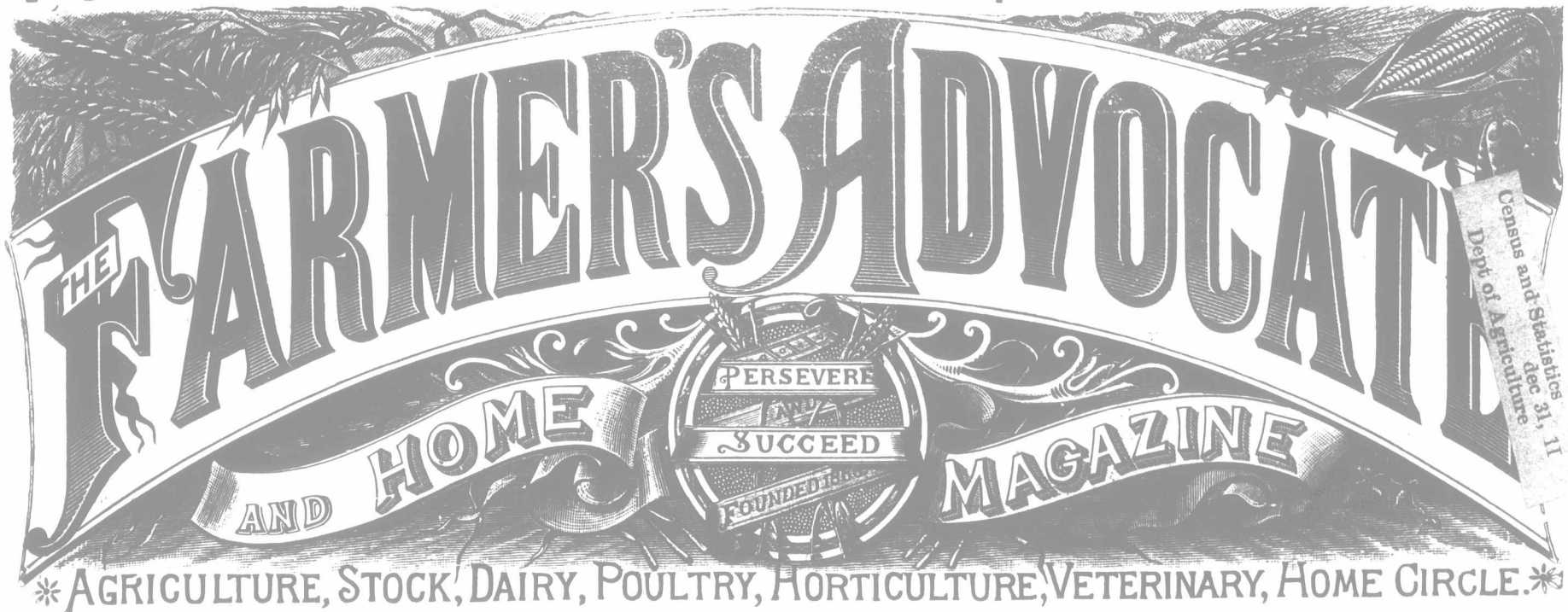


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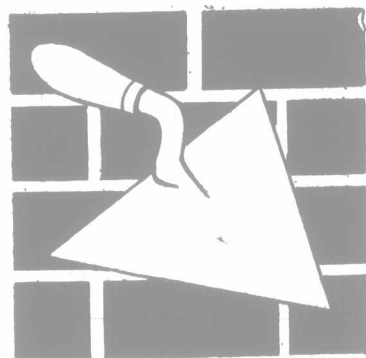


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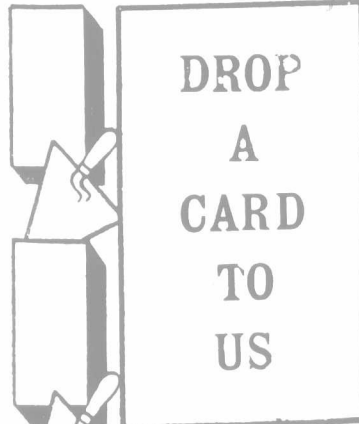
VOL. XLVI.

LONDON, ONTARIO, APRIL 27, 1911.

No. 970



Would they use it on a
"Sky-Scraper" The New Standard
 Bank Building, Toronto
 if there was a better roofing



They chose BRANTFORD Roofing for the Standard Bank Building's Head Office in Toronto—the Queen City's newest and most modern office-building. It's in the very heart of the City; fireproof in every detail. Would they have been allowed to use this roofing if anything MORE SURELY FIREPROOF could have been found? Or any roofing more wholly economical? You can easily see that your buildings can have no better roofing than

Brantford Roofing

The architects tested every kind of roofing there is, before they chose Brantford Roofing for this splendid structure. They dissected it. They found its base is Pure Long-Fibre Wool, flexible and weather-resisting. They learned how this is saturated through and through with Pure Asphalt—the mineral fluid that wear, nor heat, nor water, cannot affect materially. They chose this roofing only after testing EVERY roofing material you ever heard of.

APPROVED BY FIRE-CHIEFS AS REALLY FIRE-PROOF

Brantford Roofing is certified as really fireproof by the City Architect of Toronto. The Fire Department of that city also certifies to its fire-resistant qualities. And we assure you that it will outlast, figured by cost per roof or cost per year, any other roofing you can buy. Isn't that the kind of a roof you want for your house?—your barn?—your outbuildings?

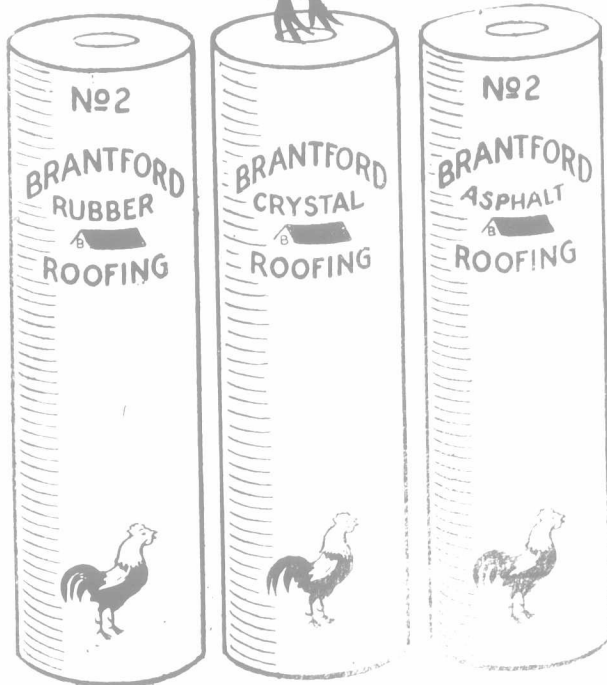
YET IT COSTS NO MORE THAN MERE ORDINARY ROOFING

Price is a poor guide in buying roofing. Yet you must pay about as much for the common kind as we ask you for Brantford Roofing. You should learn to judge QUALITY before you buy. And our big FREE BOOK—which please ask for—teaches you frankly how to do just that. Send for it—today—NOW.

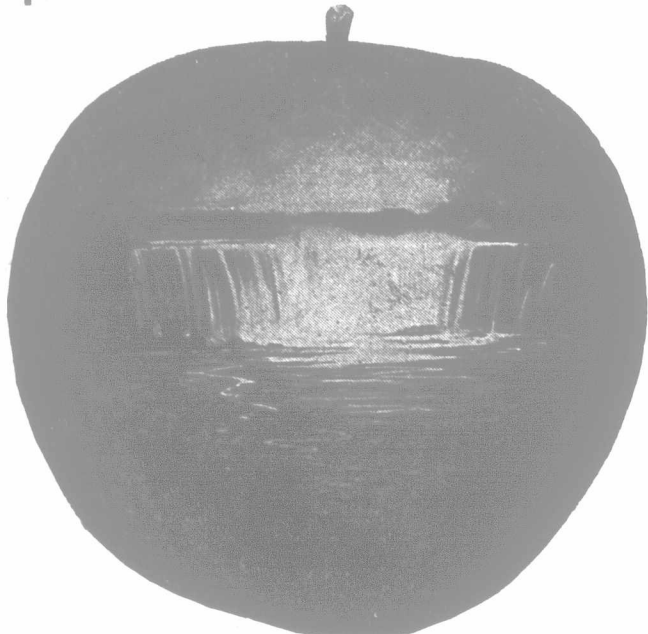
GET ROOF-SERVICE—ROOF-VALUE—ROOF ECONOMY

There are three kinds of Brantford Roofing. Each exactly suits some special roof-need or climatic condition. One is ASPHALT with a silica sand finish—wears like steel. Another—called Rubber (though it contains no rubber)—has a smooth, rubbery finish. Crystal is surfaced with wear-defying rock-crystal. Three weights in each of two; heavy weight only in the third. Samples of each come to you for asking—and the book comes along.

Made to meet a standard, not to meet a price



\$100 a Day SAVED if You SPRAY. **\$100** a Day LOST if You DON'T.



Trade-mark

FARMERS AND
FRUIT GROWERS

NIAGARA BRAND LIME-SULPHUR

Combination Winter and Summer Spray

AS WINTER SPRAY it will control **San Jose Scale, Oyster-shell Bark Louse, Blister Mite, Peach Curl, Aphids, and all sucking insects.**

AS SUMMER SPRAY, combined with Arsenate of Lead, it will control **Apple Scab, and other fungus diseases, Codling Moth and all chewing insects.**

This spray is not an experiment. It was used by thousands of fruit-growers in Ontario in 1910 with excellent results.

Write for our book on "Sprays, and How to Use Them."

Every Fruit-grower Should Have an Hydrometer to Test His Spray. — We will mail to any address in Canada, on receipt of 80c., the Standard Hydrometer, Pennsylvania pattern, showing both Beaume and specific gravity reading.

BEAN SPRAY PUMPS—Hand and power—Strong, durable and efficient. Built to wear and give large capacity with high pressure. Let us prove this to you. Send for illustrated catalogue.

NIAGARA BRAND FACTORIES:

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HOOD RIVER SPRAY MFG. CO., Hood River, Ore.
NIAGARA SPRAY CO., of N. S., Ltd., Kentville, N. S.
BEAN SPRAY CO., Cleveland, Ohio.
OREGON SPRAY CO., Portland, Ore.
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NIAGARA BRAND SPRAY CO., LTD., Burlington, Ont.

ORDER NOW WE CAN MAKE IMMEDIATE SHIPMENTS



THE CANADIAN AIRMOTOR

Will do all the work of the farm which requires power, such as grinding feed, cutting straw or pumping water. It is strong, simple and reliable. Made of the best quality American steel, galvanized in our own factory, the highest quality possible is attained. The man who owns one knows best what it will do.

Every Airmotor installed by us is guaranteed to give the maximum power for the size wheel installed.

Write for our new catalogue, 4

The Ontario Wind Engine & Pump Co. (Limited)
WINNIPEG TORONTO CALGARY



The Paint That Stands The Weather

The trouble with most paint is that while it looks all right when first put on, it has no lasting quality. But Moore's Paints are made of the purest ingredients according to a formula especially invented to insure durability.

Moore's House Colors

Moore's Paints are sold in sealed cans, ready to use. No mixing or bother necessary. Your dealer probably has them. If not, write to us, and we will give you the name of a dealer who has.

MOORE'S Paints and Varnishes For Every Purpose

Muresco Muresco is a wall finish now on the walls of more than a million American homes. It is applied over plaster, wood or metal. Write for descriptive literature.

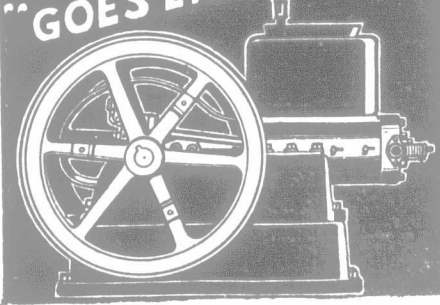
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Brooklyn, N. Y. Carteret, N. Y.
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A quiet dependable Gasoline Engine of mighty power. Improved cooling, and ignition systems. Perfect, economical carburetor. The Gilson Engine is approved by the foremost authorities and mechanical engineers. All sizes. Write for catalogue. **Founded 1850.**

GILSON MFG. CO. LTD.
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GILSON ENGINE "GOES LIKE SIXTY"



Early Amber Sugar-cane Seed and White Cap Yellow Dent Corn for Sale.

Buy corn on cob and string as a guarantee of quality and vitality. My corn is well acclimatized to this northern zone, and improved by 19 years of continuous, careful selection. My cane seed is an excellent sample, and greatly improved as regards type, earliness, etc. Try some as a cheap seed, regulating fodder for cattle, horses, hens and hogs. It is a heavy cropper, my 8 acres last year averaging 22 tons per acre. Send for prices, etc., to: **Edgar M. Zavitz, Coldstream, Middlesex Co., Ont.**

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With the best plan of most practical, satisfactory and durable wash and watering system in the world.
L. Crandall, Picton, Ont.

Not Merely a Bicycle

When you buy a suit of clothes, you do not merely buy fabric. You buy quality, fit, style, suitability for your occupation or recreation. A

CUSHION FRAME BICYCLE

is not merely a bicycle. It is Comfort, Toughness, Efficiency, Durability, and is

Always at Your Service

- "Cleveland"
- Massey "Silver Ribbon"
- "Brantford"
- "Perfect"

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Canada Cycle & Motor Co., Ltd.
Toronto

For Spraying

Fruit Trees, Shrubs, Bushes and Plants, there's nothing to equal



EUREKA COMPRESSED AIR FOUNTAIN SPRAYER

Requires but one pumping to empty entire contents of tank. Automatic lever valve stops flow of liquid while going from one plant to another. Easy, light, compact, tested to stand 5 times the pressure required to expel liquid. Two nozzles, with hose attachment for spraying small trees. Write for catalogue. **THE EUREKA PLANTER CO. Limited, Woodstock, Ont.**

160 Acres of Land for the Settlers

Large areas of rich agricultural lands, convenient to railways, are now available for settlement in Northern Ontario. The soil is rich and productive, and covered with valuable timber.

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The Director of Colonization, DEPARTMENT OF AGRICULTURE, TORONTO.

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NEW PATENTED LOCKSTITCH AWL
Sews Shoes, Harness, Suggy Tops, Canvas, Grain Bags, Anything. Sells at eight. Astonishing low price to agents. Big profits. To show it means a sale. We want a few good, live hustlers in each county. Splendid opportunity to make big money. No experience needed. Write quick—now—for terms. A postal will do. Send no money.
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For Sale: Pure-bred Holstein Bull
18 months old; bred right; will make a show animal.
S. J. Lammiman, Curries P.O., Ont. (OXFORD COUNTY)

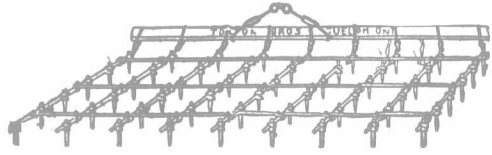
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High-grade Steel Harrows

Section and Flexible All-Steel Harrows with an unequalled record. Pre-eminently the most efficient, strongest and longest-wearing Harrows ever manufactured is our unprecedented guarantee. Send to-day for descriptive circular furnishing the facts. Address: Dept. F.

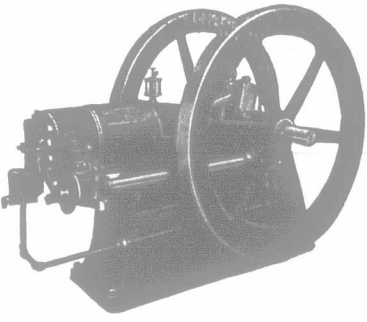


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BARRIE ENGINES

RUN RIGHT

You can rely on the Barrie Engine to do its work right. Practically runs itself, requiring no expert attention. Three H.-P. Engine shown in illustration is very popular with farmers. It's all ready for you to start it going soon as you get it. Mounted on skid, with battery box and all connections made. Write for descriptive catalogue to



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ONTARIO DISTRIBUTORS FOR
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One of Tens of Thousands

Not a miracle. No home protected as this one is ever *was* destroyed by lightning. It is made safe by

The DODD SYSTEM of Lightning Protection

How About Your Home?

Are you still taking chances? Can you afford to risk the lives of your dear ones and your property, when you can insure their safety for a small sum of money invested once in your lifetime?

You insure against fire to receive compensation in case of loss. Safety is better than compensation. And remember, there is no compensation for life taken by lightning.

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Get safety from lightning and fire insurance, too. They go hand in hand. Get both for the cost of one. Lightning causes nearly all country fires. The Dodd System controls and prevents lightning.

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Benjamin Franklin
Originator of
Lightning
Control.



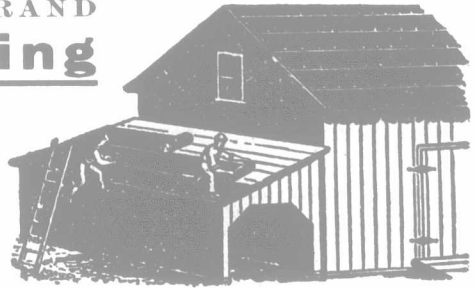
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Who Perfected
the Dodd
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Do You Want the Cheapest and Most Durable Roofing?

USE DURABILITY BRAND Mica Roofing

For steep or flat roofs; waterproof; fireproof; easily laid. We pay the freight on all orders of five square and over to any railroad station in Ontario or Quebec. Send stamp for sample, and mention this paper.



Hamilton Mica Roofing Co.,
101 Rebecca St., Hamilton, Can.

POTASH MEANS PROFIT

when employed judiciously in conjunction with the required amounts of Phosphatic and Nitrogenous Fertilizers. POTASH may be obtained in the highly-concentrated forms of

Muriate of Potash and Sulphate of Potash

from the leading fertilizer dealers and seedmen.

Before purchasing be sure to obtain copies of our Illustrated Bulletins, which will instruct you HOW TO PURCHASE AND USE FERTILIZERS ECONOMICALLY.

The following VALUABLE BOOKLETS will be mailed FREE to any reader of this paper: "Artificial Fertilizers: Their Nature and Use." "Farmer's Companion." "The Potato Crop in Canada." "Fertilizing Orchard and Garden." Etc., etc.

The Dominion Agricultural Office of the Potash Syndicate
1102-1105 Temple Building, Toronto.

Is Your Barn Right Inside?

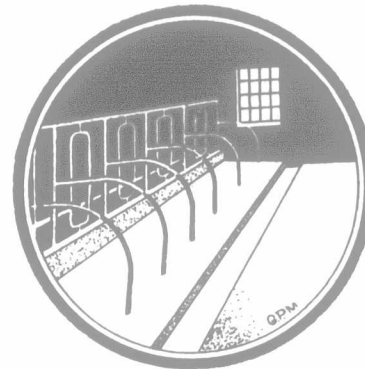
For the sake of appearances, and for the good of the barn, it is important to have it nicely painted on the outside. But for the sake of profits, and the health of the cows, it is far more important that your barn be



Equipped Right Inside.

To have it just right for the complete Cleanliness, Comfort and Contentment of the cows means that you must use

BT SANITARY BARN EQUIPMENT



BT Stalls are the only ones giving the cow absolute freedom of movement and positive protection, the only ones equipped with the **Aligning Stanchions**, which line up cows of all lengths to the gutter, behind; **Automatic Self-Cleaning Mangers**, providing a separate compartment for each cow, so that she may feed according to her individual needs; **Sure-Stop Swinging Post**, which prevents the cow from putting her head in the wrong place in entering the stall.

Every farmer who wants increased profits should send this coupon for our New Catalogue. It is free.

BEATTY BROS., 1002 Fergus, Ont.

Gentlemen,—Please send me free, as per offer, your catalogue and information on Stable Construction.

If you want a hay track or litter carrier, we will send you, as well, information and prices on these goods.

How many cows have you?

Do you contemplate remodelling?

If so, when?

Will you want a hay track?

Will you want a litter carrier?

NAME

Post Office

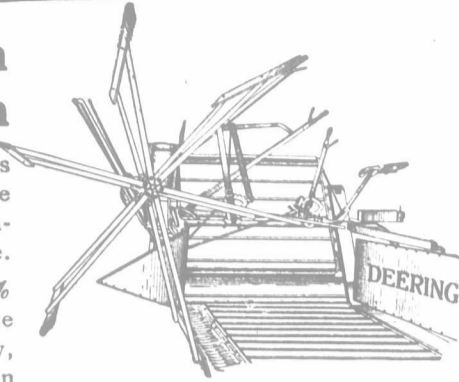
Province

SAVES Down and Tangled Grain

On the Deering Binders the guards are placed so that the machine can be tilted to cut close to the ground without pushing trash ahead of the knife.

This is why you can make a 100% harvest with a Deering Binder. The reel can easily be adjusted high, low, forward, or backward, to save grain in all conditions—short, tall, standing, down, or tangled. It can be shifted quickly to push very short grain and green undergrowth from the guards to the platform canvas, saving the time and annoyance of stopping frequently to clean the guards.

The Deering third packer, reaches up close to the elevator and pulls the grain down to the other two packers, preventing the grain from lodging there. The shape of the needle and breastplate is such that straws are not pulled through to the bill hook. This also prevents clogging at this point.



The third discharge arm on Deering Binders is very effective in throwing out the bound sheaves, and in addition to this it assists in separating the tangled grain of the bound sheaves from the unbound grain on the binder deck. The binder shifter lever, directly in front of the driver, is convenient to operate.

There are many other features of Deering Binders which you ought to know about. The Deering line of haying machines and tools is also well worth your consideration. The Deering agent in your town will tell you all the facts.

If you prefer, write direct to the nearest branch house for catalogue.

EASTERN CANADIAN BRANCHES: International Harvester Company of America at Hamilton, Ont.; London, Ont.; Montreal, Quebec; Ottawa, Ont.; St. John, N.B.

INTERNATIONAL HARVESTER COMPANY OF AMERICA
Chicago (Incorporated) USA

I H C Service Bureau

The Bureau is a center where the best ways of doing things on the farm, and data relating to its development are collected and distributed free to every one interested in agriculture. Every available source of information will be used in answering questions on all farm subjects. If the questions are sent to the I H C Service Bureau they will receive prompt attention.



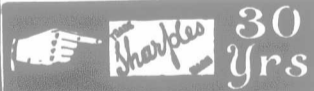
What Others Are Discarding Will Not Please You. All Other Kinds of Cream Separators Are Being Rapidly Discarded For SHARPLES DAIRY TUBULARS



That is because Tubulars are built on the latest principle of construction—the only known principle which does away with the many disks, or other parts, and the many disadvantages of other separators. This principle is patented and cannot be imitated. That is why other separator makers still use the old principle we abandoned over ten years ago.

Dairy Tubulars produce twice the skimming force of others and therefore do not need or contain disks or other complicated inside parts. Skim faster and twice as clean as others. Repeatedly pay for themselves by saving cream no others get. Wear a lifetime. That is why Tubulars are The World's Best and are replacing all others.

Guaranteed forever by the oldest separator concern on this continent. In world-wide use many years. The manufacture of Tubulars is one of Canada's leading industries. You can afford a Tubular, for it lasts a lifetime. But you cannot afford a "peddler's" or other inferior machine which not only repeatedly loses the cost of a Tubular, but lasts about a year on the average. Our local representative will show you a Tubular. If you do not know him, ask us his name. Write for catalogue No. 193.



THE SHARPLES SEPARATOR CO.
Toronto, Ont. Winnipeg, Man.

Standard Wire Fence

Here's the Fence That is all Steel—

Steel wires, steel locks, steel posts. Standard Woven Wire Fences all No. 9 hard steel wire, well galvanized. "The Tie That Binds" is hard, smooth steel that holds uprights and running wires absolutely secure without injury. Standard Patent Posts are 12 gauge steel, bent at right angles, and so constructed that wires are held without staples. Let us tell you a lot of things about the Standard Wire Fence and our Metal Gates of Galvanized Tubing. Our books are full of fence facts. Write for the copies and sample lock.

THE STANDARD WIRE FENCE CO. OF WOODSTOCK, LIMITED, Woodstock, Ont. and Brandon, Man. 18

Vanco

Lime Sulphur Solution

Means Big Fruit And Big Prices

You have got to spray the fruit trees to get any kind of a crop. The most effective spray means the biggest crop and the biggest profits. **VANCO LIME SULPHUR SOLUTION** is a thoroughly reliable fungicide.

It is a clear liquid—no sediment—free from small particles—sprays easily and does not clog the nozzle. You could not possibly get a greater amount of Sulphur in Solution than you get in the "Vanco" Barrel. This is the Spray to use for San Jose Scale, Aphid, Scab, Blight, Mildew and many other parasites and fungi that ruin trees and fruit.

VANCO LIME SULPHUR SOLUTION is better than any home-made spray, because always of the same strength and uniform quality. Specific Gravity stencilled on every barrel. One barrel makes 12 barrels for spring or 40 for summer spraying.

