pay to treat such woods as cedar, locust and oak, which are naturally durable, and difficult to treat.

3. Better to be done after the lumber is seasoned.

4. The treatment would not affect the way or ease in which tongued and grooved material would be laid together.

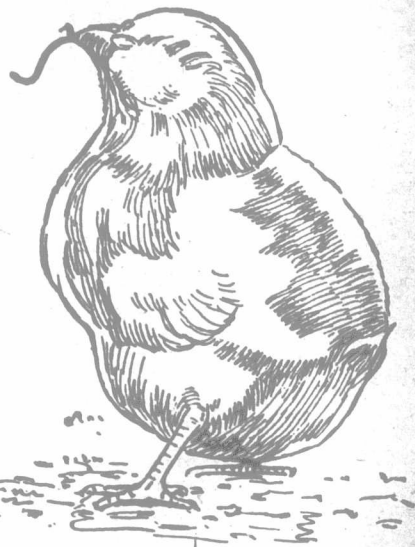
5. We cannot say definitely how much creosote would be required, as it will depend very much upon the liberality with which you apply it. Posts absorb from four to six-tenths of a gallon.

6 and 7. When treating posts, a large oil cask, or better, two of them, are connected with a long pipe. The material is put into the cask, and a fire is lighted under the center of this pipe in order to heat the liquid. It is heated for an hour or two and then allowed to cool down. The principle involved here is to heat the lumber and the cells of the lumber expand. While cooling, the treating material enters the cells of the lumber and impregnates them with preservative material. In the case of large timbers or boards, you would have to apply it with a brush. It is better to make two or three applications and have the treating material heated as hot as is convenient to work with. You will be able to procure creosote from your hardware dealer; or, failing there, from your druggist. It is manufactured in Canada, and it is somewhat cheaper in the Maritime Provinces, where, up to a little while ago, it could be procured at about 15c. a gallon.



PRATTS Poultry Remedies

- Pratts Poultry Regulator, 25c to \$9
- Pratts Baby Chick Food, 25c to \$6.75
- Pratts Liquid Lice Killer, 25c qt., \$1.00 gal.
- Pratts Powdered Lice Killer, 25c-50c
- Pratts Roup Cure, 25c-50c
- Pratts White Diarrhoea Remedy, 25c-50c
- Pratts Poultry Disinfectant, \$1.50 gal.
- Pratts Cholera Remedy, 25c-50c
- Pratts Head Lice Ointment, 25c
- Pratts Gape Remedy, 25c-50c
- Pratts Bronchitis Remedy, 25c-50c
- Pratts Condition Tablets, 25c-50c
- Pratts Sore Head Remedy, 25c-50c
- Pratts Scaly Leg Remedy, 25c-50c



Raise The Little Chicks

Don't lose sight of the fact that the youngsters of to-day are the producers of to-morrow. Raising them is a simple matter if correct methods are followed. The unnecessarily heavy death rate in baby chicks is largely due to improper feeding.

Pratts Baby Chick Food

is a scientific ration for the successful raising of young chicks. Fed for the first three weeks, it lays the foundation for vigorous health, furnishing the same elements of nutrition, in the same proportions, as supplied by the mother hen. Pratts Baby Chick Food is not a cure-all, but it does prevent disease by building bone and muscle and imparting the stamina necessary to resist intestinal disorders and other ailments common to the newly hatched. Order a package TO-DAY.

"Your Money Back If It Fails."

At your dealer's, 14-lb. bag, \$1.00; 6 1/2-lb. pkg., 50c.; 3-lb. pkg., 25c.

PRATT FOOD CO. of Canada, Limited TORONTO

Fill in and mail this coupon together with 10c. in stamps to cover postage, wrapping, etc., and we will mail you a copy of "The Poultryman's Handbook," 160 pages, profusely illustrated.