VANCO Lead Arsenate

Kills All Chewing Insects

Safest and surest spray for Apple Worms, Codling Moths, Potato Bugs, Asparagus Beetle and other leaf-eating, fruit-destroying insects. More effective and more lasting than Paris Green—safer to handle—easier to spray—sticks longer—strength guaranteed—NEVER BURNS. Made in Canada. This insures standard quality at lowest prices, because there is no duty to pay on it.

Write for prices and free copy of our new book on sprays.

FERTILISERS—We also sell Nitrate of Soda, Muriate of Potash, Sulphate of Potash and Acid Phosphate.

Chemical Laboratories Limited
126-136 Van Horne Street, TORONTO.



Paints for Everything on the FARM

The successful farmer could no more have a modern farm without paint, than he could raise a bumper crop without modern tools to till the soil.

There is a **Martin-Senour Paint** for everything on the farm, from the roof of the house to the side of the barn, and they make any farm look more modern. It is remarkable how

Martin-Senour Paints

improve a place, and everything paintable on the place; and it is surprising to the man who does not know what a wonderful money-saver paint is. Tools and machinery last longer when protected with a good coat of paint—and they look better, too. As a purely business proposition, money spent for **Martin-Senour paint** is like money put into the savings bank—it pays compound interest by prolonging the life and usefulness of every painted thing on the place.

Martin-Senour Paints are best because they are purest. We want to give you a can free to prove that. Cut out the coupon, present to our agent, and get the can—if no agent near, send coupon to us, and we will see that you receive a can, and a copy of our Farmers' Book, "How Paint Helps the Farmer Get More Profit." Write today.

The Martin-Senour Co., Limited
Montreal

A Can of Paint FREE

This coupon entitles you to a free can. Be sure you get it.

COUPON

Present this coupon to any Martin-Senour Dealer, and receive free a half pint sample can of RED SCHOOL HOUSE PAINT To Dealer—You are authorized to honor this coupon when presented. The Martin-Senour Co., Limited

FREE STYLE BOOK FOR 1911 OF "Quality Line"

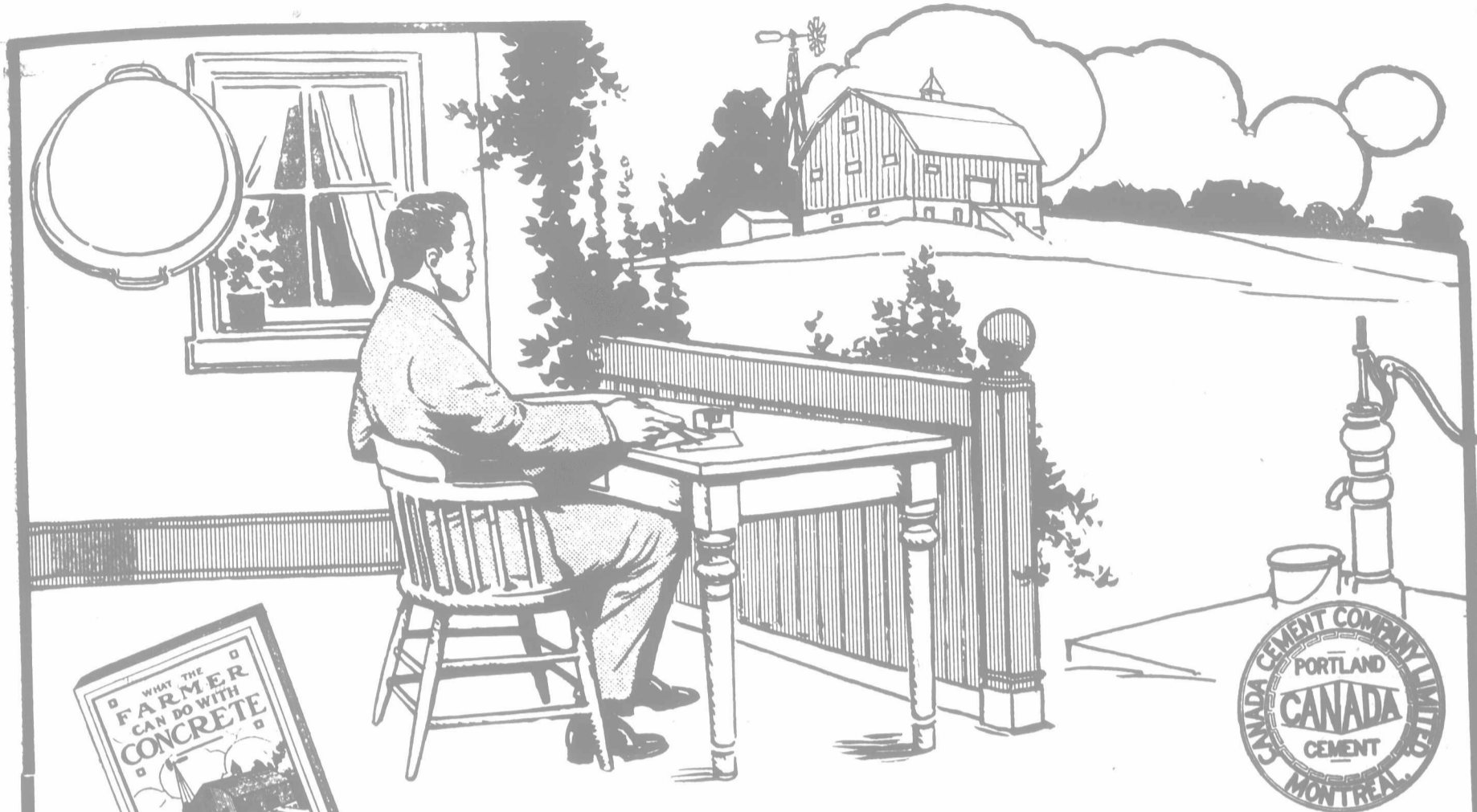


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SEVENTEENTH YEAR OF SELLING DIRECT TO THE USER.

Our Catalogue will help you to choose just the Vehicle or Harness you require, and SAVE YOU MONEY. It describes and pictures many styles, gives prices, freight paid, and fully explains our method of Selling Direct and saving you the Middlemen's Profit. Remember, we pay the freight in Ontario and Eastern Canada. The Catalogue is Free, for the asking. Send for it To-day.

INTERNATIONAL CARRIAGE CO.,
Dept. "A," Brighton, Ontario.



Send for this free book

\$3,600 in Cash Prizes for Farmers

Tell Us How You Did It

You may win a prize by doing so

SUPPOSE your friend Bob Wilson, on the next concession, "pulled up" at your front gate on the way back from market and asked about that silo or barn foundation you built, you would be glad to tell him, wouldn't you? And it wouldn't take you long, either, would it? And, as a matter of fact, you'd find as much pleasure telling him as he would in listening—isn't that right?

First you would take him over to view the silo or barn foundation. Then you would start to describe it—its dimensions—the kind of aggregate used—the proportions of cement used—number of men employed—number of hours' working time required—method of mixing—kind of forms used—method of reinforcing, if any—and finally, what the job cost. So that by the time you finished, neighbor Wilson would have a pretty accurate idea of how to go about building the particular piece of work which you described.

Now couldn't you do the same for us, with this difference—that you stand a good chance of getting well paid for your time?

In Prize "D" of our contest, open to the farmers of Canada, we offer \$100.00 to the farmer in each Province who will furnish us with the best and most complete description of how any particular piece of concrete work shown by photograph sent in was done. The size of the work described makes no difference. The only important thing to remember is that the work must be done in 1911 and "CANADA" Cement used.

In writing your description, don't be too particular about grammar or spelling or punctuation. Leave that to literary folk. Tell it to us as you would tell it to your neighbor. What we want are the facts, plainly and clearly told.

Sounds simple, doesn't it? And it is simple. And surely

it is well worth your while when you think of the reward in view.

Now sit right down, take your pen or pencil—fill out the attached coupon—or a post card if it's handier—and write for the circular which fully describes the conditions of this, the first contest of the kind ever held in Canada.

Every dealer who handles "CANADA" Cement will also be given a supply of these circulars—and you can get one from the dealer in your town, if that seems more convenient than writing for it.

Contest will close November 15th, 1911—all photos and descriptions must be sent in by that date, to be eligible for one of these prizes. Awards will be made as soon as possible thereafter. The decisions will be made by a disinterested committee, the following gentlemen having consented to act for us, as the jury of award: Prof. Peter Gillespie, Lecturer in Theory of Construction, University of Toronto; Prof. W. H. Day, Professor of Physics, Ontario Agricultural College, Guelph, and Ivan S. Macdonald, Editor of "Construction."

Having decided to compete for one of the prizes, your first step should be to get all the information you can on the subject of Concrete Construction on the Farm. Fortunately, most of the pointers that anyone can possibly need are contained in our wonderfully complete book, entitled "What the Farmer Can Do With Concrete." A large number of Canadian farmers have already sent for and obtained copies of this FREE book. Have you got your copy yet? If not, you'd better send for one to-day. Whether you are a contestant for one of our prizes or not, you really ought to have this book in your library, for it contains a vast amount of information and hints that are invaluable to the farmer.

Fill in coupon and mail to us.

Canada Cement Company, Ltd., Montreal

Please send full particulars and book.

Name.....

Address.....

Not What You Earn But What You Save

is the measure of your success. Small earning power is often more than balanced by a habit of saving. In the struggle for independence the man who saves—even a little—is far ahead of the better-paid man who saves nothing.

Be Independent

Determine to save a little steadily. It demands far less self-denial than you may imagine. And the accumulation of

Compound Interest

increases your savings more rapidly than perhaps you have thought. You can open an account in this old-established, strong, safe institution with one dollar or more.

*Paid-up Capital and Reserve Fund,
\$2,050,000.*

Ontario Loan and Debenture Co.

Dundas St., corner Market Lane,
LONDON, ONT.

FARMERS, FRUIT, AND VEGETABLE GROWERS



WHY ARE YOU IMPORTING PHOSPHATE AND AMMONIA WHICH IS A BY-PRODUCT OF YOUR FARMS OF WHICH YOU ARE EXPORTING MANY THOUSAND TONS ANNUALLY BONES AND WHICH CONTAIN LARGE QUANTITIES OF PHOSPHORIC ACID AND AMMONIA

KINDLY ANSWER THE ABOVE

PURE BONE MEAL IS THE CHEAPEST FERTILIZER. THIS PLANT FOOD IS ALL FROM OUR CANADIAN SOILS AND SHOULD ALL GO BACK SEND FOR PRICES, ETC.

THE W.A. FREEMAN CO. LIMITED
HAMILTON, CANADA

FOR OUT DOOR WORK IN WET WEATHER

NOTHING EQUALS



TOWER'S FISH BRAND

WATERPROOF CLOTHING

TO KEEP YOU DRY.

Made for hard service and guaranteed waterproof.

Best Dealers Everywhere.

TOWER CANADIAN OILED CLOTHING CO., LTD.
Toronto, Canada.

Agents are Coining Money

Selling this Combination Tool. Sells at night. Farmers, farmers sons and others having time at their disposal this winter should write to-day for our Agents' offer.



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ELORA, ONTARIO.

PLEASE MENTION THE ADVOCATE.

A CANADIAN SCHOOL FOR BOYS.

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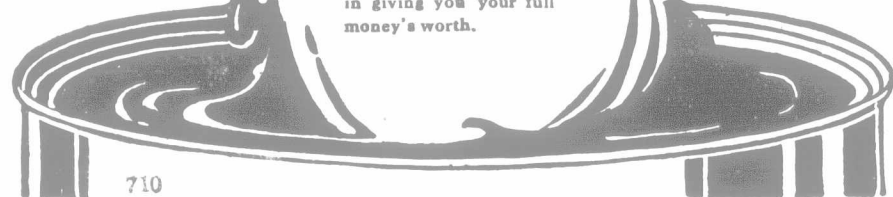
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Vol. XLVI.

LONDON, ONTARIO, APRIL 27, 1911

No. 970

EDITORIAL.

Manitoba now follows Saskatchewan's example by inaugurating an alfalfa campaign.

"All I know of Canada is that the best people of my constituency are moving there."—[Hon. Champ. Clark, U. S. Congress.]

Last year, the farm fields of Canada produced crops valued at \$507,000,000; but, had all been brought up to the standard of the best, those crops would have represented \$500,000,000 more. By more thorough tillage this spring, will every reader of "The Farmer's Advocate" do his share towards this doubling process?

The lure of wages, observes Dr. Jas. W. Robertson, takes the fourteen-year-old boy out of the public school. Serving no apprenticeship, he gets into a blind alley, and perhaps drifts into town to drive a delivery wagon or be a messenger boy. At eighteen years, he is too big for his job, and graduates on to a street car, and there, ten chances to one, he sticks.

One new business creates another. There are about 350,000 automobiles in use in the United States, and the risks to life, limb and property from motoring are such that four forms of automobile insurance have developed: First, on account of personal injuries; second, property losses to others; third, collision insurance; and fourth, fire and theft. Some car-owners carry all four forms of insurance.

Acknowledging a repeat order for lime-sulphur, one of the two companies advertising this material in "The Farmer's Advocate," regrets that it is unable to catch up with any orders dated April 6th and later, adding this encouraging sentence: "The good work that you have been doing towards educating farmers and fruit-growers has made the demand for spray chemicals this year over four times what it was last year, at least so far as we are concerned."

The tide has turned. Not only is there a large immigration of American farmers into our Western Provinces, but numbers of them are locating in Western Ontario. A few days ago, two of this class, having thoroughly looked over a farm of 225 acres near London, were prepared to offer \$18,000 for it. They had sold their own property in the States for \$35,000. The owner had, however, some time before concluded a deal in regard to the farm. The lawyer who gave us this information said that these gentlemen would in all likelihood purchase in an adjoining township, and he hoped they would, for they were of a fine type.

Hiram Pettit, a brother of Morley Pettit, Provincial Apiarist, O. A. C., Guelph, writing the Belmont (Ont.) Times from his home in California, where he is engaged in growing oranges and grapes, says: "Do you know that Dorchester Township, Ont. (where Mr. Pettit was formerly engaged in farming) is just as good an apple country as the far-famed apple districts of Washington and Oregon? Well, it is; and if I were a younger man, with the knowledge I now have of fruit-growing, I would not be afraid to set out an apple orchard of 50 acres on the 8th concession of South Dorchester, and in fifteen years make a fortune out of it."

The Spring Deluge.

Saturated soils, swimming fields, and transient torrents, sweeping away good surface soil to enrich some distant river bottom, repeat again the lesson of the tile and surface drain. Nature does not weary in her admonitions. If we did not heed last year, she tells us again in the spring of 1911, and will give us another object-lesson in 1912. Almost invariably, the early-sown grain yields by far the best crops. That is conceded, and yet we postpone putting down the tile drain, thus losing probably eight or ten days in getting upon the land, and bushels galore in the harvesting. In a waterlogged condition, the soil is cold and stiff, frustrating our efforts to prepare a proper seed-bed in which the grain will have a chance to germinate and develop. Another pressing reason for attention to drainage is the increasing practice of spreading manure upon the fields in the winter season, in order to save labor and avoid the wastes of barnyard heating and leaching. Even on fairly level fields, it is not reassuring to see the roughage of the stable manure floating about like an ark waiting for the subsidence of the waters. As a rule, those who practice this system wisely avoid spreading the manure where there are natural runways, or on hillsides. It being no uncommon occurrence for a tile drain to pay for itself by the increased crop in one year, surely, with so many other good reasons for doing the work, and adding so much to the comfort of spring operations, and the saving of "wear and tear" to horses and implements—surely 1911 will witness the prosecution of a record campaign in Canadian drainage.

Neglected Opportunities.

Federal and Provincial Departments of Agriculture in Canada provide for the enterprising agriculturist many valuable services that should be taken advantage of more generally than they are. All one need do to become acquainted with the opportunities open to him is to read the agricultural papers and the official Departmental reports.

Taking the Dominion service first, we have, for example, a chemist at the Central Experimental Farm who will analyze samples of water from farm wells free of charge. The Seed Laboratory will make examination of seeds for purity, and, in case of doubt, will make germination tests, as well. The Dairy Division of the Dominion Department will supply, free of charge, forms for the keeping of individual cow records, a service inaugurated by the Agriculturist of the Central Experimental Farm. Any farmer who wishes to have his cows tested for tuberculosis will be supplied through his veterinarian with tuberculin from the Veterinary Director-General's Branch, if the owner will agree to the conditions laid down. Coming to the Provincial Department, we note first that the Ontario and Nova Scotia Agricultural Colleges are sending out, at a quite nominal charge, nitro-culture for the treatment of legumes. The Ontario College has also been developing a staff for the free drainage survey of privately owned farms, the only cost to the owner being travelling expenses, at a cent a mile, and board of the surveyor.

In addition to these forms of assistance, all the Provincial Departments, as well as the Federal Department, have considerable staffs of expert teachers and investigators, any of whom will cheerfully answer sensible correspondence, often giving information of the most valuable character.

Every one of the services mentioned should be utilized widely by Canadian farmers. In this, as

in other matters, we practice what we preach. We have obtained from Guelph enough nitro-culture to treat two bushels of alfalfa seed, at a total cost of 50 cents. We have applied to Guelph for a drainage survey of our farm. We are obtaining from the Dairy Commissioner's Branch printed forms for the keeping of milk records. Our grass and clover seed have been purchased after report from Ottawa upon samples obtained and submitted. We are never backward in asking for a bulletin we want, or, if necessary, consulting public servants concerning points in their respective spheres about which we wish information not otherwise obtainable. These services are established to be used. The more widely they are used, the better for Canadian agriculture, and thus, indirectly, for Canadian prosperity in general. No one need feel under any obligation in availing himself of help from such sources. Rather, he may have the consciousness of knowing that, by improving his opportunities as a citizen, he is contributing to the welfare of the whole community. Take cheerfully of the help and information freely on tap.

Bovine Tuberculosis.

This dread disease is among our cattle. There is no sense in shutting our eyes to this; it is a fact. The evil is increasing, rather than declining. Just how prevalent it is, and what measures should be taken in regard to it, are problems that should be faced and solved. The possible menace to public health from the use of tuberculous beef, or the milk from tuberculous cows, while in some quarters overrated, is not to be ignored, and the prevalence of tuberculosis in hogs is caused almost wholly, if not altogether, by following diseased cattle or by being fed their milk. The question of the future of Canada as a producer of stock cattle is also involved.

Too often it has been the case that an animal suspected of having the disease has been treated like the counterfeit money which the good deacon abhorred, and got rid of as quickly as possible. The application of the tuberculin test to animals pronounced diseased by experts has been known to be resisted on one pretext or another—but really for fear of the financial loss that might ensue—until death from tuberculosis has supervened. There is some excuse for such conduct, in view of the fact that the owner himself has to bear all the loss, and it will be repeated so long as that is the case.

But is it not time that many of our more wealthy farmers and stockmen should take up this matter individually. Public spirit shows itself in being ready to sacrifice self-interest for the public good. The International Commission on the Control of Bovine Tuberculosis, whose excellent report can be obtained free from the Veterinary Director-General, Ottawa, say in this report that "The owner's co-operation in this work is a very essential feature of this great task." But they go further, and state that "It is a well-known fact that any voluntary method of suppression by the herd-owners themselves would bring about better and quicker results than when compulsory measures are enforced upon them." Loyalty is often loudly proclaimed; here is a way in which it can be quietly practiced.

A significant inference can be fairly taken from the report to which we have referred. It is to this effect, that, before the importation of well-bred cattle from Europe, for the purpose of improving the native stock of the country, tuberculosis among cattle was unknown here. Following the statement from which the above infer-

THE FARMER'S ADVOCATE AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL
IN THE DOMINION.

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JOHN WELD, MANAGER.

Agents for "The Farmer's Advocate and Home Journal,"
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LONDON, CANADA.

ence is taken, and in view of the sources from which infection has come in the past, the report says that, in efforts to detect the cases of tuberculosis that exist to-day upon the farms of the country, attention may first of all be directed toward all herds of pure-bred cattle, whether of beef or dairy type; also herds where improved stock has been used for grading-up purposes. "Next in order should come all dairy cattle."

Is it unfair to say, in view of these opinions, that tuberculosis is an indoors disease? The other day the writer called at the city home of a young couple, which they bought new about a year ago. It is quite luxuriously furnished, and very snug. But the stuffy odor of the place, entirely unnoticed by its owners, of course, was proof that if it had not been quite so snug, the house would have been more healthful. Pity 'tis, but it appears to be true, that intensive breeding, feeding and care, requiring much effort and thought on the part of stockmen, lower the stamina of cattle and render them fit subjects for contracting and disseminating tuberculosis. The lack of ventilation in many dairy stables during March and April is simply deplorable to those who have thought for the health and sensations of the cows. It is more than questionable whether the fear of a lessened milk flow from a cool in-draft of air does not result, in the long run, in a much more serious lessening of production.

A section regarding "Sanitation" from the report, may well be quoted entire: "In the eradication of tuberculosis, it should be kept in mind that, in addition to protecting the animals against exposure to tubercle bacilli, it is desirable to make them as resistant to infection as possible. This can be done by stabling them in clean, disinfected and properly-lighted and ventilated barns, giving them abundant clear water and nutritious food, a sufficient amount of daily exercise in the open air, and attending generally to those conditions which are known to contribute to the health of animals. The daily removal of manure from stables, and water-tight floors and good drainage in stables, are urgently recommended. Young stock, particularly, should be

raised as hardy as possible, and should be accustomed to liberal exercise and living in the open."

The Power of Spring.

Springtime comes again with uplifting force. It quickens nature and it quickens men. Truly has it been said that the silent forces are the mightiest—unseen, yet all-powerful. The thunderous plunge of Niagara is impressive, but it is nothing to the inscrutable hydro-electric current that lights cities and drives the wheels of mills two hundred miles away. We stand amazed before the storm, and when we talk of farm power we think of the steam traction engine, the wind-mill, or the gasoline motor; but if we would see real, magnificent force, the eyes must be opened during these spring days, when some mystical energy expands buds into flowers, unlocks the throats of every song-bird, enwraps with garments of green the gray twigs of ten thousand trees, whitens the fruit bushes in every township, drives up the grass on a thousand hills and pasture fields, recarpets the alfalfa plots, and the brown areas of winter wheat, and unfolds into living plants, to feed us for another year, the germs of ten million kernels of oats and corn, or helpless-looking garden seeds which, by faith, the trusting housewife commits to a mark in the soil in hope of a speedy resurrection. And Nature does not fail her. Spring is eternal. Life is in that brown husk; moisture and food are at hand, just waiting the generating warmth of the solar dynamo, 95,000,000 miles away, which makes no noise in lifting up the new world of 1911.

HORSES.

The keen demand for good young mares, and the noticeable premium in price they command, as compared with geldings of equal weight and quality, indicate that Canadian farmers at last have awakened to the wisdom of keeping the good young mares at home to supplement the farm revenue by breeding a colt or two each year.

All the four horses purchased for "The Farmer's Advocate" farm are young mares of 1,400 pounds, or near it. With average good fortune, it is hoped to raise two or three foals per annum. Effort may be made to breed a couple of the mares to foal in autumn.

Is the horse business liable to be overdone in the near future? It is rather hard to say. Whether the present range of values will long continue, may be a debatable point. Evidently, demand has been stimulating breeding of late. However, there would still be money for the farmer in breeding the right class of draft horses at somewhat lower prices than good ones now command.

Retention of the Meconium in Foals.

The question is sometimes asked whether castor oil or linseed oil should be administered to foals that are constipated when about a day to a week old. One of the best veterinary advisers in Canada is emphatic in saying that the common practice of giving purgative medicines in cases of this kind cannot be too highly condemned. What is spoken of as constipation is, in newly-born foals, really the retention of the meconium. This is a substance which fills the bowels more or less at birth, and is in the form of lumps or balls of a dark, almost black, color, and of about the consistency of putty. Under normal conditions, the foal, shortly after birth, will be noticed evacuating a quantity of these little black lumps, and the evacuation will be repeated at intervals for about twenty-four hours, after which the color and character of the feces change to a yellowish mass of a sticky character. Unfortunately, this normal evacuation does not always take place, and the meconium is retained. In such case, the proper treatment is not the giving of purgatives. Instead, the nail of the forefinger should be cut short, and it should then be oiled and carefully inserted into the rectum, and all the lumps that can be reached removed. An injection of warm water and linseed oil should then be given, and the operation repeated every few hours until the feces become yellow, when danger is passed. It is good practice to mechanically remove in this way the meconium in all foals, without waiting for symptoms of retention.

Should Horses Drink at Will?

We have this spring built a horse stable, and in front of horses' mangers is a long cement trough for watering horses. Horses can drink from stall. The trough has a lid to keep out dirt, which can be raised to let horses drink. There are also doors in front of horses which raise and fasten while feeding horses. Do you think it would be advisable to leave doors that horses may drink at will, or should they be watered at certain times? We all know it is natural for horses to drink after eating, but many condemn this, fearing the water has a tendency to wash feed out of stomach. What is your opinion? I remember once reading that in Denmark (I believe it is) it is customary to let horses have water while feeding, and it was claimed that broken-winded horses were practically unknown, and the fact was attributed to this. F. H. W.

Ans.—We should not consider it necessary, or even desirable, to have provision for the horses to drink every time they took a notion. These automatic watering devices are usually attended with disadvantages. Our own practice is to feed hay first thing, then attend to stables, grooming and harnessing, then water and feed grain. We prefer not to water immediately after feeding grain.

Preventing Sore Shoulders.

A correspondent of the Breeders' Gazette, as the result of ten years' experience, strongly recommends, for preventing sore shoulders, lining the sweat-pad, or collar that comes next the shoulder, with pure white oil-cloth. Put the smooth collar of it next the shoulder, lining the pad or collar all through, and sewing it in around the edges. The collars can be washed off and kept clean.

LIVE STOCK.

Stable Hints.

A card and brush should be kept and used in every cattle stable. * * *

Five minutes will suffice to drive spikes in the walls to hang dung forks on. * * *

The stable will look neater with utensils carefully hung up, time will be saved by having a place for things, and an ugly accident may possibly be avoided. * * *

Regularity in the order, as well as the hour of milking, feeding and watering, is desirable. * * *

Comfort pays. * * *

Harsh words tell in the milk flow or the daily rate of gains. * * *

You know how it feels to lie on a lumpy straw tick or mattress. A soft, even bed is appreciated by the cow or steer, as well as by yourself. * * *

Littered alleyways spell waste, and bespeak the slovenly farmer. * * *

Do not forget to put a few oats in the calf's feed-box. Calves will eat whole oats about as soon as anything, and perhaps nothing is better for them, especially when the milk supply is short. * * *

Do not commence too early to figure the cost of the calf's daily feed of milk. You may get cheaper gains on cheaper feed, but you will have a cheap, runty calf on which subsequent feeding will not tell as it should. All babies of mammals require milk, and cannot get the start they should without a fair amount of it. It is extreme penny-wisdom to stint a young calf or colt or pig for the sake of a few quarts of milk. Immediate cash return is not everything. Look ahead. * * *

There are a large number of scrawny cows being raised in the cheese sections of Canada for the lack of a little good calf-feeding. * * *

Do not shrink from the tuberculin test. Welcome it as the sunlight, and utilize discreetly the knowledge it supplies. * * *

To supplement skim milk in calf-feeding, nothing better than a handful of flax seed has been discovered. It may be simmered to a jelly, or merely scalded at feeding time.

New Brunswick Stock-breeders' Convention.

With a view of providing better facilities for the agriculturists of New Brunswick to acquire pure-bred stock, the Provincial Department of Agriculture has decided to inaugurate a series of auction sales, to be held periodically at various places in the Province, where such stock can be assembled in such numbers and variety as will make it worth the while of farmers to attend, with some degree of assurance that they will be able to meet with the class of stock they need. With the view of further assisting in this project, the Government will from time to time make importations of different breeds of stock, which will be offered for sale at these auction sales. The first of these sales was held at Fredericton on the 12th inst., when about forty animals, chiefly Shorthorn and Ayrshire cattle, and some draft horses, were offered. Buyers attended in large numbers, and the bidding was spirited, prices ranging from \$190 for cows, down to \$60 for six-months-old calves, and many more could have been sold at satisfactory prices.

Advantage was taken of the presence of so many prominent farmers and stock-breeders in the city to hold a convention to discuss matters pertaining to the industry, and, in response to the invitation of the Commissioner for Agriculture, a large and influential gathering met in one of the committee-rooms of the Legislative Buildings, under the presidency of Lt.-Col. Campbell, of Apohaqui, President of the New Brunswick Farmers' & Dairymen's Association.

W. W. Hubbard, Provincial Secretary for Agriculture, explained that the chief object of calling them together was to get an expression of opinion as to the best means of promoting the live-stock industry in the Province, as, from the statistics of imports of meat and poultry, it would not seem as though the Province had much of a live-stock industry. Compared with the other Provinces, New Brunswick made but a poor showing. There was a falling off in horses and sheep in the last ten years, though swine had somewhat increased. There had been some little improvement in the later years of the ten, but the Province was not beginning to compare with Ontario, in proportion to population. This was a matter which was capable of being remedied, and he would like an expression of opinion as to the readiest means of going about it. He felt that if the agricultural societies and stock-breeders' associations would take the matter up in earnest, some tangible results would accrue.

W. McIntyre, from Gloucester County, thought increased grants to exhibitions would encourage farmers to raise better stock. He did not know any reason why as good stock could not be raised in New Brunswick as in Ontario, in which case Ontario farmers might come to the Province for good animals, instead of New Brunswickers having always to go to Ontario.

Geo. E. Fisher, of Chatham, said that the improvement of stock-raising conditions was the foundation of successful farming. Mixed farming was what counted, and, in order to be successful in it, a farmer must raise stock. New Brunswick was perhaps better suited for dairy farming than anything else, and the Ayrshire stock which would be for sale was ideal for the purpose. There could be no doubt that Ontario was the greatest agricultural Province in the Dominion, and there mixed farming was the aim of the farmer. What with dairying and sheep and swine raising, there were splendid opportunities for farmers in New Brunswick, and no Province offered better markets for the farmers' produce.

James A. Teller, of King's County, who has just moved into the Province from Ontario, said, from what he had seen of the land in New Brunswick, he felt there was no reason whatever why it should not be as good a live-stock Province as Ontario. The farmers, however, required educating on the subject, and he thought that short courses in judging should be given by competent men. Another thing he thought was that many of the farmers were not good feeders, and good results could not be expected without good feeding. No matter how good the breed, good feeding was half the battle, particularly in this matter of dairy stock. He advocated a much greater use of alfalfa, which thrives very well in the Province. Asked as to the sheep industry, which is Mr. Teller's leading line, he said that there was a profitable market in the Province for sheep-breeders, though he would like to see better prices for wool. He believed in feeding lambs well on in the season, rather than killing them very young. Before making up his mind to settle in New Brunswick, he had travelled over several Provinces in search of a location, and he did not think he had made any mistake in settling in this Province, as the best place for sheep-raising.

Col. Campbell approved of the policy of the Government in arranging for periodical sales of pure-bred stock, and he felt that stock-breeders would have some encouragement to persevere in their efforts when they were able to feel that facilities were to be afforded them for disposing of their stock, instead of having to trust to chance to be able to dispose of it privately.

A. Justican, of Victoria County, thought that much good might be accomplished by exchange of pure-bred bulls among the various agricultural societies. After a bull had been in one district for, say, a couple of years, it would be a good plan to exchange him with another society at a distance, and inbreeding thus be avoided. He also disapproved of killing bulls when they were comparatively young, and said ten years was not too long to keep a good animal in service.

Hon. Dr. Landry, Commissioner of Agriculture, was glad to see so many representative farmers and stock-breeders present, and to hear so many expressions of approval of the Government's policy. He felt that the idea of exchanging stock bulls was a good one, and could be readily carried

breeders in the past; therefore, resolved, that this meeting recommends the Department of Agriculture to arrange for auction sales of such stock, and that this stock be taken from New Brunswick breeders at such times as might be agreed upon, based upon the production figures of the stock, and this offered for sale."

Fresh-air Treatment for Tuberculosis in Cattle.

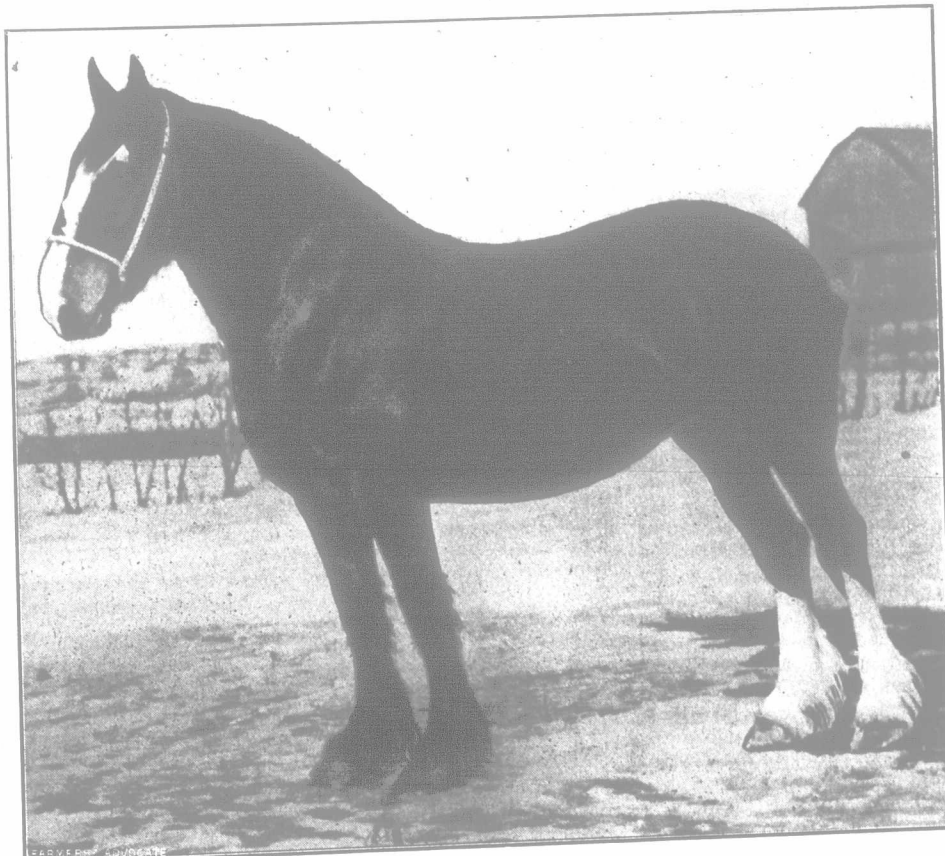
Editor "The Farmer's Advocate":

Recently I read in the Technical World that many fine dairy cattle are being tested for tuberculosis, and when found infected they are killed.

It occurred to me that an experience we had in New Zealand in the early sixties might be of some assistance in stamping out the disease, without destroying so many good heaves. At the time I speak of, beef was scarce, and our supply came from Australia, and nearly every one of them was infected with pleuro-pneumonia. My parents had about 300 cattle in the Wakatip district, which was situated 2,000 feet above sea level. A butcher brought up about 100 head of infected steers, and turned them on the same range as ours. Eight of his cattle died within a few days after, I think because of the change of climate. These eight were buried along with thirteen others that he had shot, owing to their poor condition. The rest, with the exception of nine, which were lost, were butchered and eaten.

It was my duty to go to the range and drive in the cattle as they were needed for butchering, two to four at a time, and I became so used to their actions that when they were coming over a trail across the mountain top I could tell just in what state their lungs would be when the cattle were killed and dressed. The very best of these steers did not weigh over 600 pounds when ready for the market. All of their flesh was bluish, and their lungs were blue and swelled, and some of them had their lungs grown to their ribs. Some were too poor to kill, but a year after being turned onto the range were fat and in good condition. Four-fifths of the cattle killed by the butchers had pleuro-pneumonia, and had had the run of the feeding ground with other cattle. We never knew of a native animal having the disease.

The nine that were lost I found two years later, and helped to butcher them. They were wild as antelope, but dressed over eight hundred pounds. They all showed signs of having been diseased, and had been so far gone that one could see where their lungs had been grown to the ribs; and one was so bad that one lung was entirely gone, only a small, hard



Baroness (imp.) [20270] (23247).

Clydesdale mare; brown; foaled 1907. Imported by Smith & Richardson, Columbus, Ont. Second at Toronto National. First and champion at Ogdensburg, fall of 1910. First and champion at Ontario Winter Fair, Guelph. Second at Ottawa Winter Fair. Sold to W. J. Cox, Peterboro. Sire Cassabianca.

The stock which the Government had imported was as good as was to be procured in Ontario, and, if carefully looked after, could not fail to improve the breed of cattle in New Brunswick. He believed the time would soon come when the farmers would be able to put on the market each year a nice selection of stock, such as would meet with a ready sale. He felt like paying the expenses connected with the sale, and putting all the farmers on an equal footing. If farmers would make up their minds to keep better stock, even if they only began in a small way, the result was bound to be highly beneficial not only to themselves, but to the Province generally. Dr. Landry concluded by announcing the probability of a couple of Shorthorn importations in the near future.



Helping Themselves.

Several other speakers expressed approval of the inauguration of periodical sales, and of the policy of the Government in making importations of pure-bred stock, and the following resolution was unanimously carried: "Whereas, it is desirable to encourage the breeding of pure-bred stock of best quality in the Province of New Brunswick; and, whereas, this business has not proved remunerative to our

lump remaining, yet these cattle were in healthy condition when killed.

There is no doubt in my mind but that the mountain range of the Wakatip district, with plenty of grass, was a sure cure for pleuro-pneumonia. I believe that if the United States Department, instead of killing the cattle, would remove a large herd of diseased cattle to a range in some such country as the head of the Membris

River, in New Mexico, or in the hills to the west of the Pecos River, where they could roam at will in their native elements, with plenty of good grass, it might prove a very instructive experiment. It might not do to turn sound cattle in with them at first, but, after the infected ones had recovered from the change in the climate, I do not think they would transmit the disease to the healthy cattle.

If my theory is correct, it is not likely that the calves would have pleuro-pneumonia, unless confined to the close, filthy stables where these diseases originate. My opinion is that, for the welfare of the cattle-owners, sanitary conditions should be strictly enforced, and animals kept clean, with plenty of ventilation, and a certain amount of cubic feet of pure air to each head of stock. We see such men as Bernard McFadden, of Chicago, and Sandow, of London, both consumptives, who are now amongst the strongest men of the times, and they claim that all that cured them was pure air and exercise. If those two things will do that for men, and it acted as it did to my own knowledge in New Zealand, on cattle, would it not be wise to try my suggestion and see if we cannot save some of these valuable dairy and beef cattle that are being destroyed. I believe that many would get better right here in Alberta's good climate. DAVE COLVILLE.

Alta.

Obstructed Milk Flow.

Editor "The Farmer's Advocate":

Of the many good things published recently in "The Farmer's Advocate," the seasonable series of letters on the common troubles of the cow at this season has been one of the best, and easily worth to any dairyman, particularly, ten times the subscription price. In fact, I would like to say just here that the paper stands in a class by itself. I have found no other farm paper to compare with it in practical value, arising from the fact, no doubt, that its staff are actually men of the farm, and in constant touch with its real problems. Knowing the needs of the stockman, the orchardist, and others, they are on the alert, and, of course, in a position to secure information of the most helpful sort, and readers can do no better service to one another than to contribute of their experience through its pages. That is why I liked the letters on the spring troubles of the cow, and how to avoid them, so far as possible. But these letters prove once more that the Wise Man of old was right when he declared that in a multitude of counsel there is wisdom. There is hardly any limit to what may happen, and no one has a monopoly of experience. So far as I read, none of these writers described an udder trouble just like the one which I noticed recently. The cow was in good health, vigor and condition, and dropped a healthy calf. Though apparently full, the udder and teats showed no sign of caking, nor, for a time, of any inflammation, but the calf could secure only a little milk, and that from one quarter. Hand-milking was equally futile. The cow's secretions were quite natural, but she was given a couple of doses of salts, and the udder was fomented with hot water, and rubbed with vaseline, but no milk could be extracted, and the udder became greatly distended. Finally, by the use of milking tubes, the veterinary succeeded in puncturing a curtain or growth which he said had formed underneath the gland, effectually preventing the milk from coming down into the teat, and, being so confined, was liable to cause septic poisoning. Drawing off the milk relieved the cow, but satisfactory recovery, as far as milking is concerned, is not looked for. Sometimes, it is said that the use of the tubes, persistent bathing, manipulation, and hand-milking, will bring the cow around for one season, but next spring the trouble will recur. In this case part of the udder caked, and the cow "lost her milk." Usually, owners are advised to dry up cows so affected, and turn them off for beef. No specific name was given the trouble in this case, though it was said not to be an uncommon trouble. It may be that other readers could throw light on its cause, and the advice of professionals as to its possible prevention would be appreciated. MILKMAN.

Stables Sucking Calves.

One of our subscribers, T. J. Viveash, being interested in the account of how Geo. T. Nichol reared his calves (having one cow suckle three), which appeared in the issue of March 30th, sent an inquiry to us asking if Mr. Nichol did not have trouble in getting his cows to breed while suckling calves. He had been told that so long as a cow was suckling calves she would not come in heat. The query was forwarded to Mr. Nichol, who answers as follows:

"In answer to T. J. Viveash's inquiry, whether we have any trouble getting cows in calf which are suckling calves, we find, after ten or twelve years' experience, that it is best to keep the calves stabled till the cows are served, which will usually be before the first of July, as some cows will not come in season when the calves run with them. We also think it is better for the

calves to be kept in until after that time, as they get better able to follow the cows, thereby insuring each its share of milk. We use caustic on the calves' horns when they are a week old to prevent their growth, and it may need to be applied twice."

THE FARM.

Fertilizers on Turnips.

Editor "The Farmer's Advocate":

Kindly allow me, through the columns of your valuable paper, to give the results of an experiment I conducted on turnips last season.

Having purchased a small quantity of fertilizers almost each season for the past few years, and many times experimenting with same, I was recommended by a friend to the Potash Syndicate, with whom I might co-operate in an experiment during the season of 1910.

The fertilizers were promised gratis, provided I would use them as directed, and keep a strict account of results obtained, and report same to the Potash Syndicate. This I agreed to do.

An acre of ground was chosen, and divided into three plots of one-third acre each. The plots received an equal application of barnyard manure. Plot 1 was unfertilized; Plot 2 received nitrate of soda, acid phosphate, and muriate of potash; Plot 3 was fertilized with nitrate of soda and acid phosphate. Except in regard to fertilizers, each plot received practically the same treatment. The land was plowed in the fall, and was ready for seeding on 22nd June, about eight or ten days later than the usual time for seeding. The potash and acid phosphate were applied on June 10th; the nitrate of soda was applied on July 15th. The crop was harvested on October 29th and 31st. The season was not a favorable one for turnips in this locality, owing to drouth from August 10th to September 7th, but I consider that 1,038 bushels of turnips of the finest quality would be an excellent yield under favorable circumstances. The actual results are given below:

Fertilizer applied per acre.	Yield per acre, bush.	Increase in yield over unfertilized plot, bush.	Value of increase.	Cost of fertilizer deducted.	Profit after cost of fertilizer deducted.
Plot 1 Unfertilized	767				
Plot 2 Nitrate of soda, 120 pounds Acid phosphate, 480 pounds Muriate of potash, 150 pounds	1,038	271	32.52	13.35	19.17
Plot 3 Nitrate of soda, 120 pounds Acid phosphate, 480 pounds	961	194	23.28	9.60	13.68

The turnips were valued at 12 cents per bushel. From the above results, we find that the increase in yield of Plot 3 over Plot 1 was 194 bushels, and the increase of Plot 2 over the unfertilized plot 271 bushels. The increase of Plot 2 over Plot 3 was 77 bushels, due to the application of 150 pounds muriate of potash.

P. E. Island.

THOS. WIGMORE.

Is Your Water Supply Safe?

Water is undoubtedly the greatest carrier of disease. There is always a definite relation between the death rate in a large city and the purity of its water supply. On the whole, it is safe to predict that those cities having the highest death rates have impure water supplies, while those cities with low death rates are sure to have pure water supplies.

Typhoid fever and intestinal disorders are the diseases most likely to be transmitted by polluted water. Excrements from typhoid patients are teeming with the bacteria which cause that disease. If, by any means, these excrements infect the water supply, that water, if drunk, will probably cause the disease. Typhoid outbreaks, whether on the farm or in the city, can usually be traced to a water supply which had become infected with sewage from typhoid patients.

There ought to be no question about the purity of the water supply on every farm. Unfortunately, a large number of farm water supplies are not safe, and are probably the cause of disease.

The United States Department of Agriculture, in co-operation with the Minnesota State Board of Health, made an exhaustive investigation of 79 carefully-selected typical farm-water supplies in different parts of Minnesota, with these results: (1) Twenty water supplies were good, and 59 were polluted. This pollution was largely due to careless or ignorant handling. (2) Of the polluted wells, 11 were so located that extreme care could not make them safe; while the others, with proper protection, such as good curbing, tight platform, and protection from surface-wash, could be made safe. (3) During the investigation, it was found that 23 farms showed a record of typhoid fever. The water on 18 of these farms was polluted, and was the probable cause of the disease, while on the other farms the cause of the disease could not be definitely located.

How can you tell whether your water supply is polluted or not? The following kind of well is safe: A deep-driven well, with tight curbing and platform, which is raised above the ground at least six inches to one foot. The ground slopes away from the well in all directions, so that no surface water can enter the pit. The well is located as far as practicable from the privy vault—100 feet, preferably more—and an equal or greater distance from barnyards, cesspools, etc.; and the drainage from these places should be away from, and not toward the well.

The following well is apt to be polluted: A shallow-dug well, curbed with rock or other material, with loose platform, allowing dirt and surface drainage to enter the well; located within a few rods of a privy vault, cesspool or barnyard, with the natural drainage from these places toward the well. Even if the natural drainage were away from the well, under these conditions, there would probably still be seepage from the barnyard, etc., into the well.

Make a careful survey of your water supply, and you can probably tell quite accurately whether it is safe or not. Do not send any samples of water to the Chemist of the Experiment Station, because he cannot make such examinations. However, if you are in doubt as to the purity of your water supply, send him an accurate and complete description of your well, and a rough sketch showing the location and distances between the well and farm buildings, barnyards, cesspools, vaults, etc. By means of arrows indicate the slope of land. On the basis of such information, all possible assistance will be given you.—Ralph Hoagland, Division of Chemistry and Soils, Minnesota Experiment Station.

COMMENT BY FRANK T. SHUTT, DOMINION AGRICULTURAL CHEMIST.

On the whole, the statements in this article are correct. There is ample proof as to the great menace to health of an impure water supply, and, though much publicity has been given in recent years to the danger in using for drinking and domestic purposes water contaminated with excretal matter, it is only too true there is still great apathy throughout the country towards this important question. We have too many shallow wells on the farm homesteads, and these, for the most part, situated dangerously near a source of pollution. Seepage and soakage find their way sooner or later into such wells, and the supply is polluted. It is seldom, indeed, that these wells can be made to yield pure water, and the better plan undoubtedly is to abandon them. One safeguard that is of considerable value is, at the outset, to line the well, say, to a depth of 10 feet, with several inches of good concrete. This insures, if surface-washing is kept out, a certain filtration of the water entering the well—a filtration that ought to have a purifying effect. But if there is no pure source available, as a spring or large lake, no doubt the best well is the driven or bored well, thoroughly protected against the entrance of surface and ground water.

It is impossible to say what may be a safe distance for a well from a barnyard, privy or other source of pollution. Drainage matter in some soils travels great distances, and there are many other factors to be considered before an opinion could be expressed as to the probable purity of the water in a well doubtfully placed.

Indeed, the environment of each well must be carefully studied; general statements on this subject are apt to be wide of the truth.

If the well is dangerously near a source of pollution, or there is the slightest doubt about the water, the only satisfactory and conclusive way to ascertain the true condition of affairs is to have an analysis made of the water. Sanitary (chemical) analysis of waters from farm homesteads are made in the laboratories of the Experimental Farm, Ottawa, but it is required that the applicant first obtain a copy of the directions to be followed in the collection and shipment of the sample. This work of water analysis has been carried on since the establishment of the Experimental Farms, and undoubtedly has been productive of much good. Reference to the reports of the Chemical Division will show that a very large number of the waters so forwarded have been found polluted, and many of them exceedingly dangerous. These reports also point out how such waters may disseminate disease in the farmer's family, prove injurious to his stock, and render his dairy products unwholesome and unsafe.

With respect to a recent inquiry regarding the value of the hypochlorite of lime treatment of the water in the water in the well, we think there are practical difficulties which make it a very unsafe and unsatisfactory plan to adopt. If the water were drawn and placed in a vat or tank, which would act as a reservoir, it might be so treated effectively; but the cheapest, the easiest and the most effective safeguard is boiling. This simple method is far superior for the farmer and village householder to any treatment with chemicals. We have advocated it for twenty-five years, and today it stands unequalled as a simple treatment for the destruction of typhoid and allied germs; it must have prevented much disease, and, no doubt, saved many lives. However, my last word is, abandon the polluted well, obtain the very best water that can be procured, and be prepared to spend a good deal of money, if necessary, in the work; be morally certain that the water is unpolluted, and then protect the source. Nothing is more insidious in its action than impure water; few things on the farm are so valuable, as important to the health of the farmer, his family and his stock, as an abundance of pure water. It is something worth paying for.