Coupon "A. 1"

Send me your 160-page Poultry Book. Enclosed find 10c. in stamps.
Name
Address P-5

TAKE OFF THE HORSE'S COAT ALSO

Do you go at the spring work with your overcoat on? Of course you don't—Coats are a burden—you even roll up your shirt sleeves. Then how can you expect the horses to show proper energy under the hot sun with the same heavy coats on that they have worn all winter and which hold the wet sweat and dirt? Clip them before the work begins with a

Stewart Ball-Bearing Clipping Machine

They will get all the nourishment from their feed—be healthier and look better. They will dry off quickly, be more easily cleaned and feel better generally—that means work better. The Stewart Machine is not an expense—but a highly profitable investment. It turns easily, does more and closer work than any other machine—can't get out of order. Gears all file hard and cut from solid steel bar—protected and run in oil. Includes 6 feet new style easy running flexible shaft and celebrated Stewart's Single-Tension Clipping Head. The only machine that can be used without change for horses, mules and cows. You can make money clipping your neighbors' horses while yours will do better work. Each machine guaranteed. If it doesn't give perfect satisfaction, return it and get your money back. Complete from your dealer at \$9.75. If he can't supply you send \$25 and we will ship one C.O.D. for balance.

Stewart No. 9 Ball Bearing Shearing Machine

will more than pay for itself the first season. Any boy can run it all day without tiring. All joints ball bearing with ball bearing shearing head. The equipment includes four sets of knives fully guaranteed. Price \$10.00. If your dealer hasn't it, send \$2.00 and pay balance C. O. D.

Chicago Flexible Shaft Co.
110 LaSalle Ave., Chicago, Illinois
Write for complete new catalog showing world's largest and most modern line of horse clipping and sheep shearing machines.

LAKESIDE AYRSHIRES

A select lot of young bulls, all ages, sired by the following: Barcheskie Cheerful Boy (Imp.) 28879 (7731); Hobbsland Bonnie Boy (Imp.) 33275 (8776); Morton Mains Planet (Imp.) 33279 (8774); Auchenbrain Sea Foam (Imp.) 35758 (8865). Imported dams. Record of Performance dams.

GEO. H. MONTGOMERY, Proprietor Dominion Express Bldg., Montreal. **D. McARTHUR, Manager** Phillipsburg, Que.

STOCKWOOD AYRSHIRES Stocks of all ages for sale, one 12 months old bull (Imp.) in dam will make a winner for someone; also bull calves from a week to two months old all from show cows and sired by White Hill King of Hearts, a son of the great bull Easy Mee, and a half-brother of Brae Rising Star, highest priced bull in Scotland; prices and terms easy. **D. M. WATT** ST. LOUIS STA., QUEBEC.

GLENHURST AYRSHIRES ESTABLISHED OVER 50 YEARS AGO, and ever since kept up to a high standard. We can supply females of all ages and young bulls, the result of a lifetime's intelligent breeding; 45 head to select from. Let me know your wants. **JAMES BENNING, WILLIAMSTOWN P.O.** Summerstown Sta., Glengarry

SPRINGBANK HOLSTEINS Two young bulls, one 12 months, and one over two months, for sale, from good milking strains at low figure, for quick sale. Also a few choice grade heifers. **WILLIAM BARNET & SONS** Fergus, P.O., Ont. R.R. No. 3.

HOLSTEINS AND YORKSHIRES Minster Farm offers a bull fit for service, from a daughter of Prince Posch Calamity Bleske (2 R.O.P. and 2 R.O.M. daughters) and a son of Kandyke Queen Pieterje, whose sister held world's record for 2 and 3 years of age. For particulars, write, **Richard Honey & Sons**, Brickley, Ont.

IDEAL STOCK FOOD

will supply give you good results. We guarantee them or refund your money. You can raise young calves on IDEAL FOOD without milk, by using our Food you will surely make money. Try it on any animal. We appeal to dairymen to use IDEAL FOOD, and see how your milk production increases in every way. We hold the highest analysis of any food made, and for its purity we challenge a test with any other food or so-called medicine concoctions. We are satisfied after you use IDEAL FOOD you will use no other.

IDEAL POULTRY FOOD

will keep your fowls healthy, it does not have to take a back seat for egg production. Our foods are guaranteed free from poisonous drugs. Ponder this fact, then you will realize its meaning. Manufactured at

92 JOHN STREET S.

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Calves Without Milk

BLATCHFORD'S CALF MEAL The Complete Milk Substitute

The result of over 100 years' experience with calf-raisers. The only Calf Meal made in an exclusive Calf Meal Factory. As rich as new milk at less than half the cost. Makes rapid growth. Stops scouring. Three calves can be raised on it at the cost of one. Get Bulletin, "How to Raise Calves Cheaply and Successfully Without Milk" by sending a postcard to



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Prilly, 7 day butter record	- 25.20-lbs.
Beauty Pietertje	- 30.51 "
Lilian Walker Pietertje	- 30.01 "
Ruby Walker Pietertje	- 30.22 "
Segis Walker Pietertje	- 27.85 "
Buttercup Clothilde Pietertje	- 32.92 "
Mary Walker Pietertje	- 31.81 "
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These are the Champion 3, 4 and 5 Generations of the

HOLSTEIN HERD

Buy a son of King Segis Walker from daughters of Pontiac Korndyke and get connected with this family.