Surface Treatment for Dust-laying and Road Preservation.

By W. A. McLean, Provincial Engineer of Highways for Ontario.

Dust prevention has long had a recognized place in urban communities of Ontario, the watering-cart in dry summer weather being the remedy commonly applied with moderate success. At best, however, there are intervals when temperature and breeze are too nimble for the water supply, and the man on the watering-cart is deluged with complaints proportionate to the dust that descends on the pedestrians and adjacent lawns. When an adequate service is available, and the driver uses intelligent discretion as to the amount of water applied, the sprinkling wagon is an agreeable means of subduing dust—but very rarely is the right combination of service and intelligence applied to the work, with the result that, as a means of subduing dust, water-sprinkling has not been effective.

The oiling of roads in California, Pennsylvania and other petroleum regions has been a matter of rumor and experiment for some years, but it was not until 1909 that a serious test was made in Ontario, when a residuum of petroleum, with a paraffin base, was used on the streets of Toronto. Vox populi was at once heard in complaint and objection. "The odor of the oil was offensive, and the oiled mud ruinous to paint, clothing and carpets." But the disagreeable odor passed away in a few days. A small quantity of oiled mud or dust was found no more injurious to clothing and carpets than was a large amount of dry dust. The dust nuisance was remedied to an extent unknown before on macadam and earth roads. Citizens no longer inhaled clouds of dust. Continued experience in 1910 in Toronto, and in other parts of Ontario, has confirmed the use of oil as a success, a measure of comfort and sanitation, in which the benefits outweigh the objectionable features.

A new factor, the motor vehicle, has of recent years entered the domain of traffic, and has placed new demands upon the public highway. Ten years ago, traffic on the roads of England had only five per cent. of motor vehicles. The last year 70 per cent. was motor traffic. The number of motor vehicles in Ontario is increasing rapidly, farmers are now among the users, and it is evident that the use of the public highways by this new mode of travel and transportation has tremendous possibilities. Already the motor has brought the dust problem into association with country roads, with attendant discomfort to users of the road, and injury to crops, fruit, lawns and houses.

The scattering of dust by rapid and frequent motor traffic is a serious injury to the road itself, in that the dust is a necessary bonding ma-

terial for the stone composing the road; and when this is removed, the road "unravels," roughens and deteriorates. Present motor traffic in some cases is now demanding dust-laying treatment; and future traffic will, in the writer's opinion, require it upon a considerable mileage of heavily-travelled roads in the Province, as a matter of preserving them from destruction.

Dust-laying treatment may be little more than a palliative by which the dust is prevented from rising, and remains as a cushion coat over the stone. Or treatment may go further, and may provide for a stronger and tougher road surface that will resist wear by bonding and protecting the stone. As palliative treatments may be considered the use of the old sprinkling wagon, of calcium chloride, oil emulsions, and petroleum oils with paraffin base. With the protective treatments may be included the use of asphalt and asphaltic oils, now being so largely tested in the United States, and the several tar treatments adopted as standard practice in England and Scotland.

Calcium chloride in solution is merely an improved method of water sprinkling. A salt with an affinity for moisture, the principal effect of calcium chloride is to retain the moisture of the atmosphere, thus lessening the necessity of so frequent watering. The effect, however, is temporary, and its use is limited.

OILING ROADS.

To oil roads successfully, requires a thorough understanding of the oil used, its constituents, and method of preparation. A petroleum oil is generally employed, but some of these, such as the



A Roadman.

California oils, have an asphaltic base, while those of Ontario and Pennsylvania have a paraffin base. Asphalt is a binder, while paraffin is not, and in an asphaltic oil will destroy the binding properties of the latter. While heavy asphaltic oil, free from paraffin, may be used within the body of the road, or sprinkled over the surface, paraffin oils can be used only by the latter method.

Paraffin oil, such as that used in Toronto, may be sprinkled from an ordinary watering-cart, and on country roads during the past season, crude, homemade distributors, attached to common water-wagons, were made from perforated iron pipe with success. The oil should be applied to the road in warm, dry weather. Two applications early in the season, followed by two or three later, according to the weather, have been found sufficient to keep down the dust, using for the season, on a country road, about 3,500 gallons. About 1,500 gallons per mile should make the first two applications. The cost varies according to local conditions, but has been about 4 cents a gallon, and one cent for applying.

Asphaltic oils may contain a varying percentage of asphalt, up to about 80 per cent. Great care is needed in putting it on the road, to avoid splashing and inconvenience to traffic. Oils with a high percentage of asphalt have to be heated to apply to the road. Special sprinklers are desirable, with the distributors close to the road

surface to avoid splashing. One-half of the road only should be oiled at a time, to prevent inconvenience to users of the road. Immediately, or within a few hours after applying, the surface should be sprinkled lightly with clean, coarse sand or stone chips. Before applying, the road should be swept clean and sprinkled to slightly moisten the surface, but the weather should be dry. If rain approaches, be sure to get the oil covered and partly absorbed by the screenings, otherwise the oil will be splashed out to the roadsides. One-quarter of a gallon of oil to the square yard in each of two applications will last one season, and in some cases more.

Oil emulsions in which alkali or acid chemicals are used to "cut" the oil are more easily applied, but their effect is temporary.

The cost of two applications of asphaltic oil in two applications each of one-quarter gallon per square yard, is given by the chairman of the Massachusetts State Highway Commission, as follows:

	Cents.
Cleaning and sweeping	0.56
Patching old surface16
Oil	3.19
Heating oil31
Delivering oil38
Distributing oil29
Furnishing sand at road	1.65
Spreading sand73
Watering12
Rolling02
Supervision25
Total per square yard	7.66

ASPHALTIC BINDERS.

In American practice, one of the most recent departures is the use of heavy asphaltic oil as a road-binder, applied by the penetration process. That is, over the main road foundation is spread a surface coat of 1½ or 2-inch stone, about two or three inches in thickness. After being once rolled, the heated asphalt oil, containing about 80 per cent. asphalt, is poured into the interstices of the stone. Over this is spread a light coat of stone screenings, and the steam roller completes consolidation. A paint course of asphaltic oil is then applied, and this is followed by a final dust coat of stone chips well rolled in. By the same method, lake asphalt, fluxed with oil in the usual manner, is employed in the road.

Lake asphalt fluxed with oil may be heated and mixed with stone, but the mixing process is found too expensive for country roads. The penetration method itself is only suitable for roads of heavy traffic, in which the cost of repair would otherwise be large, because of constant motor or heavy team traffic.

The cost of bituminous pavements in New York State last year was approximately 20 cents per square yard for each inch in depth of the penetrated matrix. The stone was usually penetrated to a depth of two or three inches. This class of treatment was used principally on State road metalled to a width of 18 feet.

TARRED ROADS.

The tarring of roads for preservation and dust prevention has become the standard practice in England, and is applied in several ways, which may be classified as (1) tar painting or spraying, (2) tar grouting, or penetration; (3) tar macadam; (4) tar matrix.

The tar in England is coal-gas tar, and is of a more uniform quality than that produced in this country. Tar varies greatly, according to the coal used and process of gas manufacture in which the tar is obtained. This lack of uniformity has, in part, been responsible for much of the inferior tar-macadam roads in Ontario, and for the feeling among engineers that its use is too uncertain a quantity.

In general, the tar should be refined by heating, to drive off volatile oils, and other ingredients are added. After refining tar for spraying may have added to it a quantity of linseed oil, to cause it to flow more smoothly. The tar painting or spraying method is a surface treatment, and may be by hand or by machine, the tar being spread over the surface of a macadam road in a thin layer, and a light coating of stone chips or fine gravel rolled in.

The tar-grouting process is similar to the penetration method of the United States. The tar is heated, fluxed with oil, and is then poured into the interstices of a surface coat of broken stone. When the tarring is finished, the surface is sprinkled with a coat of stone screenings or clean gravel, and is thoroughly rolled; then is completed with a paint course, topped with screenings, and rolled. The cost of a grouted surface of tarred stone in English work is about 42 cents a square yard.

In tar-macadam, the stone and tar are hand-mixed, both stone and tar being heated. The mixture used for this purpose usually contains tar, pitch, and creosote oil. The proportions are about 50 pounds of pitch, 12 gallons of tar, 2 gallons of creosote oil, and one ton of broken stone. The pitch is broken into fragments and

put in the tank, the tar is then poured in, and when these reach boiling point the creosote oil is added. Constant stirring is necessary, until a uniform consistency is reached. The stone having been heated until quite dry, the tar and stone are mixed and turned over several times, and the mixture is then spread on the road. The material is usually put on in three layers: the bottom layer 3 inches thick, of 2½-inch material; the second layer 2 inches thick, of 1½-inch material; and the top layer 1 inch thick, of ¾-inch material. The last course is dusted over with coarse, clean sand, and is rolled until consolidated. The cost is usually about \$1.00 a square yard, but this is found too expensive for country roads.

The tar-matrix process is one in which a fine grade of gravel or broken stone is mixed with refined tar, and is spread to a depth of 1½ or 2 inches over an old roadbed or well-rolled stone foundation. On this is spread a 3-inch layer of 2½-inch stone, and this is rolled until the tar matrix is brought to the surface, thoroughly sealing it. This is usually followed by a "paint" course and a dusting of screenings to seal the surface completely. Or, instead of being placed below, the tarred matrix is spread over the new stone, and is rolled down into it. And a third method, the "Gladwell" system, is a combination of the two, an intermediate layer of broken stone being sealed from above and below with the tarred matrix.

SPECIAL MATERIALS.

The demand for a road material that will be dustless and durable has caused a large number of patented materials to be placed on the market. Roseate claims are made for many, and, while some are clever and promising compounds, the important test—the time test—is one which has yet to be satisfied by all, for experience is necessarily very limited. Glutrin is prepared from a waste of wood-pulp manufacture, a dark-brown liquid, which is diluted with water and sprinkled from an ordinary watering-cart. Tarvia is a preparation or blend of tars designed to meet the need of a standard and uniform grade of refined tar. It has been used on Beverley Street, Toronto in several ways, with a view to testing its value. Westrumite is said to be an emulsified asphalt or asphaltic oil. Rocmac is a liquid which, mixed with powdered limestone, produces, on exposure to the atmosphere, silicate of lime. Several test selections have been laid in the Province, and its action in the road is of an interesting kind. Good results are reported from England and Scotland, but, with many other materials, its permanence has yet to be determined.

In general, the situation at the present time has shown the value of petroleum oil with paraffin base for easy application as a dust palliative. Petroleum oil without paraffin, and with an asphaltic base, can be applied to make a more permanent dust preventive, and, containing a large amount of asphalt, may be used as a protective coat or as a grout. Some grades of lake asphalt, applied by the penetration or grouting process, have a high value in making, at a reasonable cost, strong bituminous roads for heavy country traffic, free from dust, and reducing the cost of maintenance. The use of tar is a promising field in Canada, as in England, and affords an opportunity of being less dependent upon patented materials, and the larger asphalt and oil trusts.

The quality of stone used in the road has a marked influence upon durability, no matter what binder may be employed. Western Ontario has only limestone, while some parts of Eastern Ontario are better favored with granite and the more durable rocks. Field stone, where used, should be selected to remove inferior and decayed limestone and sandstone. For roads of heavy traffic, much would be accomplished by securing for the wearing surface a three or four-inch coat of trap or good granite, but, at the present time, the cost of securing these would appear to be beyond reach.

Silo Experience Wanted.

Editor "The Farmer's Advocate":

I would like a little advice from you or some of your readers about a silo. I think we should build one 16 x 40 feet, but would rather have one not so high, as we may in the near future like to fill with our own help and a carrier box, with gasoline engine or electric power. About six neighbors would have an outfit, and change help. If we had a silo 16 feet across, and were feeding, say, thirty head of stock thirty pounds each per day, would we take enough off daily to keep it in good shape, and how long would thirty feet of it last?

D. W. CLARK.

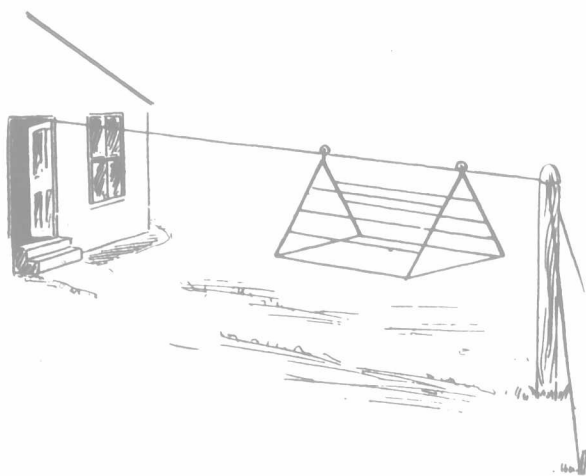
Oxford Co., Ont.

[Note.—Our observation would lead us to say that 16 feet would be too wide a silo for the size of feed named. What is the experience of readers on these points?—Editor.]

Handy Clothes Rack.

Editor "The Farmer's Advocate":

At our home we have a clothes rack which has 120 feet of line, is 5 x 7 feet, with extension arms. It closes up to be run through into the kitchen, where the washing is all put on, without the women having to go out in the cold when warm after washing. When the clothes are dry,



Clothes Rack. Used by D. F. Armstrong.

the rack is run into the kitchen, the clothes removed, and the rack set aside until wanted again. In setting it up, a line is run through the kitchen and attached to the casing above the door, and extends out into the yard about one hundred feet to a post. This post is about 10 feet above the ground. To bring the line on a level with the top of back kitchen door, a groove is cut in top of door casing to allow the line to clear the door. It is held in position with a wire hook. A No. 9 wire is used, with two pulleys attached to clothes rack, as shown in cut.

Leeds Co., Ont.

D. F. ARMSTRONG.

Convenient Water Supply.

A—Well, over which stands an 8-foot windmill, set on a 50-foot steel tower.

B—Tank-house, 12 x 12, 24 feet high. A 60-barrel tank, set on platform 18 feet from ground, holds a week's supply of water.

C—Water-box for one yard.

D—Pipe into sheep barn.

E—Partly-covered water-box, with float-valve set to furnish water to two fields.

F—Pipe to pig house.

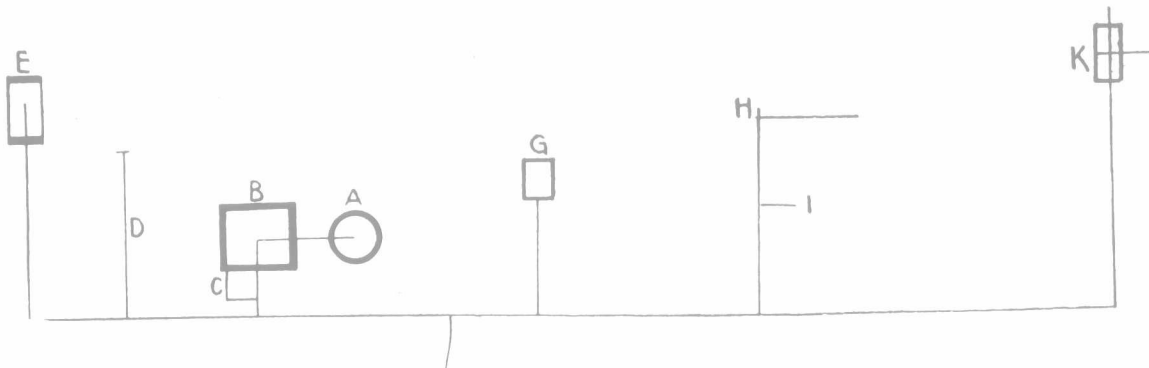
G—Water-box outside horse stable for horses and cattle.

H—Pipe into dwelling, with a tap in cellar, continued to kitchen sink, and carried upward to bathroom, where the elevated large outside tank supplies water by gravitation to the water closet's flush tank.

I—Hydrant in lawn.

K—Water-box, partly covered, having float-valve attachment, with one end in field and the other open to lane, into which stock from any field on that farm may be given access, so as to get water at will.

As the windmill works automatically, turning



Plan of John Campbell's Water System.

to the wind when water in tank goes down a few inches, and shutting off when tank is filled up, we have had for many years past a constant supply, at little cost and no labor. It is the cheapest outlay, considering results, and the greatest labor-saver we have on our farm. Oiling once a week is the only attention required.

Victoria Co., Ont.

JOHN CAMPBELL.

Pushed to the First Place.

I think a great deal of "The Farmer's Advocate." I have watched its growth from a tiny paper, and know that intelligence and push have brought it to the standard it is at the present time. As best all-round farm journal on the American continent.

Waldese, Co., Ont.

T. H. FINCH.

Co-operation in Building Silos.

Five farmers in the neighborhood of Litchfield, Minnesota, co-operated, and purchased building material in large quantities. They united, and aided each other in erecting a stave silo on each of their farms. The following is the cost of material and labor in building one of these, on the farm of Gilbert Jorgenson, who furnished these figures:

The silo is 36 feet in height, and 16 feet in diameter.

116 pieces, 2x6, 30 ft., Washington price...	\$111.36
26 pieces, 1x12, 12 feet.....	10.42
Ripping boards corner to corner for roof...	.50
10 3-16-inch hoops, 54 feet	25.00
4 pieces 2x4, 18-ft. rafters	1.34
Other lumber	7.00
Cement for foundation	15.00
Labor in cement	15.00
Carpentry, 10½ days, at \$2.25.....	23.25
Common labor, excavation and raising....	7.11
Paint	6.80
Labor for painting (3 coats)	5.00
Hardware	1.00

Total

\$228.78
This is the actual cost of the silo complete. The real cash outlay did not exceed \$200, as Mr. Jorgenson and boys did most of the carpentry, painting and common labor themselves. Staging was either returned or used on the farm, so no account is made of same, except labor. To have the above silo built by contract to-day would cost about \$275.

From careful study and observation, the writer is of the opinion that a cement-block silo of the same size, with wall six-tenths of an inch thick, complete, can be built for about the same money—possibly cheaper, if the sand is near at hand. Experience has shown that silage is as well preserved in a cement silo as in a brick or wooden silo. The hoops of an ordinary stave silo must be watched and tightened like a dry barrel. It should be kept painted and repaired. We may expect twenty years of service from it. A cement or brick silo, once properly erected, reinforced with wire, and plastered to make it air-tight, should stand the lapse of time indefinitely.

Following are some estimates on a hollow-block silo, 16.5 feet in diameter, and 28 feet in height, of cement wall. The blocks had a front facing of 9x36 inches. The lower twelve tiers of blocks are 10 inches in breadth, the next fourteen are 8 inches, and the last twelve are 6-inch blocks. The blocks were homemade, formed in wooden frames lined with sheet-iron. Seven hundred blocks were used. Sand to cement, 1:5; 43 barrels of cement required. To build the silo 6 feet higher, or 34 feet high, to compare with the Jorgenson stave silo in size, would require 150 blocks more, using nine barrels of cement additional. The blocks are laid in rich cement, 1:2 reinforced by No. 8 wire or a double course of barbed wire between the tiers. Possibly 10 barrels more of cement can be used in foundation, floor and plastering, making in round numbers a total of 60 barrels of cement. Last year, cement could be purchased in carload lots at \$1.50 per barrel, or \$90 for the 60 barrels. A mold can be purchased for about \$15. The cost of the roof is the same as in a wooden silo.

A contractor, Melvin Weeks, of Richmond, Mich., who has experience in concrete work, estimates that he can, with the aid of two men, make

100 10x32x8 blocks in 10 hours. Figuring labor at \$8 per day, it would cost \$68 to mold blocks. Two men can lay five to eight tiers per day, making the labor cost, about 8 days, at \$5 per day, \$40. To lay a cement floor, and to put on ½-inch cement plastering, \$25. Chute to throw down silage, \$15. Silo doors, \$5. Reinforcing, 300 pounds No. 8 wire or barb wire, \$12. The cost of silo now stands:

Cement	\$ 90.00
Molding blocks	68.00
Laying blocks, floor, and plastering.....	65.00
Chute and silo doors	20.00
300 pounds No. 8 wire	12.00
Roof (same as wooden silo) about	20.00

Total

\$275.00

By co-operation and close figuring, the labor

items may be reduced. Such a silo will hold 140 or 150 tons of silage. Original cost of storage, less than \$2 per ton. By getting together, buying in carload lots material for silos, of whatever material desired; co-operating in building and filling, and in the purchase of machinery, there can be a saving of dollars and cents which may be needed for the home or other improvements.—[Chas. Nelson.

How I Would Manage a 50-acre Farm.

Prof. Dean stated, in an address before the Farmers' Milk Congress, of Pennsylvania, that the great problem confronting the dairy-farm manager to-day was how to increase the profits per cow and per acre. I am going to solve that problem by adopting the soiling system, and doing away almost entirely with the pasturing system. The pasturing system of farming is, to my mind, the most extravagant system of farming ever invented. Let us see how it works. The stock are turned out in the spring. The pastures are good, and for a time they do well, but they trample and spoil as much as they eat. In a few weeks' time the pastures dry up, the flies become troublesome, the stock lose in weight, the milk flow decreases, and the profits are low. All this may be avoided by adopting the soiling system in summer, keeping the cattle inside in a darkened, well-ventilated barn, cutting and carrying the feed to them.

Thus we will be enabled to make one acre take the place of three or four under the old system; we can save building and maintaining nearly all interior fencing; we can save 40 to 50 per cent. of the crops by preventing the stock trampling and otherwise spoiling them; we shall get increased flesh and an increased milk flow, owing to the greater comfort of the stock; and last, but not least, we can increase the fertilizer produced on the farm by 300 or 400 per cent.

The buildings must be modern, convenient, well lighted and well ventilated. Good ventilation is absolutely essential, as I intend keeping the stock inside winter and summer, and the best of ventilation will be necessary under those conditions.

As regards stock, I would stock the farm with 24 milch cows, 6 two-year-olds, about the same number of one-year-olds and calves, a pure-bred herd bull, two brood sows, and three horses, one of these being a driver and general-purpose horse. This stock, consisting of, say, 36 head of full-grown animals, will be kept the year round from the product of 35 acres. The rest of the farm, 15 acres, or thereabouts, will be devoted to orchard, garden and grain crops.

This will necessitate the employment of labor. I shall engage the services of an experienced teamster and a boy of about sixteen or more, besides, unfortunately, having to work myself. I should aim to have a separate house built for the teamster, and engage a married man, as this is the only method to obtain steady, reliable farm help, and to keep it.

In laying out the work necessary to provide feed for the 24 cows and other stock, I will start with the autumn. In the fall, I will plow up nine acres and sow to rye and wheat, to provide early spring crops. Only about half of this will be required for feed; the rest will be plowed under. In the spring, as soon as the land is fit, four acres of the rye and wheat will be plowed under, and one acre sowed with barley, 2½ bushels to the acre. At intervals of a week, the other three acres will be sown with oats and peas, 3 bushels to the acre, half and half. The rye will come in first, and be followed by the wheat, and the barley and oats and peas are for feeding in July. For August feeding, three sowings of one acre each, with corn and sorghum, will be made during May, at intervals of little over a week apart. Then, as the oats and peas are consumed, the land they occupied will be seeded to barley and millet for the latter half of September and October. As the corn is cut, the land it occupied will be sown with wheat and rye for spring feeding. Thus the summer's fodder is provided for from, at the most, 10 acres for 36 full-grown animals.

You will have noticed that I have not so much as mentioned alfalfa, and for this reason: It is altogether uncertain that there will be a patch of alfalfa of any size on the farm when I go onto it. But, if conditions are favorable, I will seed down 13 acres to alfalfa. Then this crop will take the place of many of the soiling crops mentioned, as it is undoubtedly the best soiling crop grown in Ontario. The 13 acres should provide 35 to 40 tons of the best hay, besides supplying green food in summer. Then, four acres will be devoted to growing root crops, and eight acres to corn for the silo.

The farm team in summer will go out in the morning, and cut sufficient feed with the mower to last two days. This will be brought home and spread on the barn floor. The cattle will be fed five times a day, and before each feeding the mangers will be cleaned out thoroughly. A cow will hunger in the midst of plenty, sooner than eat food that she has breathed on for a time.

If no orchard was on the farm, I would plant out five acres with apple trees, 30 or 40 feet apart. These trees will be well looked after, pruned and sprayed as often as necessary to keep them in thrift. This orchard, not being bearing, I will devote to sheep, stocking it with 24 ewes, and fattening their lambs there. One acre and a half I will sow with rape, and the rest I will seed down to grass, although I am well aware that this will be heresy to our horticultural friends. The rape will be fenced off, but a lamb-creep will be provided to let the lambs in; the young trees will have to be protected with wire netting. A rough shed will be built, in which the sheep will be fed winter and summer in racks. In summer they will get the same soiling crops as the cattle. A separate compartment will be made for the lambs, in which they will always find a supply of crushed oats, bran and oil cake.

The poultry will also be located in the orchard.

From five to seven acres will be devoted to oats, but it will be necessary to buy annually several hundred dollars' worth of concentrated feeds. This will build up the fertility of the soil, and be a good investment.

The milk will be obtained and cared for in as cleanly a way as possible. It will be separated on the farm, and the cream sent to the creamery. If the water on the farm is above 45° F. in temperature in summer, it will be necessary to put up about 30 tons of ice every year. The milk will be weighed, and a composite sample made up and tested every month. Thus, an accurate record will be made of each cow's performance. The heifers from the best cows only will be kept, and an endeavor made to build up a herd to average 400 pounds butter per year.

One thing I consider absolutely essential on this farm. That is, a tank for holding the liquid manure. I will have one constructed of brick or cement, and allow the drainage from the buildings and the manure pile to flow into it. The liquid will be pumped over the manure pile occasionally, and sprinkled over the alfalfa during showery weather in spring. By thus providing for the storage of this liquid fertilizer, I shall save at least 50 per cent. of the value of the manure produced on the farm—a proportion that goes annually to waste all over Ontario.

In conclusion, I will enumerate three points I consider essential: First, the housing of the cattle in summer, with good ventilation, and feeding them tied in their stalls; second, the sowing each week, during May, June and July, enough ground to last for one week; and third, the care of the manure produced on the farm.

[Note.—The foregoing article, on managing a 50-acre farm, is the text of an address given by S. H. Hopkins, in a public-speaking contest, at the Ontario Agricultural College. It was awarded first prize. Though not necessarily endorsing his views, we gladly give space for them. What would be the outlook for the future of our country if our young men did not "see visions"? A thousand times better so than that there should be a blind, unreasoning following of old methods. If the calculations contained in the article are warranted by facts, then fifty acres may be made to yield an income easily equal to what the average 100 acres returns. We think, however, that many of the statements may be criticised, and we invite readers who have had experience in soiling to examine the article carefully, and give our readers the benefit of their opinions. The claim that 36 full-grown animals could be fed for the summer from the produce of ten acres, seems rather extreme. How about the health of the animals? Would vitality not be lowered by constant confinement?—Editor.]

Double Wall for Silo.

Editor "The Farmer's Advocate":

Many questions are asked through your valuable magazine regarding best silos, and the best kind of walls to keep out winter's cold or summer's heat. I give you a description of what I consider the best wall for silos.

By all means, have an air space, as that is one of the best non-conductors. The hollow block may sound well enough, but does not make a hollow wall, as the walls are joined by a solid block of cement as great as the space left, and it is, therefore, not a hollow wall.

Two walls can be built just as easily, having a space of two or more inches between, and being tied together by galvanized wire. With a rotary cement-block machine, the outer and the inner blocks can be made at the same time, so that the two blocks are as quickly made as one hollow block. More than this, with a properly constructed rotary machine, a very fine face may be put on the outer block, by sifting fine sand and cement moistened, thus rendering the block practically waterproof, which is a very great desideratum for silo, barn foundation or house.

My process of making the blocks is: First, find the curve required. This may be easily done by taking a string one-half the length of the diameter of intended silo, fastening one end to

form a center, and with a pencil or scratch awl describe part of a circle to give curves for both blocks, say 7 inches for thickness of first block. Now, shorten the string seven inches, and draw another line, which will represent the inside of outer block. Then, if two-inch space be wanted, shorten the string two inches and draw a line for the longest radius of the inside block, and then another line for the inside radius of the inner block. From these lines, block out the patterns to suit the rotary machine, and screw them in place.

The block to represent the space is left a little thinner at the upper side (which will be the lower side when the blocks are turned out), which makes it easier pulled than if it were of equal thickness throughout. The bend to represent the hollows on the upper edge of the block is cut to the proper curve, having two branches at one quarter of the distance from each end, the branches pointing to the block representing the air space. These branches are to place the tie wires in. The hollow in block is to place cement, with a wire imbedded every three or four tiers to keep silo from splitting.

A bead of 1½ inches is placed in the mould for ends of blocks, thus leaving an inch and a quarter hole where ends of two blocks are placed together. This is to be filled with cement.

I am opposed to such an amount of plaster being put between the courses as we see in brick-laying, for the strength of the joint is only the strength of the mortar between, and what we want in a silo is strength and air-tightness. This is got by neatly-fitting blocks resting upon each other, or with only watery cement blown between, and any handy man can lay such a wall as well as a mason. WM. WELSH.

Bruce Co., Ont.

Curing and Keeping Pork.

If your staff know of any method of keeping bacon and hams (after they are pickle-cured) through the summer, I wish you would publish it. We have tried packing them in different mixtures, and sowing them up in good cotton bags before any flies came, but when we cut into the bone, crawlers of some description will always be found at work. W. M. LEA.

Our correspondent may be mistaken in thinking that he had packed his pork away before flies came. They come very early some seasons, and, setting a good example to all, get to work without delay.

Having the hams and bacon sewed up in cotton bags is by no means a sufficient protection. The mother fly easily pierces the cotton and deposits her eggs on the meat. Those in the trade exercise much more care than that. They wrap the pieces in a thick paper, made on purpose (several thicknesses of ordinary newspaper should be equally good), and then put them into cotton bags and hang up, afterwards brushing all over the bags a mixture of glue, water and yellow ochre.

While on this subject, the following method of treating pork, which, though not exactly new, perhaps, is certainly excellent, and may be of interest. This recipe was kindly sent in by a lady on request of one member of our staff who had got some meals at her home nearly four years ago. He never forgot the excellence of the fried pork which was served up at breakfast and dinner, and contents to this day that it was superior to any pork he ever tasted, either fresh or cured. Some of his friends insinuate that it was because he was extra hungry that the flavor seemed so superior, but this he stoutly denies.

"I take the side meat and shoulders, and rub them well with salt and brown sugar, about one-quarter pound sugar to one pound salt. I then pack the meat in a barrel or on a board, and let it stay three or four days. Then I take it out, scrape off all the salt that is left on the outside, take off the rind, and slice and fry just like you would for the table, only do not cook it as much as you would if you were going to eat it. I have large stone crocks or lard pails, and as soon as it is fried I pack it in these, and pour the fat that fries out of the meat over it. When I get a pail or crock full, I place a plate on top to keep the meat down in the fat. When it gets cold, run lard over the top of the pail, thick enough to keep the air from the meat (about one inch). I keep mine upstairs. It should be kept where it is dry, or it will mildew. When I begin to use a pail, I bring it down to the pantry, where it will keep while you are using it through the hottest weather. I remove the lard from the top, take out what I want for dinner, put it in the frying pan, cook it a little more, and it is ready for use. If you want to stop using pork for a week or so, just run some lard or fryings over the top, and it will be all right.

"In preparing the meat, if three or four frying pans are put on at once, you can fry a lot in a day. We think it a good way to keep meat." MRS. ISAAC BAKER.

Middlesex Co., Ont.

Government Should Start the Work.

Editor "The Farmer's Advocate":

I have read with much interest the letter of Richard Hampson, re drainage, in your issue of April 13th, and wish to express my entire accord with the views he expresses. I cannot see any chance of much being accomplished unless it is first taken in hand by the Department of Agriculture, and given a start. There are two main reasons for this. One is pointed out very clearly by Mr. Hampson: it is absolutely impossible for us to get the work done without a ditching machine, and private enterprise will not take hold until there is assurance of plenty of work ahead. The other reason is that our farmers, as a whole, do not realize the enormous advantage of a thorough system of underdrainage. It is impossible that they should realize it, because, outside of a few who have farmed in the Old Countries, not one in a hundred has ever seen a thoroughly-drained farm. Everyone appreciates the necessity for and the advantages of draining what we call wet land and low spots, but only those who have seen it can understand what underdraining would do for a great deal of land that is considered fairly dry. This is largely the reason why the Government should take it in hand first. Let them start with half a dozen machines, distributed over the Province, and commence, not on the wettest farms they can find, but on some considered fairly dry, whose owners are willing to have a complete job done. If possible, select farms where some record has been kept of previous yields, and that are conveniently located, so that they could be used for a kind of demonstration farms. There would then be some definite results to talk about, and I venture to say that it would be only a very short time until there will be such a demand for these machines that the Government would be able to step out and leave it entirely to private enterprise. The cost would, in the end, be only trifling, as the work should be paid for at same rate as if done by a privately-owned machine. The only loss would be in having at first to cover a good deal of territory to get work. In view of the enormous benefits to be derived from drainage, I do not think the cost should be considered. This would, however, be considerably reduced if the Dominion Government would put ditching machines on the free list. What do other readers think of the scheme?

ALFRED HUTCHINSON.

Wellington Co., Ont.

POULTRY.

Egg Eating.

1. Kindly tell me what causes hens to eat their eggs and how to stop them?

They are fed oats and buckwheat morning and evening, in the proportions of one part buckwheat to four parts of oats, and a mash of ground oats and vegetable scraps at noon, and have skim milk and water to drink, and plenty of exercise.

2. I also have a number of geese, which get out every day, and are fed oats and buckwheat in the same proportion as the hens, and are eating their eggs in the same way. I would like to know how to prevent them. L. W.

Ans.—1. Egg-eating, when practiced for a considerable time, becomes a vice—a habit which is hard to break up. It may be begun by a hen discovering an egg that has been frozen and has



Cheap Fresh-air Poultry House in British Columbia.

begun to thaw, from which oozes liquid which is peculiarly palatable to fowls, particularly if they have not been getting any meat food. Many flocks are not supplied with lime in winter, and a craving for that exists, which causes the shell to be eaten greedily. A start once made, the rest (even to the watching for eggs to be laid), follows naturally. No measures short of killing the egg-eating birds may avail to stop the trouble. However, other means are worth trying. Feed lime in some form, and meat, also. Feed the flock away from where the nests are. Darken the nests. See article by W. E. Williams in April 6th issue, in which sulphur is recommended as a curative for feather-eating. It might be well to try it for egg-eating also.

2. In regard to egg-eating by geese, we would suggest that you exercise your ingenuity, making use of hints given above, and if you succeed in getting habit overcome, let us know how you did it. If any readers have experience in this matter, we would esteem it a favor if they would, through us, give our readers in general the benefit of it.

Trap-nests, or Poultry Pedigree.

Editor "The Farmer's Advocate":

Heredity, we are told in one dictionary, is "that tendency which there is in each animal or plant to resemble its parents in all essential characters." By another authority it is more concisely stated as "the transmission of parental characteristics to the offspring"—the term offspring not being by any means limited to the first generation. The latter we much prefer, for, as

Darwin states, "Certain characters, capacities and instincts may lie latent in an individual, and even in a succession of individuals, without our being able to detect the least sign of their presence," and yet these are as truly due to inheritance as the "essential characters" of the first definition.

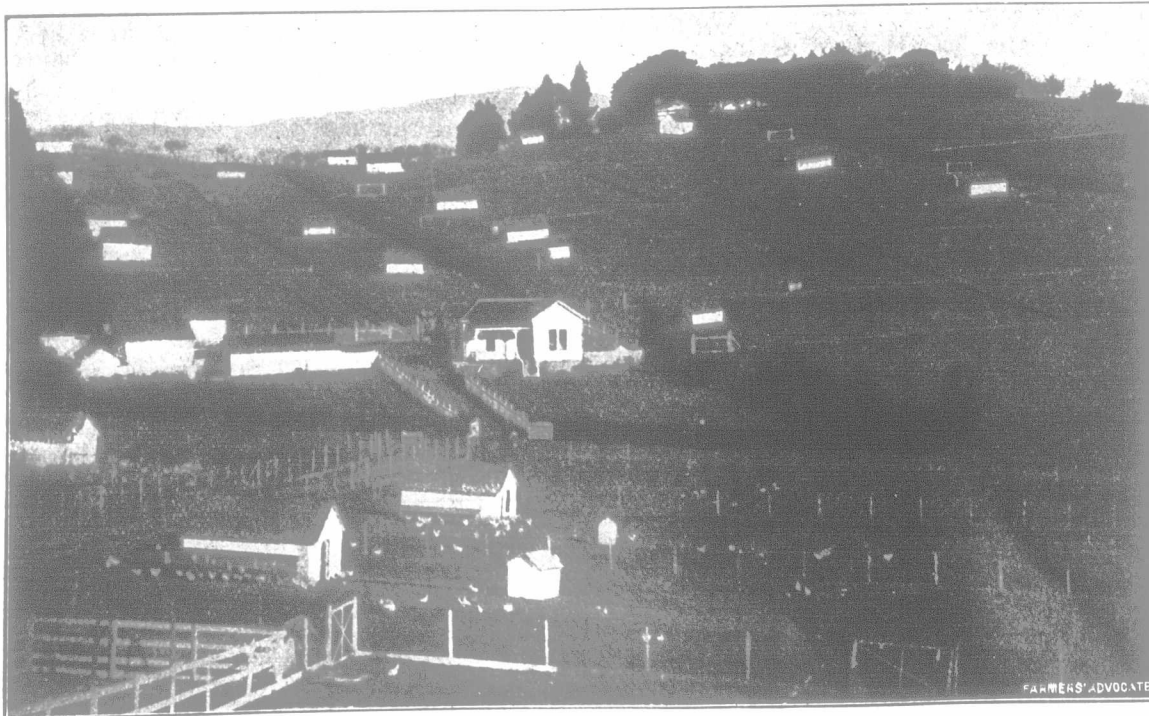
The laws of inheritance are being sought after more and more every day. Even though slowly, they, like those of electricity, are coming into man's hand to increase the world's productivity. To carry the similarity still farther, the blood streams of heredity are awaiting the breeder as the multitudinous waterfalls do the electrical engineer. Burbank's name thrills the mind of the student of plant life with the same enthusiasm as comes to that of the student of electricity when Edison's is mentioned. However, to those of us who are neither Burbanks nor Edisons, some little spot worthy of investigation may be found within our reach, and, to do our part bravely, we must "at it," even if the sower's hands do not always partake of the harvest.

To the earnest poultryman, this "prepotency in transmitting their likeness" is a particularly rich field for investigation. No mere poultry-keeper can with certainty say this or that hen is a good layer, and it is just for that reason that he never really becomes anything else than a poultry-keeper. The up-to-date poultryman, however, is able to identify the egg, as well as the hen which laid it, and would no more think of depending on the hit-or-miss system of breeding than the down-to-date dairyman would think of adding to his herd without the assistance of the Babcock test.

The dairy and poultry industries are peculiarly related, in that it is the daily output of our living factory that goes to pay the dividend after the yearly summing up, and only everlasting attention to details makes the success. Even an annual classing with the sheep-breeders is sufficient to make a fairly even clip. The buyers do not fail to recognize the fact that the intelligent owner has been weeding out the poor ones, and not only gives him the preference, but also a better price than his less painstaking neighbor. The same may be said of the other branches of the great farming industry.

We propose, in this article, to say something about the trap-nest and its uses to the poultryman. How long trap-nests have been used, it is, of course, impossible to state definitely. Suffice it to say that fifteen years ago trap-nesting must have been in its infancy. At that time there was considerable said and written about trap-nests, and some twenty-odd patents have been taken out for contrivances of various sorts, the chief aim of each being the identification of the hen that laid the egg. The really good trap-nests can be counted on the fingers of one hand.

Although the trap-nest has been in use for these eighteen years or more, it is surprising to find how few there are amongst poultry-keepers who understand the working of a trap-nest, let alone the use of it. Some months ago, in conversation with the secretary of a poultry association which even has an annual show, we happened to mention trap-nests. He admitted he had never seen one. Upon further inquiry, we found there



A Well-kept Poultry Plant and Attractive Surroundings.

was not even one active member of the association to whom a trap-nest was anything but new. This, we take it, is our excuse for this article.

A trap-nest must be so constructed as to automatically close a door which confines the bird until she is released by the poultryman. To the leg of each bird is attached a numbered band, and as she is released her number is taken and recorded upon a properly prepared sheet. Each sheet will represent a month's work in that pen. Having the sheets ruled both vertically and horizontally gives a space for the date, as well as the number of the hen.

A trap-nest must be compact and inexpensive; an orange box makes an excellent nest. It must be reliable, so that one hen, and one hen alone, can be present at a time. This does away with crowding and quarrelling, thus lessening the danger of breaking the egg in the nest. A broken egg means the first lesson in the bad habit of egg-eating. The trap-nest detects the egg-eater at once. The nest must be convenient and simple. With a good trap-nest, even a child can release the hen, record the number, and reset the nest, in five seconds. Another requisite of a good nest is that it must be inviting to the hen that wants to lay, and unattractive to the hen that is simply curious. We find a two-roomed nest, with a darkened laying compartment, to be the best. The door is made of inch-mesh netting, so as to provide light in the waiting-room for lady hen, where, if the attendant is not too long in coming, she patiently awaits her release.

Darwin states, as his first law of inheritance, that, "There is a tendency in every character, new and old, to be transmitted by seminal and bud germination, though often counteracted by various known and unknown laws." It is generally believed by observing breeders that the longer any character has been transmitted by a breed, the more fully it will continue to be transmitted. This is, of course, taking it for granted that all things are equal in each succeeding generation. In the poultry world, one who thinks can see how impossible it is, without trap-nests, to get any reliable data from which a definite statement can be made that this or that hen is, or is not, a phenomenal layer. This "character," to be made use of, must be definitely recorded. Her offspring must be observed for this "character." The poultryman does not need to wait with fear and trembling to find whether his mating "nicked." He knows that, according to Galton's law, as a rule, the two parents have contributed to their offspring's "character" one-half between them, or one-fourth each; the grandparents one-fourth between them, or one-sixteenth each; the eight great-grandparents one-eighth between them, or one sixty-fourth each, the remainder being contributed by remote ancestors; so that, no matter which form of inheritance is most predominant, the continuous, resembling father and mother, the interrupted, resembling grandparents, or the collateral, resembling uncles and aunts, he has in that offspring's pedigree the assurance of results. Of course, we do not wish it understood that the breeder can expect that every pullet mothered by a 200-egger will also be a 200-egger. Getting a good egg yield is not only a problem of breeding, but also one of feeding. Birds that have been bred for prolific egg production, when properly fed, will undoubtedly produce more eggs than birds which have not come from a heavy laying strain, although in each case the food and care may have been the same. One can see that there are many details influencing the problem, and that it is only by indefatigable care and attention a poultryman's results may be satisfactory to himself. A change in the climate, in the feeding ration, in the care, may be so profound as to cause a set of characters, as heavy egg production, to diminish or disappear, and the offspring may prove indifferent layers. Length of inheritance and care in fixing character does not counterbalance poor care or feeding. Stock or eggs secured from a breeder requires the same care and attention that he gives to secure the like results. We remember a setting of eggs we sold to a farmer a few seasons ago. He placed them under a hen so lousy she died attempting maternity. A second hen did not prove such an easy victim of her circumstances. The poor chicks were assaulted on their birth by such an army of vermin that half succumbed. After a few months' struggle with disease, vermin, and all the ills of a filthy surrounding a chick is heir to, the results of that setting of eggs was indeed a sorry sight. Pedigreed stock on that man's farm was surely out of its place.

A point in favor of the trap-nest which, to our mind, cannot be too strongly brought out, is the acquaintance, or even actual friendship, that is developed between the individual members of the flock and the attendant. His constant, gentle handling makes her tame and without fear. This characteristic tends greatly to increase her usefulness. A tame hen, like a quiet cow, well rewards the attention given her. Her utmost capacity seems to be drawn out. We have been trap-nesting for six years, and have not seen a single instance where a wild, highly nervous hen has anywhere approached the 200 mark. If, after her first month in the trap-nest, a pullet does not quiet down, unless she gives promise as a show bird, she is dis-

carded as a cull, and fit only for the market basket.

With the trap-nest, the attendant keeps in touch with her condition, and is able to tell when, from improper feeding or housing, or from any other of the hundred phases of her surroundings, when the bird under observation is not in her prime and proper laying condition. The remedy is to suit the evil. She may be too fat to lay a fertile egg, or her infertility may be an individual characteristic that the pedigree tray of the incubator reveals. Some years ago we observed such a one of really exhibition quality. Thirty successive eggs proved infertile. As an experiment, she was placed in a pen as the single member of the harem of a rather vigorous cockerel—her former supposed alliance had been with a cock bird. Fifteen eggs were tested in the incubator, with the same result as before. In our yards, such a period of infertility had condemned her long before the experiment was finished. It was as interesting as disappointing, and we came to the conclusion that she never had laid a fertile egg—an individual characteristic.

Uniformity of product is another object to be obtained by the poultryman from his trap-nest. A breeder catering to the wants of his market is the man who can and does command the fancy prices. The quicker the hen that habitually lays a white egg, when the long price is paid for a brown one, is found out and culled, the quicker the poultryman obtains his high price. The same is to be said of small or mis-shaped eggs, and these occasionally are laid by hens apparently the most healthy and vigorous. These birds, of course, are culls. It is surprising how long the size and color of a certain hen's egg will remain a characteristic. An observing attendant can, in quite a number of instances, tell to which hen a certain egg belongs. However, were a man to depend entirely on shape and color, he would eliminate accuracy as a factor in his work, and, of course, this accuracy is the essential.

The matter of identifying the individual egg from the individual hen is really of the utmost importance, not only, as we have said before, in establishing a record of that hen's performance, but also in the pedigree work of the breeding season. Each egg is dated and numbered with the hen's number, and the offspring toe-marked from the pedigree tray of the incubator, so that at any time in that chick's existence the poultryman can in a moment give its ancestry by looking up his records. No point or combination of points in the "Standard of Perfection" is equal to this in importance or satisfaction to the utility breeder.

We are told by those who ought to know that the average yearly egg yield throughout the country is about 120 eggs per hen. They include in these statistics the scrub hen of various color, so common, we are sorry to say, in the yards of farms which surely deserve better occupants. The age, breed, or even the number, is frequently unknown, so that we think there can be but little accuracy when number of eggs is the item to be passed upon. Assuming that 125 eggs is the average, look what a tremendous addition even an increase of one egg per hen would mean. We are also told that we have 25,000,000 hens in Canada; 25,000,000 eggs, at 18 cents per dozen, would mean some money.

We hear someone say, "Who can afford all this time and trouble, such as is necessary to look after a battery of trap-nests?" No one has ever been able to keep a daily record of his individual fowls and their eggs, or, in fact, do anything worth doing, without devoting more time to it than would be necessary if such work were not done; that is self-evident. However, how often do we find it that the man who complains most loudly of lack of time for anything is the man whose record of daily work is least systematically arranged. To the poultryman with such an excuse as lack of time, we say, look over your work carefully, and we doubt not but that you will find many leaks by which even far more time is wasted than would be necessary to do things not only systematically, but in such a way as will be of lasting satisfaction. Such a system in the poultry yard eliminates the haphazard, and graces a man's work with that scientific accuracy which alone can be of lasting benefit to himself or his fellow man.

J. A. BUTLER, M. D.
Durham Co., Ont.
[Note.—While believing in the use of the trap-nest system by breeders, we would point out that breeding for production is an even more complicated matter than herein explained, as the apparently successful, but really quite largely unsuccessful efforts of the late Prof. Gowell, of Maine, went to indicate. It is hard to advance beyond a moderate point of success. Nature rebels. It seems to us that the foundation of success must lie in special attention to constitution and stamina.—Editor.]

The other day we turned a flock of our fowls into an acre field of currant bushes which had been heavily mulched with barnyard manure. In a few days the fowls reduced manure to the fineness of dirt, and this field will be in the best possible condition to produce a bumper crop of fruit.—[Reliable Poultry Journal.]

THE DAIRY.

Replenishing the Dairy Herd.

Editor "The Farmer's Advocate":

Cursory observation suffices to demonstrate the fact that but few dairy farmers are replenishing their herds with young stock of their own breeding and rearing. To follow the bidding at any public sale of dairy cattle impresses one with the fact that the buyers apparently need and must have these cows, while the sale and bidding develops into a melee, with prices soaring beyond the actual value of the animals.

This is surely evidence that the buyers are not providing sufficient young things annually to fill the places made vacant by the removal of the older animals. In every herd there are always some members to be moved out each year, and the point I would make is that these should be replaced by young animals of higher merit that have been reared on the farm.

Aside from the fact that this is the only way improvement will be effected in the quality of our dairy stock, and is the only hope we need entertain of obtaining cows better than those owned heretofore, this system is economical and highly profitable. Exorbitant prices are being paid, with no knowledge of what the animals are really worth. Milk records, which are the only true indication of individual worth, have not been kept, the buyers taking merely the work of the herd in general. Still, buyers are paying ninety dollars and upwards for cows that merely look well, not knowing whether they have ever milked well or not. While we are not sure of every heifer reared from the herd making good on coming into milk, still, knowing their dams, we may look for a semblance to them in the daughters; and if the heifer has been sired by a better sire than her dam, it should at least make as good a cow, if not better, according to the laws of breeding.