A. A. FAREWELL, Oshawa, 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, ONT.

Maple Grove Holsteins

Present offering: a few bulls fit for service, sired by the great King Lyons Hengerveld, who is beyond doubt the richest butter and milk bred bull of the breed in Canada. These bulls are out of high testing R.O.M. cows and heifers, and individually are unsurpassed. Also a few heifers just freshened. If you want the best write me for prices and particulars.

H. BOLLERT, R.R. No. 1, Tavistock, Ont.

Woodbine Holsteins

Young bulls and bull calves, sired by Duke Beauty Pietertje; sire's dam's record 32.52 lbs. butter, and she 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 & SONS, R.R. No. 2, Paris, Ont.
Stations: Ayr, C. P. R.; Paris, G. T. R.

The Maples 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, Ingersoll, Ontario

Holsteins

Young herd headers. Just now headed up to 15 mos. of age, closely related to our Toronto Dairy Test Champion, and sired by the richly bred, Imperial Pauline De Kol.

W. W. Walker & Sons, Utica P. O. Manchester Station.

Questions and Answers. Miscellaneous.

Overdue Taxes.

Has Municipal Council power to pass a by-law to add 5 per cent. on all tax bills not paid by December 15th. My taxes were \$60. I sent cheque on the 18th of December, or three days late, and the collector made me pay three dollars extra, or five per cent. Is it legal to do so?

Ontario.

Ans.—Yes.

Hens Lame.

Kindly tell me what you think the cause of laying hens and pullets becoming lame. They are on boarded floor, with depth of straw for scratching, get plenty of grit, and are being fed dry grain morning and night, with mash at noon. Have also given them meat lately on account of feather-eating. Several have been lame, and then got all right, but have some pullets now that cannot stand.

C. B.

Ans.—Your hens may be suffering from rheumatism due to a damp pen, or tuberculosis may have caused the lameness. Give them free range; keep the pen clean, free from draught, light, and as dry as you can. If it is tuberculosis, and you should perform a post-mortem examination upon one of the badly infected birds, you would likely find the liver and mesenteries showing lesions.

Raising Pigs.

I am thinking of letting five of my young sows have pigs about September 1st. Do you think it will pay me? Do you think I will be able to get \$8 per pair for them at six weeks old next fall? What is the cause of my two-months-old boar losing the use of his hind legs?

W. M.

Ans.—We do not make a practice of estimating what the price of any class of farm stock or farm produce is going to be worth in the future. If we could do this satisfactorily, our columns would be full of such information. You know your own conditions best, and if you are in a position to properly care for the number of sows and their litters, it is more than likely that you will make good returns from the raising of pigs. Present indications do not point to a low price for hogs, but, of course, demand and supply may change somewhat. The boar is likely crippled with rheumatism, or perhaps has been injured in some manner.

Alfalfa in Low Land.

I want to seed down ten acres of alfalfa. I have selected a flat, level field, black-ash bottom, well drained; no water lying on whatever. This field has been cropped with all kinds of grain for twenty years, and never had any manure except what it got through pasture, and still the grain lodges. Now, some of the neighbors think alfalfa won't do on it. They think the roots will rot when they get below the drains, so I would like your advice. I have two other fields, one on each side of the above-mentioned, but they are uneven. The hollows are drained, but the higher parts are yellow in color, and very poor. I intend to seed them with red clover to plow down in the fall, as I need all the manure for corn and roots. Or do you think alfalfa would do well on them as they are? I would like to sow barley as a nurse crop, and that would not do on the poor land. Is it well to sow alfalfa as soon as the land is dry enough, or is that too early?

YOUNG FARMER.