In this work of improvement and replenishment of our herds by breeding, the fundamental principles are: First, the selection of our best dams; and, secondly, a superior sire from one of the dairy breeds.

In choosing the breed from which to draft our sires, we should select the one that best fulfils the demands our conditions call for; and, this decided, we should continue assiduously in the use of pure-bred sires of this particular breed. Following this line-breeding, we are at each cross more fully establishing those breed characteristics and qualifications that commended the breed to our liking. If we are using in each successive sire one of superior breeding to his predecessor, each year's heifers will be of higher merit than those of the year before, and there will be more of the breed in our herd. While it would not be possible to ever attain to animals of pure breeding, we could, in only four crosses, have a progeny with only one-sixteenth of other than pure blood, and such cows as are bound to excel in milk production, besides being an adjunct to the farm that would be a credit to its owner, and a source of profit and satisfaction to him.

What appeals to the fancy of any lover of live stock more strongly than uniformity of size, form, color, and worth? The motley throngs of dairy cattle to be seen in our pastures so often, testify very clearly of their probable breeding, and in many instances the productive capacities of these individuals are as widely different as their color markings.

Another fundamental principle in this work of progressive breeding is the selection of our dams from which to increase our herd. In this work we are enabled, by a system of weighing and testing the milk regularly, to ascertain definitely the comparative values of each animal as a milk and butter-fat producer.

While many owners conclude that they know their cows well enough not to necessitate this extra work, I am convinced that there is nothing so misleading as such judgment, arrived at without the aid of system. With our best cows selected in this way for our first cross with a superior sire, we should continue in the same way, always selecting from our best as the standard keeps rising higher and higher.

In this way most excellent families of grade cows may be developed, as our breeders of pure-bred stock develop their families or strains of pure-breds. With proper rearing of the calves, better results are bound to be had than when the practice is pursued of buying just when needed, where most convenient, and at an exorbitant price, in the heat and excitement of a public sale.

Against the argument that it costs too much to rear calves profitably, it may be said, that cows (really good ones, of proven worth) were never in such demand as at the present time, which surely means that such cows are hereafter going to cost still more than at present.

With milk at about 80 cents per cwt., and with straight young cows showing some breeding realizing, at three and four years old, ninety dollars and upwards, sufficient of this milk could have been used at a greater profit in giving a bunch of nice heifer calves a start for the first year. Indeed, some of our most live dairy farmers are considering whether an actual business could not be followed profitably, of rearing for market choice young dairy cows.

If we would have better cows in the most profitable way, our wisest course is to breed and rear them along the lines I have outlined, viz., selecting a breed from which to obtain the pure-bred sire as each is needed, mating such sire to our best cows, and then properly rear the young calves thus obtained into cows to displace the older ones.

C. HAMILTON.
Dundas Co., Ont.

The Trend of Our Dairy Trade.

Editor "The Farmer's Advocate":

In view of the reciprocity agreement now pending between Canada and the United States, to which the eyes of the commercial world have been turned during the past two months, it might be well to look at one little item of trade between Canada and the United States which has developed during the past eighteen months or so, to show which way our trade winds blow just as soon as we find it profitable to do business with our neighbors to the south.

Our dairy business has been held up for the admiration of all Canada for the past decade or two, and it is generally supposed that Great Britain takes practically all our surplus dairy products. This has undoubtedly been true up to within the past two or three years, but a change seems to be taking place, as our trade figures unmistakably show.

Great Britain is our principal buyer of cheese, and a few years ago took practically all our surplus butter, but our butter exports have been declining since 1905, and last year's exports to Britain were down to a few thousand boxes. A decrease in exports from over 500,000 boxes to less than 40,000 boxes, in five years, looks, on the surface, as if our butter industry was declining very rapidly. The facts, however, are quite the reverse, and it is interesting to find out where the butter is going to if it does not cross the Atlantic. A few years ago our Northwest was sending large quantities to the seaboard, but now Eastern butter is going out there to supply our newcomers, and the demand must increase in that direction. We have, however, another factor to reckon with, even if this trade agreement does not pass, in the shape of a stream of cream, which started flowing across into the Eastern States in August, 1909. Before the Payne-Aldrich tariff came into force, the duty on cream was 20 cents per gallon, and the duty on butter was 5 cents per pound. Under the Payne-Aldrich tariff bill, cream was lowered to 5 cents per gallon, and butter and cheese were raised to 6 cents per pound. As soon as this bill became law, some enterprising Americans down in Vermont began looking across the St. Lawrence for cream, and one creamery proprietor in Quebec made the venture by shipping over 1,650 gallons in August, 1909. It paid better than making it into butter at home, and the next month the shipments were 12,160 gallons. Other factories soon began to take a hand in this enterprise, and the shipments increased rapidly month by month, until, in October, 1910, 327,064 gallons were shipped across in that month, valued at \$309,919; and up to January 1st, 1911, the total value of the cream exported in eighteen months was \$1,902,042.

Notwithstanding the duty of 6 cents per pound on butter and cheese, Canada shipped, for eight months, ending Nov. 30th, 1910, butter \$85,610, cheese \$9,407, and other dairy products, making a total of \$1,611,645.

This all goes to show the trend of trade where the barriers are not so high as to be absolutely prohibitive, and what would it be if the flood gates were pulled out altogether? Wisconsin and Minnesota might send some butter to our Northwest cities, but the natural market for Ontario and Quebec would be the large consuming centers of the Eastern States. Why should our perishable products be compelled to travel thousands of miles to find a market, when we have a market at our doors which is ready to take ever-increasing quantities? Canadians want the market which is going to pay the most for what we have to sell. We want the British market for some things, but we want other markets as well; and if those who are shouting, "Let well enough alone" would only be consistent, they must admit that a growing country like Canada simply can't "let well enough alone," if she is to keep up her splendid record, and keep pace with other nations.

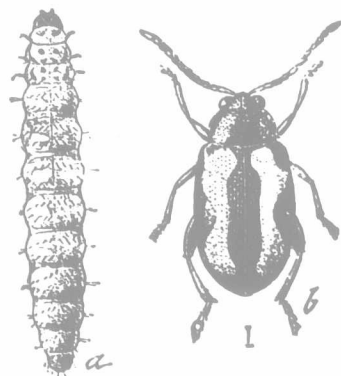
J. STONEHOUSE.
Ontario Co., Ont.

GARDEN & ORCHARD.

Flea-beetles.

From address by L. Cæsar, at the Ontario Vegetable-growers' Convention.

These are tiny little beetles, usually not more than one-tenth of an inch long. Most of them are black, but some are a dusky green, and others are marked with yellow, red and other colors. They get their name from their habit of leaping away like fleas when disturbed. Probably the most troublesome of all is the striped turnip flea-beetle (*Pbyllotreta vittata*). This insect is black, with a wavy band of pale yellow running down each wing-cover. It attacks almost all kinds of plants belonging to the order Cruciferae, such as turnips, radishes, cabbage and cauliflower, and I have seen it this year very abundant on some



The Turnip Flea-beetle and larva—greatly enlarged.

kinds of wild mustard. The potato flea-beetle (*Epitrix cucumeris*) is another troublesome flea-beetle. It attacks potatoes, tomatoes, and sometimes cucumbers. The insect is very small and black, and eats tiny holes in the leaves, sometimes affecting them so severely that they die. Blight gets a chance to enter through the injured parts. There are several other kinds besides those mentioned that attack various kinds of vegetables. Most of the damage from flea-beetles is done early in the spring, just after the plants have been set out, or the seedlings have appeared above ground. In such cases it required very prompt measures to prevent the destruction of the whole crop if the beetles are numerous.

REMEDIES.

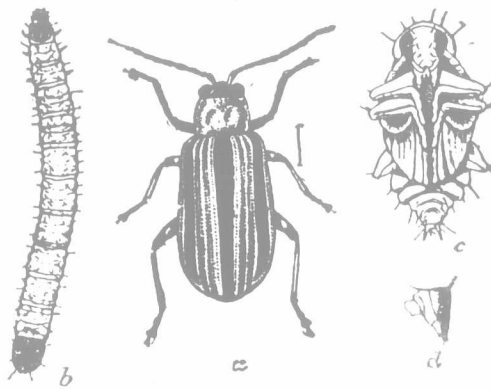
(1) Late Planting.—From what has been said above, one might hope that the beetles would soon slacken off, lay their eggs, and either disappear or not attack so voraciously plants that were sown late in the spring. This is usually the case, and in most seasons turnips can be sown with comparative safety after June 20th, as can also many other plants.

(2) Poisoned Bordeaux Mixture.—In many cases the beetles can either be destroyed or driven away by spraying the plants as soon as they appear with Bordeaux mixture, to every barrel of which three or four pounds of arsenate of lead has been added. This will have to be repeated about every third day until the plants get once well started, when it can be discontinued. On account of the smooth surface of cabbage and some other plants, it is well to add a sticker to the Bordeaux. This is made as follows: Boil together 2 pounds resin and 1 pound sal. soda in 1 gallon of water in an iron pot in the open until a clear brown liquid is formed. This will usually take from one to one and a half hours. Add the above amount to every forty-gallon barrel of the poisoned Bordeaux. Many other remedies have been advocated for the destruction of flea-beetles, but poisoned Bordeaux has given the most satisfactory results.

Striped Cucumber Beetles

(*Diabrotica Vittata*).

Every grower of cucumbers, squashes, pumpkins or melons is familiar with the small beetles, about one-fourth of an inch long, with alternate yellow and black longitudinal stripes on their wing covers. They are often very destructive,



Striped Cucumber Beetle—grub and pupa—greatly enlarged.

and are certainly very difficult to combat successfully. The chief damage is done in spring to the young plants just after they appear and when they are least able to withstand an attack. At this season the adult beetles, which winter in the ground or under any good protection, are very hungry, and during one or two weeks feed very voraciously. At the end of that time mating begins, and they become less destructive and more particular about what they eat, often refusing to touch plants with foreign substances on them. The yellow eggs are laid in the soil near or around the roots, and if the earth is damp, the young larvae feed on the roots, vines or fruit that may happen to be near them. The new adults that appear later in the season also feed ravenously upon the vines and the fruit.

MEANS OF CONTROL.

(1) Trap Crops and Spraying.—It has been found that the beetles prefer squashes to other kinds of cucurbits, hence, before sowing the cucumbers or the regular crop, a considerable number of squashes should be sown around the outside of the plantation to attract the beetles. As soon as they appear, they should be heavily sprayed every few days with arsenate of lead, 3 or 4 pounds to 40 gallons of water. When the cucumbers or regular crop comes up, spray it with Bordeaux mixture and arsenate of lead of the above strength, repeating the spray several times until after the vines have begun to run. The Bordeaux is added chiefly as a repellent, since the beetles, after the first week or so, usually refuse to eat plants covered with it. Bordeaux also helps to keep off the mildew and gives vigor to the plants. Later in the year, squashes should be planted and left to attract the greedy new adults. These can then also be sprayed with the arsenate of lead, and many of the beetles will be destroyed.

(2) Burning Refuse in Autumn.—Advantage should be taken of the habit of the beetles late in the fall to congregate in great numbers on old cucurbit fruits and vines, especially where these are gathered into heaps. I have seen the beetles in thousands in such places on frosty mornings. If, then, the refuse be gathered into heaps after the picking season, on some frosty morning, and a covering of straw is thrown over them and set on fire, countless numbers of the beetles would be destroyed, and the number left for the next season thus greatly lessened.

(3) Coverings.—A very satisfactory method of protecting young plants in the spring, on a small scale, is to cover them. For this purpose, cut a barrel hoop in two, so as to form two semi-circles. Then place one of these over the other, and at right angles to it, and insert the ends of both in the ground. Two bent wires will, of course, do instead of hoops. The frame thus made should be covered over with gauze or some such material and a little earth thrown up around the edge so that no beetles can get under. It must be put on the plants before the beetles get any chance to attack them, and can be left on until the plants are too large for such limited space. This affords a complete protection, but is hardly practicable on a very extensive scale.

Humus and Potatoes.

From Reprint in Ontario Vegetable-growers' Report.

The control of moisture in land to be planted in potatoes is of great importance, and cannot be secured by drainage alone, as it is largely a matter of the humus content of the soil. One hundred pounds of clean, dry sand will take twenty-two pounds of water to saturate it; 100 pounds of our ordinary clay loam soil, perfectly dry, will take 56 pounds of water before it will become saturated, while 100 pounds of perfectly dry leaf mold soil will take 196 pounds of water to saturate it, or nearly nine times as much as it takes to saturate an equal number of pounds of sand, and three and a half as much more as it takes to saturate our ordinary clay loam soil. With a soil deficient in humus, no amount of cultivation or commercial fertilizer in a dry season can make it produce a paying crop of potatoes, while a soil filled with humus can be made, by cultivation, to produce a paying crop even in a season of practically no rain. A clay loam soil filled with humus can be worked much more quickly after a heavy rain than the same soil which is deficient in it, and the capacity of the humus-filled soil to hold moisture is so much greater that, with intelligent shallow cultivation, a good crop is practically assured.

The control of moisture is not the only advantage of having a soil filled with humus. The rock-formed soils of the eastern portion of our country are filled with mineral plant food. It is claimed by leading scientific men that the top eight inches of heaviest loams contain potash enough to raise maximum crops from 200 to 400 years, and phosphoric acid from 150 to 300 years, but they are locked up in an insoluble form—a wise provision, indeed, to prevent man leaving the face of nature a barren waste. Fill a soil with humus, which is decaying organic matter, and the acids formed in this process help to break down and set free some of this locked-

up plant food. The second eight inches contain as much, or even more, mineral plant food than the first. The productiveness of our soils depends more largely upon their humus content than upon any other one thing, and one of the first objects of the potato-grower should be to fill his soil with this decaying vegetable matter.

THE FARM BULLETIN.

P. E. Island.

A late spring here; the 13th of April, and navigation not open yet; snow is all gone, but bays and rivers are still solid, and fit to travel on. This date last year the land was pretty well dried up. It looks now as if the new clover had wintered well, as there has not been much thawing and freezing to throw it out; but it is not past all danger yet. Fodder is plentiful, and all kinds of stock are in splendid condition.

The dairy companies are getting fitted up for business; makers are all engaged, and contracts for milk-drawing are let. Pasteurizing of whey will be more general this year, as it has given patrons the best of satisfaction when properly done previously. We look for a prosperous season at the dairy stations, on account of feed being plenty and the milking stock beginning business in such fine condition. Cream shipments to Boston from here are likely to increase this season, but most of the milk will, as heretofore, be made into cheese.

The Government here propose to spend \$6,000 in importing pure-bred Ayrshire cattle, to be sold at auction to the farmers. This is supposed to be for the encouragement of the dairy business. Some farmers think that it would be better to invest in Holsteins, as there are herds of this breed here now that are giving grand results in the dairy, and many of them on record as great producers. We have some splendid foundation stock in Holsteins here in the herds of Walter M. Lea, Fred Clark, Gavin Harding, Melbourne Laird, and others. Holsteins are becoming very popular here, being heavy producers, large in size, and having good teats. The Ayrshires are not so popular, nor will be, till their breeders get them back to the old utility type, and give us less style and larger teats. It is to be hoped that, if our Government make an importation of Ayrshires, they select the useful type that will be popular with the dairymen.

We notice that farmers are paying much more attention to cleaning their seed this spring. Separators for that purpose are being used more extensively. Farmers are learning that good plump, sound seed will pay a big profit over the ordinary kind. More farmers are using formalin to treat seed for smut, as those who have used it report excellent results.

Markets are not quite so good here as last year. Pork is worth 7½c. dead weight, about 3c. less than this time last year. Beef is about the same. Easter cattle sold for \$6.50, live weight, but good butcher's stock would not bring now more than \$5.75. Oats are worth 38c.; eggs are 15c.; horses are up to the top notch, and are being bought up for export; heavy ones, from \$185 to \$250. Potatoes are worth about 50c., but the crop last year was so small that there are very few to export.

The appointment of J. H. Grisdale as Director of Experimental Farms gives good satisfaction here. He will make a good successor to carry on the work so well inaugurated and ably carried out by Dr. Saunders. The new Director being a practical agriculturist, along with his scientific training, will add to his qualifications. He is personally well known to many of our foremost stockmen and farmers, and, on behalf of them, we tender him our congratulations on his appointment. W. S.

Nova Scotia Notes.

The Maritime Horse Show, which was held in the Winter Fair Building, Amherst, N. S., was a splendid success. The display of carriage and saddle horses was the outstanding feature of the show, though the Clydesdales and their grades were both numerous and of high quality. Several sales were made.

Prices of most kinds of farm products are high, especially good horses and dairy cows. Hay, which is one of the chief market crops here, is very low; practically no sale, and large quantities will be summered over. Potatoes are very high, and are being imported from Prince Edward Island.

April has been fine and cool, and, as we had very little snow and a steady, cold winter, there is a lot of frost in the ground yet.

A dozen or so Institute meetings have been held in different parts of the country during the last two weeks, and have been fairly well attended. C. H. BLACK.

Cumberland Co., N. S.

The Sayings and Doings of "Donald Ban."

By Peter McArthur.

Donald Ban stopped on the doorstep to shake the water from his felt hat and his overcoat, and to stamp the mud from his boots. The door opened at once.

"Come in out of the rain, you foolish man. Come in and get on dry clothes, and drink a hot cup of tea. What possessed you to go to the post office on a day like this?"

The old man sighed contentedly as his wife hurried him into the bedroom and made him change his clothes, while she scolded him as he deserved. Finally, when he was sitting before the kitchen stove sipping the hot tea, he undertook to face the storm.

"Why did I go to the post office in the rain?" he asked rhetorically. "I went because I am a slave to the newspaper habit. I must have my paper every day now, just as much as a smoker must have his pipe. It's awful, Janet. I know it is the ruination of me, but I can't help it. I have tried to break myself of it, but it's no use."

He sipped his tea with enjoyment. "Every day I have to get my little pinch of editorial and nip of foreign news and dose of politics, or my nerves will be all on edge. I wish I could get over it, but I am afraid I am too old now. I must have my paper every day, and when I get too old to go for it, I am afraid you will have to get the rural delivery for me, John."

"Grandpa!" came a little voice at his side. Donald Ban put down his cup and saucer and picked up his tow-headed grandson.

"Well, well! If I didn't forget all about your candy."

The little face suddenly grew very long. "I mean I forgot to give it to you, not that I forgot to buy it," and he went into the bedroom to get the little bag of hard-tack. "There you are!"

"Thank you, grandpa." "That's the way I like to hear a boy talk. Ah ha! I thought you would find that your granny has a sweet tooth." The little boy passed the candies around, and John laid aside the agricultural report he was studying to munch a bull's-eye and join in the conversation.

"Is there any sign of it clearing up?" "Clearing up? With that east wind blowing? Nonsense. We are in for a spell of wet weather of the kind I remember hearing about when a boy. We were having a very wet spring, and one of the elders asked the minister to pray for dry weather. 'I will not,' snapped the minister, 'until the wind stops blowing from the east. There's no use praying for fair weather until the wind changes.'"

The rain lashed against the roof and windows, and, in spite of everything, something of the cheerlessness that prevailed outdoors found its way into the house.

"I suppose this rain will do a lot of good," grumbled John, "but I wish it hadn't come until at least part of the seeding was over."

"Oh, well, there's no use grumbling. I suppose a storm like this has its good side to it, if it were not too wet for one to go out to hunt for it," said his father. "I found two new leaks for it, in the roof of the stable to-day, and when I was in the roof of the stable to-day, and when I was coming along the road, I noticed that the tile drain in the back field is stopped up. I guess one of the uses of a storm is to shew us some of the things that need putting in order as soon as the weather dries up. That reminds me that there is one thing that you had better get advice from some of the experts about. The council had the main roads gone over with a scraper or drag, as they call it, and, though it seemed to do a lot of good at first, the roads were worse than ever to-day. They had scraped the mud from the sides of the road to the center, and in that way they put a few inches of clay on top of the gravel. Now, the split-log drag is certainly a great thing for mud roads, but I think the gravel should be handled in a different way."

"I'll not have much trouble getting you the expert instructions on that," said John, as he went to the book-case and pulled out a blue book. After turning over the pages, he finally read from the regulations of the Public Works Department, with respect to Highways:

"Where roads have heretofore had gravel or broken stone placed on them, they should be reconstructed or repaired by cutting off shoulders with a grader, and adding a sufficient amount of gravel or broken stone to fill ruts, depressions, and properly crowned, to make a road sufficiently strong to accommodate the travel. The sod and soft material is to be thrown outward, never drawn to the center. See that old gravel and old stone roadbeds are not injured by being covered with earth from the sides."

"That's plain enough, isn't it?" "Of course it's plain enough; almost as plain as the mud that is on the gravel roads to-day. Why don't the council pay attention when they have instructions like that given to them?"

"Perhaps they are opposed to book road-making just the same as most of them are to book farming," said John, with a smile.

"Humph!" said Donald Ban, "if you get along well with your book-farming this year, I'll see some of the folks and have you put in the council next year, so that you can give scientific attention to the roads too."

Before they had time to follow the argument further, and indulge in the dangerous pastime of having a dispute on a wet day, when people's tempers are always at their worst, there was an interruption.

"Grandpa," piped a little voice from the window, "where does the rain come from?"

"From the clouds, laddie, and the clouds come from the lakes and the oceans, where the sun draws up the water."

"Oh!" said the little boy.

"Is that a sample lecture?" asked John, remembering what his father had said some time ago about having a college that would be conducted according to the questioning of the child.

Not exactly. That is the kind of answer I give in self-defence. When he asks me a question, if I do nothing more than answer it, he is always ready with another, and keeps it up till I have to confess that I do not know. When I answer more than he asks, I give him something else to think about, and then he leaves me alone for a while. When we were working in the garden the other day, he cornered me a dozen times. For one thing, he wanted to know why the water ran out of a puddle in the little ditch I made for it."

"And I suppose you explained the law of gravity to him?"

"How could I explain to him what I don't understand myself, and, if the papers are to be believed, the college professors don't understand it very well themselves. I see that a big professor in the States is saying now that, instead of being drawn towards the earth when they fall, things are pushed towards it. But that is neither here nor there. I couldn't explain it to him either way. Then he got asking me questions about the sun, and I tried to tell him that the earth goes around the sun, instead of the sun going around the earth, and I got myself so mixed up I didn't know what I was talking about. Though I have been hearing that all my life, I don't understand it, and I don't think many other people do either. We know that the earth is round, or people couldn't travel around it, but why it doesn't fall off into space is what beats me."

"Then the college hasn't been much of a success, has it?"

"Indeed it has. The questions the little boy asked me made me understand how little I know about anything. I may know a few things, like 'A change of pasture makes fat calves,' and things like that, but that is all. We need the questions of children to make us understand what a mystery life is, and how mysterious everything in the world is. Because we know enough to plant seed and reap the harvest, we sometimes get to thinking that we know a lot, when the truth is that we know nothing of the things that are worth knowing."

"Grandpa," came the little voice again, "what makes the cabbage in this box grow?" He was examining a box in which cabbage plants were being started.

"You had better ask your Uncle John. He has been to college, and he ought to know."

But John was too wise to undertake the task. Instead, he got the little fellow's mind off the subject by teaching him how to "ride a cock-horse to Banbury cross." Then he got out his jackknife, and proceeded to put in the rest of the afternoon making a kite for his nephew, while Donald Ban read the newspaper.

Canadian Beet Sugar.

The reports for the three beet-sugar factories in Canada for the year 1910 show that the total product of beets grown and manufactured into sugar was 67,373 tons. The area planted was 9,350 acres, but, owing to drouth in Alberta, this area was reduced by 1,700 acres, and the yield per acre was 8.80 tons. The price paid to growers was \$383,565, being an average of \$5.69 per ton. At the Raymond factory it was \$5; at Wallaceburg, \$5.70, and at Berlin, \$5.85, per ton. The sugar content at Berlin was 16.89 per cent.; at Wallaceburg, 15.6 per cent., and at Raymond, 15 per cent.; but the actual yield of granulated sugar at the mills was about 2 per cent. less. The Berlin factory gave a sugar product of 5,198,175 pounds; Wallaceburg, 11,348,052 pounds, and Raymond, 1,202,000 pounds, which is a total of 17,748,227 pounds, or 8,874 tons. The value of the crop to farmers per acre was \$52.64 at Berlin, \$51.30 at Wallaceburg, and \$34.50 at Raymond.

Making the Dark Side the Brightest.

By Jack Miner, Essex Co., Ont.

As I was educated for ditching and cutting cordwood, I will ask the readers of "The Farmer's Advocate" to please make due allowance, while I endeavor to give the farmers' boys a little encouragement (founded on experience only) in regard to the above-mentioned subject. About one year ago, some of the readers of "The Farmer's Advocate" will remember that an account was given of a wild duck migrating from my place, and a few weeks later being shot in Anderson, S. C., and that the aluminum band containing my address, taken from its leg, was again in my possession. The publication of this story caused a number of boys to write to me, and I promised to give them a wholesale answer in this journal.

Well, the first pet I can remember having was a young blue jay. I was, of course, very anxious that he should live, so I filled him to the top with fish-worms. The next morning the blue was there, but the jay was gone. The next I have any recollection of was when father took our pet opossum by the handle and wound it around the corner of the old stable, to settle a quarrel which arose between my brother and myself over its ownership. I remember we started one spring with a pair of white rabbits, and when fall came we had every box on the premises full. Even father's old wagon box was turned upside down, with a snarl of rabbits under it; and when he used the box, our troubles were many. As we knew how to set traps around the rabbits' pens, I am strongly of the opinion that some of the neighbors' cats haven't got home yet.

How well do I recollect seeing the wild geese and hearing their "Honk, honk," as we strained our young eyes to see them "way up there," and very often had to look twice before seeing them on their migrating trips as they passed in spring and fall over the good old State of Ohio. And oh! how I used to stand with clenched hands and wish I were a man, so I could follow them somewhere and secure one.

In April, 1878, the family having moved, I was liberated in this dear old Province of Ontario (a sportsman's Paradise), there being twenty acres chopped down, but not logged up; a small, new log-house, not chinked; father mother, and ten healthy children, five boys, and five that were not; as happy as rich people. In fact, we were rich, and didn't know it. Now, boys, the fun began. All kinds of game, and such a variety of pets as we had—squirrels, coons, foxes, crows and ravens. And I even got a nest of young hawks, and kept them until father found it out. You know, in those days there was one day in the week that we did not work, and we made every minute count; and, although we had miles and miles of woods to rove through night and day, yet my ambition was a little higher. So I secured a pair of tree-climbers, and then there was no tree high enough for Mrs. Crow or Mrs. Hawk to raise their young so as to be out of my reach.

Well do I remember shooting my first deer, and how I burglarized the top shelf of the pantry to get one of mother's pewter spoons. The spoon had a great handle to its history, being handed down from somewhere this side of Noah. I pounded it to remove the ancient look, melted it, and ran seven small balls, while my unsuspecting mother was looking at the operation of melting and moulding. By daylight the snow had ceased falling, and I put the seven balls in the thumb-hand barrel of the old shotgun, and started on my first deer hunt, and by noon I was back with a fine deer, and if I had had a melted spoon in the other barrel, I surely would have killed two.

Now, it is hard to break away from the memory of sweet boyhood days, and slip over twenty-five years of time. However, I must; but, before doing so, boys, let me call your attention to your present responsibility. It may be that you have two or three younger brothers. If so, remember that you have probably more influence over them than your father has. They will tell

you things that father never hears. These boys love you best of all. They think you can do even more than father; and so you can, with them, in certain ways. Such being the case, they are the best chums for you on earth. Then, why do you constantly want to be with others, and leave them behind to associate with some worthless lads who would only laugh at their disgrace or downfall? It may be they are going to the city on some excursion, and they are fifteen or eighteen years of age, and you are twenty-one. How can you stand it to see your innocent, rosy-cheeked brothers run their chances with that bad, worthless young man as their leader? You know him well; you have heard his conversation and garbage stories at the threshing bees, etc. But there is a comparison still worse. He is a married man, with poor little children, and a broken-hearted wife, all suffering from his ways. This inhuman brute seems to delight in befouling the minds of young fellows.



With one of my pets in the back yard on a bright morning in March.

A word now to you younger boys. Why not go along with your big brother? I know his ways will seem strange to you at times, and you will wonder often why he acted so; yet in time you will understand. We know now, since that boy got drowned, just why mother did not allow us to go to the lake and dive off the dock. Yes, it took time to explain her loving ways. My brother Ted was the dearest of all mankind to me, he loved me more than he did life, but his actions were strange to me sometimes, he being four years older. Later on in life, I had no sooner started keeping house that he even left his own parents and came and lived with me. Nine years rolled by, and the evening of October 7th, 1897, found us both standing with aching hearts over the form of my only little girl, watching her pass into everlasting glory. Boys, this was hard on me. I had never stood face to face with death before. Father, mother, and ten children, the youngest now twenty years old, and not a break; and to see my four-year-old darling go from me seemed unbearable. Just then Ted came around on my side of the bed, put his strong arms around my neck, and his hand on my opposite shoulder, and there we stood, two men as strong as horses, yet helpless, and between his sobs he said, "Don't cry, Jack. Jack, there is no one depending upon me in this world, and if I could take her place I would willingly do so, and you could have your little girl."

Well, boys, for about fifteen years I felt that I had no time to care for pets, as I had my hands full in making the dark side of life the brightest financially. But, for the past eight or ten years, I have again had some nice pets, and, in order to give you the advantages of my experience, I will offer a few suggestions—not for you to start where I left off, because that time

hasn't come, but so that there will be no handicap from now on.

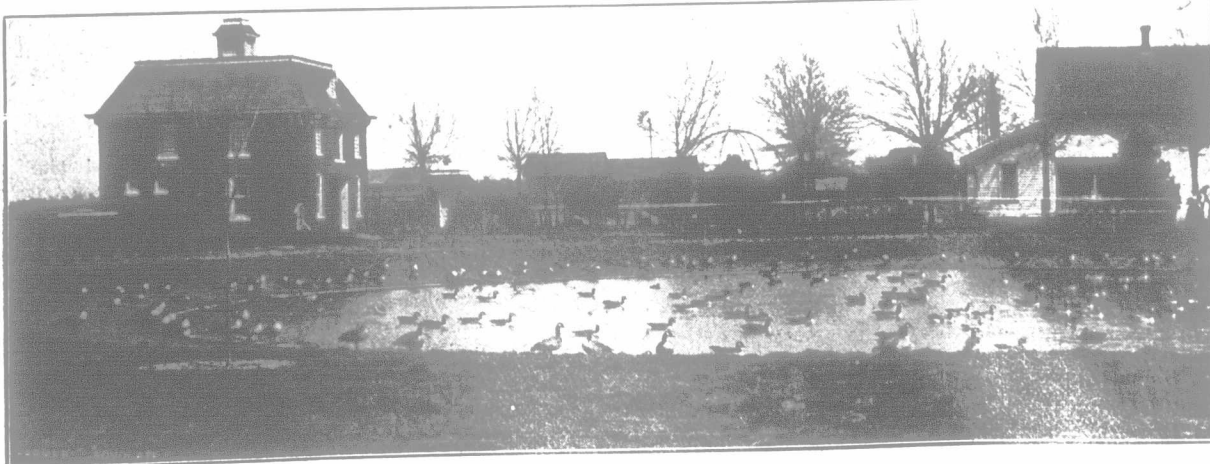
I have no four-footed pets now, but quite a variety of birds—golden, silver, and English pheasants, wood ducks, gray ducks, black ducks, pintails and mandarin ducks, and thirteen wild geese (pets), and hundreds of pet wild geese that don't belong to me. Now, five years ago, just west of my house, was a piece of ground that was a sore-eye to the neighborhood. We had left quite a cavity where we had taken the clay out, and all kinds of noxious weeds grew there, and snakes were about the only living things that existed. When a person called to see me, I was always ashamed of this snake harbor, and when I would think of my new home (that I am still planning), I would always figure on having my rooms on the east side, so the morning sun would shine in, and I also planned the breakfast-room on the sunny side. These photographs, numbers 1 and 2, will show you which side I will have my breakfast-room on now. Wild water-fowl swimming and quacking; wild geese honking; pheasants crowing and strutting over the lawn, showing their plumage of so many gorgeous colors; and when I open the door in the morning they will all salute me in some voice or other, as much as to say "Good morning!"

I tell you, boys, it makes the dark side so bright that I would be perfectly willing to stay here longer than it will take my poor mother to find her great-grandmother's pewter spoon. Now, it may be that there is some basin or slough on your home farm. Father may have bought the land a little cheap on that account. If so, you have a pleasure-ground that will afford you a great variety of sport, and very little work. It will be the spot that will attract more attention than any other place in the neighborhood. During dry weather, scrape about one-quarter of an acre for a skating-rink, then lay a drain to some spring; plant a row of spruce trees about ten feet apart around it, far enough back to grow well; and put a fence around it to keep stock out. The fence can be fastened to the spruce trees in about ten years, then the cover will soon be O. K. for game. Feed the ducks in the spring, and don't allow any shooting near. Ducks will soon get tame, and will nest there, and one flock will bring another. Feed wild geese away back where they are most likely to alight. Keep the dog away from them. Never walk straight at them; never stand and look at them. After they have got tamed down, call to them when they fly by and around you, and they will soon know your voice. Then you can move their feed, and they will follow you. Never try to drive them, and when you feel that you want to shoot them, never, never, shoot into the whole flock, but catch a small bunch alone when the others are away. Pop the ones that are there, and never shoot at them when over thirty-five yards away. Always approach them with the wind in your face. They will rise against the wind, and give you their backs to shoot at. Never shoot at a goose's breast. Never shoot at them before sunrise or after sunset, as a wounded goose will sometimes fly a mile, and you can get him if you see him go down. Always shoot to kill, and not to scare. A dead wild goose tells no tales. Keep your head on top of your backbone, and be very careful with your gun, and obey the one man that has charge of you young shooters. There is nothing much nicer than about twenty-five good fat wild geese every season, distributed throughout the neighborhood.

Boys, the poorest management I know of on earth is carried on by some men who call themselves sportsmen, shooting every bird in existence, and then wondering why they are not more plentiful the next fall. Think of shooting at wild geese and ducks entirely out of range, and, as soon as they alight, sending a ball screaming down the field (no possible chance of hitting one) just to scare them away, apparently afraid they will get a kernel of corn, and then expect them to come back. Say, if you went to a strange hotel, and before you had time to enter, someone dashed a dipper of hot water in your face, would you turn around and go back in? Not if you had been scalded as many times as some of these geese have been shot. The most of them we get have different-sized shot in them.

I have stocked this township fairly well with English pheasants, breeding them in captivity, and then liberating the young. These birds are like domestic fowls. One cock is enough for ten or fifteen hens. Yet men will shoot the hens, when either a deaf or a blind man can tell them apart. Boys, here is a good guide to success. Go exactly contrary to the majority of sportsmen, then you are on the right track, and, by helping the other fellow, you will secure help yourself.

A word now on the feed for young birds. When I was a boy, I fed fish-worms, corn, etc. Now, that is the proper thing to kill them with. But the best feed for birdlings is custard, one cup of milk to one egg (no sugar). A bad boy went past my place two years ago with a .22 rifle. The next day I chanced to look at the robin's nest in the spruce tree near my house, and one of the young robins was dead, and the other two just alive. They were not over one week old,



Miner's Pond, April, 1910. Showing Increased Number of Migrants.

but their stepmother, Jack Miner, took them in, and in less than two weeks they were hopping after me and the custard pail. It was laughable to see them flying after me. They were the sweetest pets of all; they stayed until October, and then they disappeared. A few days after I found them, I also found the old birds dead, with a bullet-hole in each one. I have seen thirteen full-grown quail fly into Mrs. Miner's apron for a little custard. Try it, boys. Be sure and never overfeed. If you will darken the nest where the old hen is hatching—ducks, pheasants, goslings, quail, etc.—until young are perfectly dry, she will not likely peck them. In raising wild birds with a hen, always pen young in with her for three or four days; then they will not leave her. Kill all lice on her while she is sitting. To those who have been inquiring about quail, I may say that I have none of my own, but I am feeding about one hundred in my woods. And the laws will not allow me to even catch you one out of season (this is a good law). Next November I will try to get a few.

Now, just a word of explanation re the photographs. In April, 1908, eleven wild geese joined mine. After feeding and petting them for about three weeks, we shot five, succeeding in killing the two leaders. The next day the six came back, and soon got quite tame, and came to the pond near the house. I got volumes of advice as to how to kill them. On May 15th they left for the north, and in March, 1909, thirty-two came back, and on April 9th photograph No. 1 was secured. This photograph has the thirty-two wild and my thirteen tame ones, which is the whole flock. On April 10th we shot ten, and then, later on, two disappeared. The other twenty lined up, honked farewell, and went north on May 1st. March 4th, 1910, they started coming back again, and in less than two weeks there were about three hundred here. We shot thirty-six, and on April 15th about sixty left for the north; and on the following day, April 16th, photograph No. 2 was taken. So, if you will add about 100 to those shown in photograph No. 2, you will have about the number that the twenty brought back. Oh, by the way, boys, if you have a business that will give one-half the protection that good, sensible game protection will, and if you want a pardner, I am your huckleberry.

Now, I am going to wait and see if the editor publishes this. If he does, I will tell you in the near future just how I am caring for the quail in my woods, and how you can have them in almost any part of Ontario, providing you will go to just a day or two's trouble. I said "trouble," but I mean pleasure.

Before I ring off, let me say one word to any boy that may feel that he is poor, and his chances are not equal to the other fellow's. I say, stop right where you are, and make that dark side of life the brightest. Remember, the best men this world ever knew were born barefooted. Let the world know you have a backbone right between your shoulders, and that you can look all men in the face. Don't forget this fact: roses will bloom and be just as fragrant for you as they will for our king, providing you will do your part. Remember, I am talking to live boys; advice is no good to dead ones. Success, you know, does not mean a big pile of dollars, piled up to drag the next generation down to ruin. No, indeed! If there is any boy that should have sympathy, it is the one who has too much money. Success means this: Is the world more cheerful, brighter and better through your existence? If not, you are a disappointment to the Almighty.

Antigonish Fair.

The sixth annual fair for the County of Antigonish, N. S., in March, was largely attended. The fairs are held under direction of the Farmers' Association for the County of Antigonish. The Association is assisted by the Provincial Department of Agriculture in providing the prize-money, and by the Seed Branch of the Dominion

Department of Agriculture in meeting the expense of competent men to judge the seeds and give addresses. There was a marked improvement in all lines of seeds, especially in seed oats. The people were surprised to see so many entries and such handsome specimens in the potato section, as potatoes were scarce during the winter months.

Addresses were made by C. F. Alward, of King's County, New Brunswick, who took a course in Ontario Agricultural College, and S. A. Moore, of the Agricultural College, Truro, N. S. They complimented the farmers present on their grand showing and success. Farmers' sons are taking a great interest in the annual fair and exhibitions, which will help to popularize the farm with them. Mention must be made of Rod. Chisholm, Lower South River, in winning three firsts and one second prize—very good for a first attempt. The silver cup, donated by James Broadfoot, West River, for the best exhibit of White Russian wheat and Banner oats, won in 1910 by Taylor Bros., Willowdale Farm, was this time taken by Ronald Chisholm, Briley Brook.

J. H. McC.

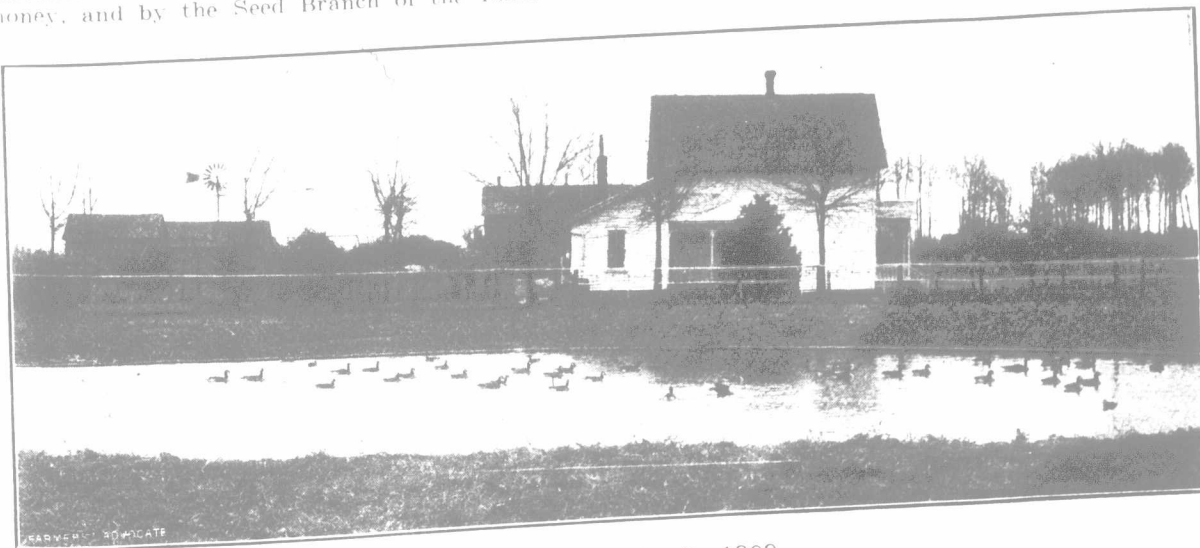


"The height of my ambition and sweet boyhood days fading, fading away."

The Boy, the Father, and the Farm.

"Subscriber," who has lived all his life on the farm, and also, by observation, knows whereof he speaks, writes "The Farmer's Advocate" on the perennial topic, "Why do Boys Leave the Farm." He calls particular attention to cases of young men, probably of age and married, with young children coming on, and yet not even receiving a stated wage or knowing what may come to them upon the father's decease, confessedly an unsatisfactory state of affairs. He concludes his letter with the following excellent suggestions in solution of the problem, how to keep boys on the farm who desire to follow that profession:

"First, we say, have confidence in and respect for your boys, if you desire them to have the same in you. Keep your promises with them, and encourage by taking them into your confidence, and give them some share or interest in the farm or stock as early as possible, and do not wait until they are old men before they can claim anything as their own. Do not keep your family in ignorance of your financial standing. If you have debts, mention them, and acquaint them of many of the little details of your business before your



Miner's Pond, April, 1909.

death; it's cheaper than finding out after, and more satisfactory. Make the work on the farm, and in connection with it as pleasant as possible. Associate and work with the boys as much as you can. Do not put all the dog work on the boys, and never forget to impress it upon their minds what a snap they have, compared with what you had at their age. No wonder boys leave the farm. Allow them to do part of the time the work they enjoy. Whatever kind of stock they like best, if you can afford to have it, get it, and allow them to attend to it. Give them the best farm implements you can afford to work with; it will discourage any boy to be obliged to work with cobbled-up rigging, and the hired man have a good outfit. Encourage them by being yourself tidy, but don't work night and day. Teach them to value stock and produce, buy and sell. Give them the best practical education for their business you can. Do not neglect making your will or having it made while in health, and change as often and whenever you think advisable, but do not load legacies for your son to pay, in addition to your debts, he will not have courage to attempt. Always supply the best farm literature you can afford. Read it yourself, and discuss with the boys. And if they have any fancy at all for farm life, I do not think they will likely leave the farm."

A Walk in Spring.

I took a walk along a country road one day in spring. Some men affect to despise this means of locomotion. I am sorry for them. But, with all due respect for their opinions, I would like, right here, to prevent any misunderstanding, to express the opinion that, with all man's inventive genius, he has never yet been able to devise a means of locomotion at once so enjoyable, so instructive, so practicable, safe and healthful as the means every normal man possesses, without any exercise of his inventive genius.

Not everyone can possess a horse and rig. A still smaller number can possess an automobile, and, besides the risks to life and property, the automobile rider cares not for the beauties of nature around him, but only for the rate at which he is leaving the miles behind him. Likewise, the bike-rider, hump-backed and red-faced, sees naught but the dusty road before him, and thinks of little but his rate of speed. The train must follow certain prescribed limits in its course, which is true, though in a lesser degree, of the methods of travel already mentioned, and the objection to speed and lack of time and opportunity for any meditative communion with nature applies also to it. Even flying aloft as a bird, though the exhilaration of speeding on the wings of the wind may be experienced, is not to be compared for safety and practicability and real enjoyment with the ages-old plebeian pedestrian method.

So I walked. The sun was shining brightly from a clear, blue sky. A gentle zephyr fanned the cheek and made mournful music in the tops of the pines. Here and there, on some northern exposure, a patch of snow, soiled almost beyond recognition, still lingered, but giving of itself steadily to form a little stream that trickled away to join some larger torrent, and so be borne on and on to join the mighty ocean's limitless, rolling tides. The grass in the fields was springing up through their matting of decaying vegetation, and showing a pure and undefiled greenness, promise of rich pastures in June. A little violet peeped out from a corner of the fence. The leaves on the trees were just budding out. All things were joyous and glad, in keeping with the spirit of springtime.

A ground-hog came out, blinking in the sun, sat up on his haunches, took a look at the passer-by, then, with a wild whistle of delight, disappeared again. A song-sparrow was perched on a hazel-bush, pouring forth strain of melody with a veritable abandon of delight. A red squirrel came dashing along the fence, as though the existence of a whole kingdom depended on his reaching his destination in the shortest possible time. He noticed a great biped standing watching him, and with an indignant chuckle turned and dashed up the side of a tree, as though in mortal terror of his life. He didn't go far. Stopping on one of the lowest branches, he proceeded to express his opinion of the intruder in most vigorous and expressive squirrel language. So expressive was his language, in fact, that I will not run the risk of shocking my readers' sense of propriety by repeating it. A very embodiment of concentrated energy and bottled fury he appeared to be as he stamped and fumed around there, just as though it was only by the exercise of the greatest self-control he could restrain himself from coming right down and engaging in mortal combat with his enemy. But, like many another creature, his greatest terror is his tongue.

I passed leisurely along, which is the proper way to walk along a country road. Dally, loiter, poke along, use any term you like, so long as it expresses delayed and loving motion. When you have found the word to your liking, suit your action to the word. If your business requires

haste, let me advise you to use some other means of locomotion.

I came to a stream, leading to a little lake nestling like a pearl in all its loveliness among the hills. I am not bound to follow any prescribed course, so I will turn aside and follow this stream. Its gentle ripple over the stones is music to my ear, sweeter and more soothing than the most melodious man-made music. I saw the little fish disporting themselves among the pebbles, their glistening sides flashing back the rays of the sun. From among the reeds surrounding the lake a bittern rose with a hoarse croak, dragging its long legs after it, and slowly tucking them up among its feathers. A flock of ducks, sailing peacefully on the lake, spied the intruder, and in a moment were away on the wings of the wind. They need not fear. I have no malicious intent against their lives. A muskrat came peacefully swimming around a little promontory, and climbed on to the top of his dome-like home, blinked, sat down, scratched himself, looked around, when his sharp, bead-like eyes spied the stranger trying to keep himself hidden. The next I heard was a splash in the water, and saw a ripple where this shyest of creatures had disappeared.

I stood and gazed long at the surface of that lake, so calm, so inscrutable, giving no indication of the multitudinous life below, with its many problems and mysteries. I would fain fathom its depths and mysteries, but there are many worlds of life and interest beyond this that I experience.

So the day wore on. I wandered through woods, across fields, by streams, up hill and down dale, without let or hindrance. The sun was sinking low in the west as I climbed the eastern side of a hill. When I gained the top there burst upon my vision a scene that has been, and will continue to be, while time shall last, the ideal and despair of painters, poets and artists of every description. The sun had run another day's course, and was slowly sinking, a magnificent ball of fire below the distant horizon. With Bishop Quayle, I would say: "I resent people running mad over carnivals and slighting the pageants of the morning and evening, worth a pilgrimage about our world to catch sight of once. A sunset in a decade! How thronged the way would be that led to its mountain; one in a week, who watches? The great pathos of our lives is that we have eyes, but see not; we have ears, but hear not."

When "Old Sol" had sunk to rest, I turned my steps homewards. I have had a good day. It has not been wasted. J. D. TAYLOR.
Waterloo Co., Ont.

New Jersey Record.

Brampton Lady George, bred and owned by B. H. Bull & Son, Brampton, Ont., on February 7th, 1911, completed a world's record for a Jersey heifer under 2 years and 6 months at commencement of yearly authenticated test. On February 8th, 1910, when two years and sixty-six days old, she dropped her first calf, and for 365 days her milk was weighed in accordance with the rules of the Canadian Record of Performance, the test being authenticated by the Record officers, her total record for the yearly period being 11,004.75 pounds milk, which yielded 536.045 pounds of butter. She dropped her second calf March 3rd, 1911, less than thirty days after completion of the test. In the Winter Fair test, at Guelph and Ottawa, she averaged 28.9 pounds milk per day for the three days of the test, the former being in December, the latter in January, when within 60 days of calving. Considering that Brampton Lady George had calved two weeks before being entered for test, that she was travelled to Toronto Exhibition, and the two hard winter trips, and that for eight out of the twelve months she carried a calf, hers is an exceedingly creditable record.

Cow Ties and Mangers—A Correction.

J. H. Grisdale, Director Dominion Experimental Farms, calls attention to an error in an article of his, headed "Cow Ties and Mangers," published in "The Farmer's Advocate" of March 23rd. That portion having reference to type "C" manger which read, "The cement manger, with the front or division between the feed passage and the manger, from 2 to 3 inches above the level of the said passage," should have read, "The cement manger, with the front or division between the feed passage and the manger, from 2 feet to 30 inches above the level of the said passage."