Ans.—As a general thing, alfalfa does not do extra well on low, flat land, and we would hesitate before trying it too extensively on soil of the nature of your ten-acre field. It would be better to try it on a small portion of the field and see how it comes out. The higher, rolling land, which has the water basins drained, would possibly be better for this crop. However, you state it is poor. If you did not care to sow the field to barley, you might seed the alfalfa alone early in July after a rain. It might do better to have the land worked well up to this time and then seed it. We would advise having the seed inoculated in any case, as we take it that you have not grown alfalfa on the farm previously. Try it on a small scale at first. If the crop is a failure the loss will be smaller, and if it is successful you will have the assurance that it is a safe venture.

Feed Your Stock on

PURE CANE MOLASSES

EXPERIENCED stock feeders know the value of Cane Molasses in toning up the stock and finishing fattening animals. It is extremely palatable and much relished by cattle, pigs and horses. By its sweet taste, great palatability and high nutrient content, it is very valuable to mix with other feeds, especially at this season, when the last stages of finishing fattening animals have been reached and when other feed may be growing scarce. Put up in barrels containing about six hundred pounds, also half barrels.

Dominion Sugar Company, Limited
Wallaceburg, Ontario

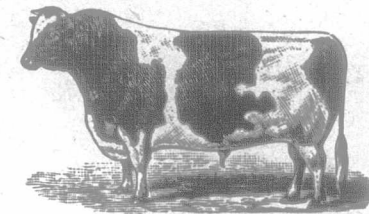
Complete Dispersion of 65 Holsteins

BALES BROS., OF LANSING P. O., ONTARIO

Having sold their farm on Yonge Street, will, without reserve, on

Tuesday, March 24th, 1914

Sell by auction their entire herd of 65 head of richly-bred, high-producing and showyard-quality Holsteins. 54 head of females. 11 bulls. 16 of the heifers, from calves up to two years of age, are daughters of the famous and intensive bred bull, Sir Lyons Hengerveld Segis, whose five nearest dams have records averaging 27.51 lbs.; his dam and sire's dam over 30 lbs. for 7 days, 126.52 lbs. for 30 days, and an average butter-fat test 3.98%. He a son of the greatest producing sire of the breed, King Segis. The females of this bull. The bulls range in age up to 2 years. R. O. P. records: 13,539 lbs. in 10 months; 13,000 lbs. for 2-year-olds; an average for the mature cows on ordinary feed of 60 lbs. per day. A big, high-class lot of cattle in prime condition. Terms: Cash, or 8 months' with 6%. For catalogue write:



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Auctioneer.

J. C. BALES,
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Offers for sale: A son of Rag Apple Korndyke 8th out of a daughter of Pontiac Korndyke with a record of 27.72 lbs. in 7 days, averaging 4 1/2% fat. Grand dam has a record of 29 lbs. Calf is nearly ready for service. Write me for description and breeding.

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Senior herd bull—Count Hengerveld Fayne De Kol, a son of Pietertje Hengerveld's Count De Kol and Grace Fayne 2nd. Junior herd bull—Dutchland Colantha Sir Mons, 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—

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For Sale, four choice Yorkshire sows, bred; show stock, weight about 300-lbs.

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Some choice young sows, bred, for April and May farrow; also a few boars. Write for particulars.

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Nine well-grown young sows eight months old, some bred, for sale at reasonable prices.

M. McCALLUM, Shakespeare, Ont.

Questions and Answers.
Miscellaneous.

Imported Horses.
Can an American-bred Clydesdale stallion be brought into Canada and be billed to travel as an imported horse?
D. S. M.

Ans.—A stallion which is brought into this country from any other country can correctly be termed imported, although the word "imported" is generally interpreted by the casual reader to mean as coming from the home of the breed.

Oats, Fruits and Fertilizer.

1. Which is the better oat for sandy soil, Siberian or Banner, or is there a better?
2. The names of best peaches, pears, plums and grapes, for home use.
3. What would be a good fertilizer for corn on gravelly loam, rather poor?
W. H.

Ans.—Both of these two varieties are excellent yielders. We are not in a position to state which would do the better on your soil. It is more than likely that there would be very little difference in yield. Taking all things into consideration, while the Siberian may slightly outyield the Banner, the latter variety is preferred by many.

2. Of peaches, we would advise St. John, Fitzgerald, and possibly a few Elberta; pears, Bartlett, Anjou; of plums, you might try Burbank, Reine, Claude, Lombard; and grapes, Niagara (white), Lindley and Agawam (red), Concord and Warden (black).

3. A very good fertilizer for corn on a sandy soil would be 120 pounds of nitrate of soda; 340 pounds of acid phosphate, and 140 pounds muriate of potash.

Pasturing Hogs.

We purpose sowing some kind of a crop for pasturing hogs this coming season, and were thinking of sowing rape in drills and cultivating between the rows, and dividing the plot in the center and pasturing first one half and then the other.

1. Would you suggest any kind of crop as being likely to give better results than rape?
2. Will rape do as well when sowed as soon in the spring as the ground can be worked, as when sowed later on, or will it do nearly as well?
3. How much land would it require to feed 35 hogs, of different ages, through the season?
4. How much seed per acre should be sowed?
5. Would it be likely to give good results all summer under ordinary conditions?
6. If you can recommend anything better than rape, would you kindly describe method of cultivation, etc.?
7. Do black spots from the size of a pea to the size of a quarter on a pure-bred Tamworth pig disqualify him from winning in the show-ring?
A. B. A.

Ans.—1. We know of no crop which would give better satisfaction for a hog pasture than rape. You might improve upon the system, however, by sowing perhaps a small part of your plot to peas and oats, and pasturing this off before the rape is ready.

2. Rape will not likely do quite as well if sown too early in the spring. The general season of sowing is around about the end of May or early in June.

3. According to the amount of other feed given, and pasture properly handled, from two to four acres should be enough. Of course, where the smaller acreage is used, a great deal of other feed is given. We take it that the hogs are being grown and finished with pasture as a supplement to other rations.

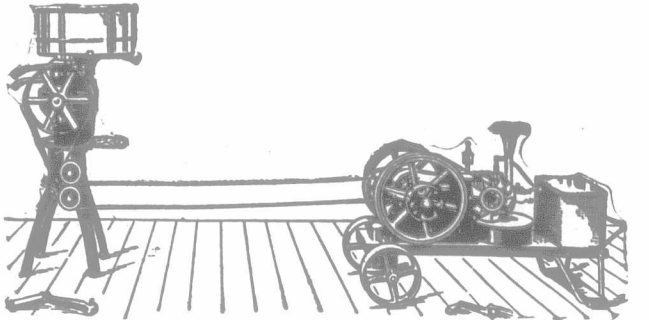
4. If the rape is sown in drills, one and a half pounds to the acre is sufficient; if broadcasted, four to five pounds per acre. If peas and oats are sown, sow about a bushel of each, or possibly a little larger proportion of oats. Peas make the best hog pasture.

5. Yes, if properly handled.

6. The crop of peas and oats needs only the ordinary spring cultivation necessary in preparing land for a cereal.

7. The standard of excellence for Tamworths regarding color reads: "Golden-red hair on a flesh-colored skin, free from black."

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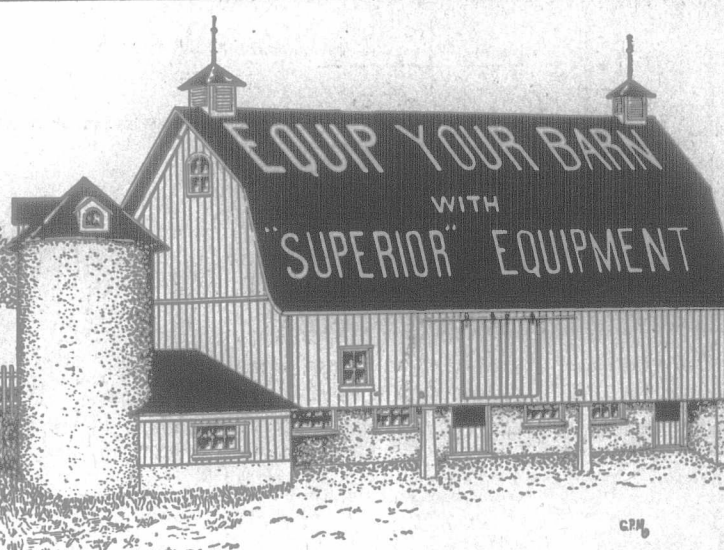
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Each Tuesday, March 3rd to October 27th inclusive. Via Chicago, St. Paul or Duluth.

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 Edmonton and Return - \$43.00

From Toronto and stations north and west of Toronto. Proportionate low fares from stations east of Toronto. Return limit two months.

Full particulars at Grand Trunk Ticket Offices, or write C. E. HORNING, D. P. A., Toronto, Ont.

A FARMER'S GARDEN

Helps his wife to plan her table in busy times. Saves work and worry; saves buying so much meat, gives better satisfaction to the help. A good garden will be almost impossible to your busy life without proper tools. They cost little and save much hard work.

IRON AGE WHEEL HOES AND DRILLS

Will sow, cultivate, ridge, furrow, etc., better than you can with old-fashioned tools and ten times quicker. A woman, boy or girl can do it. Can plant closer and work these hard soils while the horses rest. 38 combinations from which to choose at \$3.00 to \$14. One combined tool will do all of the work. Ask your dealer to show them and write us for booklet, "Gardening With Modern Tools" and "Iron Age Farm and Garden News", both free.

The Batesman-Wilkinson Co., Limited, 412 Symington Av., Toronto, Ont.

Write for Free Book on Spraying

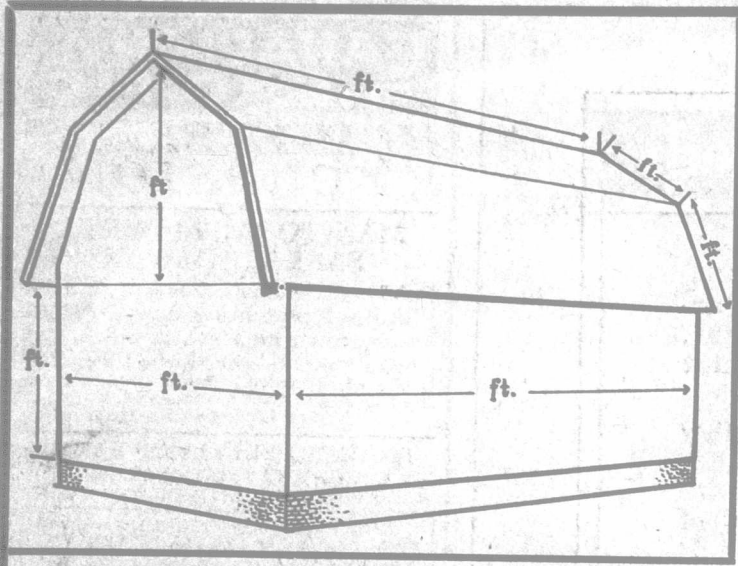
300,000 use these wonderful sprayers to rid fields, fruit trees, gardens of blight, disease and insects—to make all produce big. Auto Spray No. 1—Capacity 4 Gallons. Auto Pop Nozzle throws from fine mist to drenching stream. Does not clog. 40 styles and sizes of Hand and Power Outfits. Large sprayers fitted with

Non-Clog Atomic Nozzle
 only nozzle that will spray any solution for days without clogging. Fits any make of sprayer. Write for valuable Spraying Guide Free. The E. C. Brown Co., 67 JAY ST., ROCHESTER, N.Y.

SEED CORN

that will GROW. I have 300 bus. Wls. No. 1 White Corn and 100 bus. of White Cap Yellow Dent that was picked for seed. Picked from standing stalk after being fully matured and placed on drying racks. Never piled up, and thoroughly dried before cold weather. This corn is an early variety and especially good for silo and fodder. Will ship in crate or shelled. If shelled will be tipped and graded. Will ship on approval. Address **THE POTTER FARM,** Roy Potter, Manager Essex Ont.

Please mention "The Farmer's Advocate."



Fill in the dimensions of the barn you are going to build. Cut out this illustration and mail it to us. We will quote you prices laid down at your nearest railway station.

"Eastlake" Steel Shingles and "Metallic" Corrugated Iron

have no equals for barn building. You know the main points to consider when building a barn:

Safety First.—Safety against fire, lightning and storms.

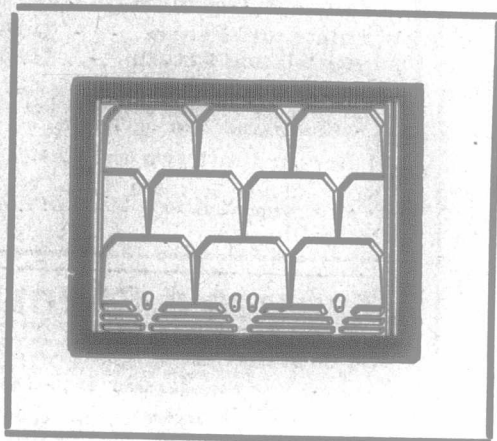
Economy Second.—First cost of materials must not be high.

Upkeep Third.—Painting and repair bills must be "cut out" altogether.

Durability Fourth.—The barn must "live" as long as the man who builds it.

"Metallic"-built barns are **safe, economic**; require **no upkeep** expenditures and are more **durable** than wood, or any other method of construction at the same price.

Therefore, get the cost of barn building with "Metallic" materials—send in your specifications.



This is an "Eastlake" Steel Shingle

The "Eastlake" is made of the best obtainable steel—zinc coated on both sides. Every "Eastlake" Shingle is perfect, there can be no errors in laying. Any intelligent person can cover a roof with "Eastlake" Shingles.

You save many dollars in labor, because it takes less time to lay "Eastlake" Shingles. Patent counter-sunk cleat and patent side lock and gutter are big features in the "Eastlake"—perfect drainage and no warping.

"Metallic" Corrugated Iron—Different from other corrugated iron. Better galvanized. Each corrugation deeper, giving greater rigidity. Corrugations are made separately and accurately, ensuring a perfect fitting overlap.

Remember, that the sides of your barn should not look unsightly, and should have the maximum of strength and weather-resisting quality.

We Will Give You the Greatest Value for Every Dollar You Invest in a Barn

By sending a diagram or drawing, you get the cost of "Eastlake" Zinc-Coated Shingles, which can be laid by any local workman. If you finally build with these materials, you make a barn that is clean, and that needs no paint or repairs. You add \$500 to \$1,000 on the selling value of your farm by having metal instead of wood.

You will get an estimate on the only proven metallic shingle roof, where 29 years of service can be shown on roofs with the same pattern of shingle and material that you will have. No other metal roof has been made this length of time in Canada, though one maker of metal roofs had been in business in other lines, commencing to make shingles seven years after we had started as pioneers. No metal shingles were made in Canada prior to 1884, when we started the first Canadian factory. If you write to-day, you are taking the first step to adopt the new economical way to build barns under modern conditions, instead of sticking to methods which were economical in their day, under conditions that no longer exist.

The Metallic Roofing Co. Limited

MANUFACTURERS

Established 1884

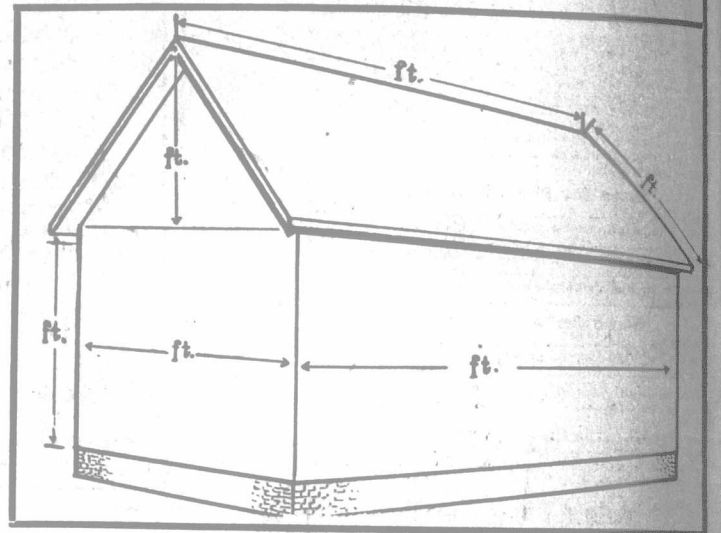
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THE CEILINGS AND WALLS INSIDE YOUR HOME --- ARE THEY "METALLIC?"

More about "Metallic" Methods

We help the farmer who is wide awake to the advantages of co-operation. Let us help YOU, sir!



Here is another illustration you can use to get a quotation from us

Send in your requirements to-day



Don't omit to mention your nearest railway station when sending for FREE quotations.