We are pleased to exempt the long suffering printers, at whose door it is necessary to lay such slips, by stating that the error in question was reproduced verbatim as received from, possibly Prof. Grisdale's stenographer, responsible.

About 1,800 persons have availed themselves of the Government Annuities Act, and \$1,000,000 has been paid into the fund.

Reciprocity Gives Better Markets.

Editor "The Farmer's Advocate":

There has been so much discussion of the reciprocity question of late that the average man is getting tired of it, and what is wanted now is, not more discussion, but action on the part of the respective Governments to bring the pact into existence and give it a try-out. There are, however, "interests" that think they may get hurt—if not now, later—and would like to stave off any change, and would "let well enough alone." But these same interests were but a short time ago crying out for more protection—a greater power to "bleed" the many, and make fortunes for a few. These "interests" know how to keep up their side of the question by the aid of some "smart Alecks" employed to do the talking for them. They would even try to make farmers believe that this lowering of the bars, giving us free entry to another market for our produce, will be an injury, rather than of general benefit. One thing is very certain: if there had not been a strong demand from the consuming public over the line that the tariff wall should be knocked down, so that they may obtain Canadian food products, there would not have been such an agreement made; at least, one so favorable to the Canadian manufacturers. No administration in the States would have proposed such a pact a few years ago. To obtain reciprocity, only a few years ago, would have necessitated fixing the tariff much lower on manufactured articles, as well as on food products. That would undoubtedly have been still more in the interest of farmers. Farmers have obtained such small favors from our legislators that we may consider it well that we get half a loaf. Much of the trouble is caused by the interested parties because they think that once the wedge is entered, the hammering will continue, until the whole wall is knocked down. There is no doubt whatever that there has been a shortening of the food supply in the American Republic, and there is also no doubt that the consumption is increasing much faster than the production of foods. Such being the case, Canada stands to get a present benefit and a growing market for farm produce, and what we should produce are those crops best suited to our climate and soil, leaving to more southern districts to produce what is more suited to their climate and soil. Then all are working with nature, and such will need to be done, if the teeming millions of the world are to be fed.

About the only one deserving of pity in this deal is the American farmer. He has had to carry the tariff burdens, and has been told, just as our farmers are being told, that building up the cities will make a great demand for his products; and now, just as he sees the plum ready for his picking, the consumers demand that the tariff against foods be lowered, and thus he gets no protection. Hitherto he has not benefited, though compelled to bear tariff burdens. Farmers can get no benefit from tariffs. When they produce more than their country requires, the foreign market fixes the price. When consumption stops exports, and prices get higher, the consumers demand the lowering of the tariff. No nation will stand for long a tariff that increases the price of food. So that farmers need not be deluded that they are going to receive a future benefit by bearing present burdens. Talking about burdens, it would seem that other interests consider it but natural to place the burdens all on the farmer. There are the meat-packers, for instance; they seem to think that prices for stock will go higher, and they will not be able to operate, or at a less profit. That is coolly asking the farmers to take less for their stock, in order that the packers may continue to make a few more millions. And so it is in other lines. There are people who seem to think it nothing but right that farmers should bear all the burdens, work hard, live poorly, and take less for their produce, in order that a few may ride in their automobiles, winter with the birds in the south, and fling away a few thousands in Europe each summer. Verily, they think "a sucker is born every minute."

To those who are acquainted with real agricultural conditions, this cry, "leave well enough alone," does not appeal. Our rural population has been decreasing, instead of increasing. With time, the land requires more labor to work it properly, but such is not being done, because there has not been enough profit to pay the necessary wages, and we have loss of fertility and a great increase of weeds, that is much worse. It is not only in the Western Provinces that farmers are "mining" their land; it has been practically worked out all over Canada, until much of the best land has been worked out. The same thing has been going on all over this continent to a greater or less extent. There must be a change. We are getting our food too cheaply, and, in

order to do so, the farmer has been taking too much fertility from the soil and not putting back enough. There must be much more labor put on the farms, if deterioration is not to continue, and more stock must be kept. That means more work and more money must be spent upon the crops. The only way more money can be spent by the farmers for labor, etc., is that they must get better prices, as no one will contend that farmers are making too much. To get better prices, farmers need free entry into the nearest and best market. By reciprocity, we lose no market, but we gain another good one.

Oxford Co., Ont.

GEO. RICE.

Oxford County Graft Case.

At the St. Thomas (Ont.) spring assizes, M. T. Buchanan, formerly warden of Oxford County, pleaded guilty to three indictments brought in by the grand jury. The first was for receiving two commissions of \$480 and \$260 from the Sawyer-Massey Co., on machinery sold the county council. The second was for inducing the county to purchase the Ingersoll and North Oxford road for \$2,000, far in advance of its value, by misrepresentation, he being the owner of the road. The third was for accepting a commission of \$340 from an agent of the J. I. Case Company for road rollers and other machinery purchased by the county. Counsel for prisoner announced that he would make full restitution to the county of all sums unlawfully received, and appealed for leniency. The crown council intimated that there was a willingness on the part of the county officials to accept the settlement. Chief Justice Middleton, in pronouncing sentence, enlarged upon the serious nature of the crimes, and said had a jury found him guilty he would have been compelled to sentence him to five years' imprisonment, without the option of a fine. In view of his age and other considerations, he allowed him to go on suspended sentence. The outcome of the case will be a severe warning against "graft" in municipal affairs.

Coltart vs. Winnipeg Exhibition.

Judgment has been given at Winnipeg by Justice Prendergast in what is regarded by exhibition managers as a test case. The plaintiff, Coltart, of Beulah, Man., in 1909 made an exhibit of Japanese spaniels at the Winnipeg Industrial Exhibition dog show, where they unfortunately contracted distemper, from which, subsequently, 24 died and 3 were permanently injured. Damages were claimed at \$2,525, and \$200 for medical and nursing expenses, on the ground of negligence on the part of the exhibition authorities, who claimed, however, that plaintiff accepted the conditions laid down in the rules and regulations of the show. In concluding his lengthy review of the evidence, the justice held that the defendants had exercised the reasonable care that they were bound to use, and dismissed the action with costs. Dr. Bell, the general manager and secretary of the exhibition, is of the opinion that had a case like this gone against the association, all shows with which are associated stock, poultry, dogs, etc., would be greatly handicapped, and, in fact, boards of directors made liable for damages due to diseases breaking out, over which they had no control.

New Superintendent B. C. Experimental Farm.

P. H. Moore, a native of Nova Scotia, and graduate of the Ontario Agricultural College, has been appointed superintendent of the Dominion Branch Experimental Farm at Agassiz, B. C., to succeed Thos. Sharpe. At the first of April, this year, Mr. Moore finished a year's service with the Provincial Department of Agriculture as Dairy Commissioner. Wishing to get back to the land, he accepted the position offered at Agassiz, and is planning an energetic course of procedure, with increased attention to live stock. The farm is being put under a four-course rotation, and an inexpensive though modern cow stable is being built. A small, up-to-date dairy will also be erected, and a herd of 40 or 50 good grade Holstein cows put in. A first-class bull will be used, and the herd bred up gradually, putting the whole thing on a farmer's basis. Mr. Moore combines with experience and native capacity the enterprise and enthusiasm of youth, and should accomplish good work in the interests of British Columbia agriculture.

Foot and Mouth Embargo Removed.

Official advice from Dr. J. G. Rutherford, Dominion Veterinary Director-General, states that the restrictions imposed upon the issuing of permits for the importation into Canada of cattle, sheep, other ruminants and swine from Great Britain, by reason of the existence of foot-and-mouth disease in that country, have now been removed.

A Home of Their Own.

Editor "The Farmer's Advocate":

Reading "Farmer's Son's" letter, in your issue of March 16th, recalls by-gone memories of my long-lost youth, when I, too, was not enamoured with farm life. I longed for a life of more change and excitement, where I would have a chance of winning distinction. I think that my father read my thoughts, for, though I had not complained, one day he spoke to me on the subject. He said: "Fred, I want you to be a farmer. You are my oldest boy, and should anything happen me, who but you could take my place and care for mother and the rest?" These words made a deep impression on my mind. They awoke in me a consciousness that a great responsibility rested upon me, and that I ought to be prepared to take it up; and though at times afterwards the old longings would return, I had gotten a view of the nobility of the life that lay before me, and I entered more heartily into all farm operations. It was about this time that the Canada Farmer was first published (at The Globe office, I believe). My father was one of the early subscribers, every issue of which I read with increasing interest. It taught me that farming was a science, and that it provided a field wide and deep enough to engage the best minds. It was then that I learned the most valuable lesson of my life, viz., that it is a low aim to live for wealth; that health, contentment and domestic joy; that to be honorable and useful and beloved—these things all are as far above mere wealth as Heaven is above earth, and are the only things worth striving for. I had now found the key to happiness, and year by year fresh sources of joy were opened up for me. Many years have passed since then, and I have tasted all the disagreeable things in connection with farm life, and I can truthfully say that, could I begin life again, I would choose to be a farmer. It is quite true that there is more money in almost any other calling, yet it is no less true that farmers as a class are the most substantial and secure. The man with a well-tilled farm and substantial building is a king, upon whom all the forces of Nature wait. The woods, the hills and valleys are the boundaries of his kingdom, and all the charms of Nature which the city man longs for are his to enjoy in the fullest measure.

The healthy mind does not crave excitement, but rather delights in opportunities for contemplation. Someone has said that three things are necessary for a happy life, viz., "Something to live for, something to hope for, and something to love." There is wisdom in this saying. We cannot see a better calling than farming to promote these things. There are many causes why young people leave the farm, but we consider the chief one to be the natural desire to have a home of their own. To the majority of farmer's sons this attainment seems a long way off. Nature pleads, and will take no denial, hence the tie to the farm is broken, and some trade or occupation is chosen where a good wage is paid, a home is set up, and "Two lives are made fast in one with golden ease." They have entered the gateway to a happy life, and they have no regrets over the step taken. We consider that farmers generally are remiss in their duty to their sons in this respect. They too often look upon them as stock they have raised, with much care and expense, and hence have a right to their service. This is a wrong idea, and contrary to reason and Scriptures, which teach that parents should live for their children, and not the children for the parents.

As Dugald says, in a recent issue of "The Farmer's Advocate," young men are shy to speak of these things to a parent. A wise and manly father should frankly discuss this subject with his sons, and should let them know that their well-being is his first thought. We guarantee, if this is done, the boys, in the majority of cases, will enter cheerfully into all farm work, and the time will pass pleasantly by. Farmers, as a class, while possessing valuable property, do not have much ready money, and it requires money to start a boy on a farm, hence the task seems hopeless, and boys are often encouraged to try something else. Where there are only one or two boys in a family, they should be given a moneyed interest in the farm at the age of twenty. By adopting a system of intensive farming, the ordinary farm income may be doubled. Where there are many boys, they may be put on rented farms, on a small capital; or, if they are boys of the right stamp, they can easily get a good farm to work on shares. There are many who would be very glad and would prefer to let their farms on shares, rather than rent them. In short, there are openings everywhere for farmers' sons who have push, intelligence and ability. Without these qualities, they will not succeed in any calling. One thing is very clear—that is, that farming is going to be more and more profitable, more interesting, and less laborious. Farm values and rentals will increase as prices of food-

stuffs advance. Should the reciprocity treaty come into effect, it will give a wonderful uplift to agriculture. The widening of our markets will assure us a demand for all that we can possibly raise. This will remove the fear, long felt, of glutting the market—a fear which has been a hindrance to progress for several years.

In conclusion, we would say to the many boys who read "The Farmer's Advocate," don't leave the farm to be a servant to someone else; be your own master, and get all the profit of your labor. Remember, on a farm you own a business; when working for someone else, you own nothing. No work, no wages; and if misfortune befall you, you will find the world cold and unsympathetic, and you will be pushed aside by stronger and abler men. A farmer is always sure of a good living, of enjoying the company of his family, of living in the sunshine and open air. These things have much to do in promoting a long, happy life. F. FOYSTON. Simcoe Co., Ont.

Square Pegs in Round Holes.

Editor "The Farmer's Advocate":

Something of a discussion is going on in the columns of your paper on the subject of "Farming vs. Railroading," and the weight of opinion seems to be on the side of the defenders of the farm. Of course, the case is actually one of "The Farm vs. Any Other Reasonably Rewarded Occupation," as railroading can of necessity afford employment to but a comparatively small proportion of the young men who leave the farm. But the case, as it appears to me, is just this: in the first place, some of the boys of the family have to leave the farm. Say, on an average, that there are three boys in each farmer's family in our country. Two of these must of necessity seek some other occupation, as it isn't likely that the farm will support a greater number of individuals in the next generation than it did in this.

But, in the next place, we have to deal with the boy who might stay on the farm, but who doesn't want to. The remedy is not far off. Let him go. If he is not as well fitted for another occupation as he is for farming, he will soon find it out, and will likely return to the farm of his own accord, and his chance of making a success along agricultural lines will be much better than if he were working in a discontented frame of mind, as he would be had he not seen something of the world, and found out the comparative merits of the different callings of mankind. Should it so happen that this individual should find a trade or profession to his liking other than farming, isn't it better to make even a good lawyer or preacher out of him than a poor farmer. Our country gains no strength from men who are not a success in their particular line of business.

We all know cases of men who would have made first-class carpenters or machinists, who are not serving any useful purpose on the farm, unless it be to stand for an example to other farmers in the line of how "not to do it."

I have seen men who I honestly believe would have made first-class agricultural college professors, or even editors of some agricultural papers, who were working out a miserable existence on a run-down farm, simply because, while they were long on theory, they were short on the qualities that go to make the practical farmer. There is no use putting a square peg into a round hole, even if that hole is the farm. J. E. M.

The Pulpwood Question.

Editor "The Farmer's Advocate":

On page 673 of your issue of April 13th you inform a correspondent who asks "To what extent and from what lands pulpwood is to be allowed free into the United States by the new reciprocity trade agreement?" that "By a provision of the trade agreement pulpwood was to be allowed free into the United States at such time as the Provinces remove all export restrictions upon it."

There is evidently some misunderstanding here. There is no import duty or other restriction upon pulpwood entering the United States, and has not been for some time. The Governments of British Columbia, Ontario, Quebec, and the Federal Government administering Federal lands, have, however, enacted legislation that all timber cut on Government-owned lands under their jurisdiction shall be manufactured in Canada. This prevents the exportation of pulpwood (which is unmanufactured wood) from practically all timber lands in British Columbia, Alberta, Saskatchewan, Manitoba and Ontario, where there is a very small acreage of privately owned timber lands, and from all but about 8,000,000 acres in Quebec. During April there has been passed a law in New Brunswick preventing the export of pulpwood from all public lands for which the licenses may be issued or renewed hereafter. As the half of New Bruns-

wick is privately owned, and nearly all the rest covered by licenses which have several years to run, this legislation will not materially affect the export of pulpwood from that Province for some time.

What the trade agreement now before the country does provide is that wood pulp, newsprint paper and other paper, and paper-board, manufactured from mechanical wood pulp or from chemical wood pulp, if valued at four cents per pound or less, shall be admitted to the United States free of duty, on the condition precedent, that no export duty, export license fee, or export charge of any kind, or any prohibition or restriction in any way of the exportation, shall have been imposed upon such paper-board or wood pulp, or the wood used in their manufacture. Where such restriction has been imposed, a duty is charged by the United States.

Should the trade agreement be adopted, it appears that the situation will be this: Canadian Governments will prevent the exportation of pulpwood from all lands excepting a very small area in Ontario, 8,000,000 acres in Quebec, one-half of New Brunswick, and all of Nova Scotia. The United States will charge the customary duty on all wood pulp and paper, except that valued at four cents a pound or less, which originates on the lands specified above, and which is consequently allowed to enter free of duty. As before, all pulpwood will enter the United States free of duty. H. R. MacMILLAN.

Encourage the Boys to Marry.

Editor "The Farmer's Advocate":

One reason why the boys leave the farm is because they are discontented. They want a chance to save money, and many of them don't get any to save or spend. They are supplied with board and clothing, and that is about all. Their fathers seem to imagine that is all they require. They intend to leave them something when they die, but they want to hold on to their money or property as long as they can. But the boys want something now. They would like to bank some money every year. Every ambitious boy wants (or should want) to save money. Who can blame him for that? If their fathers would give them a chance, they would likely remain at home, instead of going out West.

Another reason is that many fathers are too bossy. They act as though they "knew it all," and their sons knew next to nothing. Now, boys don't like to be treated thus; it makes them discontented. When a boy arrives at years of maturity, he ought to be capable of managing the farm work. I have in mind a farmer who has given his son the reins, and lets him use his own judgment in everything pertaining to the management of the farm, stock, etc. One of the son's sisters told a friend that they were saving far more money since her brother had taken charge than they did before. The father is a slow, easy-going man; the son is ambitious, and believes in up-to-date methods and go-aheadativeness. He carries off prizes at the exhibition every year. His parents are justly proud of him. After his parents die and his sisters marry, he will probably take unto himself a wife. The large majority of parents seem to expect too much of their children. They haven't enough patience with them. Scolding and fault-finding only discourages them, and they leave the home never to return again. We would strongly advise farmers to try the magic power of love and praise. Of course, children will sometimes happen to forget something or make a mistake, but, pen to forget something or make a mistake, but, remember, we do so ourselves. Don't expect them to work for nothing. Give them something of their own, and when they try to do their best, give them a few words of praise. It will do them so much good. Perhaps your boy wants to get married. That is only natural. His father married, and how can you blame the boy. You may think that he doesn't need a wife, but, you know, opinions differ. Let the boy marry if he wants to. There are too many old bachelors. If you are afraid that the women will fight or disagree, divide the house. Won't that be a good arrangement? Let him share in the farm now; don't keep him waiting. Surely that will be better than letting your son leave home. No, you cannot afford to lose your honest, industrious boy. No hireling will ever fill his place, you may be sure of that. In this Province, competent hired help is very hard to obtain, and boys appear to be scarce in the country. There are quite a number of bachelors and maiden ladies who never intend to marry. There are fewer marriages than in former years. As a general rule, the girls are fond of style and fashion, and many of the working men think they cannot afford to marry until they have a good bank account. When farmers deal justly with their boys, and give them wages, so that they can save money, they will find that is about the only way to keep boys (who are worth keeping) on the farm. A. R. Prince Edward Island.

THE CANADIAN BANK OF COMMERCE

ESTABLISHED 1867.

Capital paid-up, \$10,000,000.
Rest, \$7,000,000.

The Canadian Bank of Commerce extends to farmers every facility for the transaction of their banking business, including the discount or collection of sales notes. Blank sales notes are supplied free of charge on application.

Accounts may be opened at any branch of The Canadian Bank of Commerce to be operated by mail, and will receive the same careful attention as is given to all other departments of the Bank's business. Money may be deposited or withdrawn in this way as satisfactorily as by a personal visit to the Bank.

MARKETS

Toronto.

LIVE STOCK.

At West Toronto, on Monday, April 24, receipts numbered 72 carloads, comprising 1,667 cattle, 156 hogs, 74 sheep, 82 calves, 6 horses. Quality of cattle good, Export cattle sold at \$5.70 to \$6.60; prime picked butchers', \$5.80 to \$5.95; good loads, \$5.60 to \$5.80; medium, \$5.20 to \$5.45; common, \$4.80 to \$5.15; cows, \$3.50 to \$5.10; bulls, \$4 to \$5; milkers, \$40 to \$70; calves, \$3 to \$5.50 per cwt. Sheep—Ewes, \$4.25 to \$5.25; rams, \$3.50 to \$4. Hogs, \$6.50 for selects, fed and watered at the market, and \$6.20 to \$6.25 f. o. b. cars at country points.

REVIEW OF LAST WEEK'S MARKETS

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

	City.	Union.	Total.
Cars	182	145	327
Cattle	2,105	1,881	3,986
Hogs	5,422	2,158	7,580
Sheep	1,188	2,301	3,489
Calves	655	162	817
Horses	22	108	125

The total receipts at the two yards for the corresponding week of 1910 were as follows:

	City.	Union.	Total.
Cars	199	170	369
Cattle	2,969	3,246	6,215
Hogs	3,789	1,633	5,422
Sheep	229	66	295
Calves	1,200	312	1,512
Horses	2	62	64

The combined receipts of the two markets for the past week show a decrease of 42 cars, 2,229 cattle and 695 calves; but an increase of 2,158 hogs, 3,194 sheep and lambs, and 61 horses, in comparison with the corresponding week of 1910.

It will be seen by the above figures that receipts for the week were light, which caused prices to be firm, at the quotations given for Monday's market at the Union yards. Had there been seventy-five loads at the Union yards at the beginning of the week, prices, instead of remaining steady, would certainly have declined.

Exporters.—The demand for exporters was not nearly as large as for the previous week. About 200 steers, all sold were bought, at \$5.70 to \$6.00, and only 13 cattle were bought at \$4.80 to \$5.10. The average price for steers at the London market was not quite so high as those bought for Liverpool, at \$5.75 to \$5.77 per cwt. Bulls sold at \$3.50 to \$5.25 per cwt.

Butchers'.—Prime picked lots, \$5.85 to \$6; loads of good, \$5.60 to \$5.80; medium, \$5.25 to \$5.40; common, \$4.90 to \$5.15; cows, \$3.50 to \$5.10; bulls, \$4.50 to \$5.25.

Milkers and Springers.—There was a better class of milkers and springers on sale than for the past month or six weeks, and about a dozen reached the

\$70 mark, while the balance sold at from \$40 to \$60 each.

Veal Calves.—Receipts were liberal, and prices easier than in many months. Wesley Dunn, the chief operator in sheep, lambs and calves, reported that \$5 per cwt. was the average of his purchases, while the range of prices paid was from \$3 to \$7 per cwt.

Sheep and Lambs.—The receipts of Ontario sheep and lambs were light, but the supply from Uncle Sam was more than enough to make up the deficiency of Ontario shipments. The quality of American lambs was good, and just what the Toronto butchers were looking for; that is, lambs weighing from 85 to 115 lbs. More than that, they were all wethers, and the sooner the Ontario farmers follow the American farmer's example in this respect, the better it will be for them financially. The American shippers have simply captured the Toronto markets for the present, after paying duty and transportation even from Chicago. Yearling lambs are worth from \$6.50 to \$7, few selling at the latter price, the bulk going at \$6.65 to \$6.85; ewes, \$4.50 to \$5; rams, \$4 to \$4.50 per cwt. Spring lambs, \$3 to \$7 each.

Hogs.—Receipts of hogs were fairly liberal. Prices were unchanged, at \$6.50 for selects, fed and watered at the market, and \$6.20 to drovers, for hogs f. o. b. cars at country points.

BREADSTUFFS.

Wheat.—No. 2 red, white or mixed, 82c. to 83c., outside points; Manitoba No. 1 northern, 97c.; No. 2 northern, 94c.; No. 3 northern, 92c., outside points. Rye—No. 2, 66c. to 68c., outside. Peas—No. 2, 80c. to 81c., outside. Buckwheat—48c. to 49c., outside. Barley—For malting, 67c. to 68c.; for feed, 50c. to 57c., outside. Oats—Canadian Western No. 2, 37c.; No. 3, 36c.; lake ports; Ontario No. 2, 33c. to 34c.; No. 3, 32c. to 33c., outside. Corn—American new No. 2 yellow, 57c., track, Toronto. Flour—Ninety-per-cent winter-wheat Ontario patents, \$3.20 to \$3.25, seaboard. Manitoba flour—Prices at Toronto: First patents, \$5.40; second patents, \$4.90; strong bakers', \$4.70.

HAY AND MILLFEED.

Hay.—Baled, in car lots, on track, Toronto, No. 1, \$12; No. 2, \$8.50 to \$10.50. Straw.—Baled, in car lots, track, Toronto, \$6 to \$6.50. Bran.—Manitoba bran, \$21 per ton; shorts, \$23; Ontario bran, \$22, in bags; shorts, \$24, car lots, track, Toronto.

HIDES AND SKINS.

E. T. Carter & Co., 85 East Front street, have been paying the following prices: No. 1 inspected steers and cows, 9c.; No. 2 inspected steers and cows, 8c.; No. 3 inspected steers, cows and bulls, 7c.; country hides, cured, 8c. to 8c.; green, 8c. to 8c.; calf skins, 11c. to 13c.; sheep skins, \$1.05 to \$1.35; horse hides, No. 1, \$3; horse hair, per lb., 32c.; tallow, No. 1, per lb., 5c. to 6c.

COUNTRY PRODUCE.

Butter.—Receipts large, with prospects of a decline in prices. Creamery pound rolls, 26c. to 29c., with Locust Hill at 31c.; creamery solids, 24c. to 25c.; separator dairy, 22c. to 24c.; store lots, 17c. to 19c.

Eggs.—Receipts very large, with prices easy, at 17c. to 18c.

Cheese.—Large are quoted at 13c., and twins, 14c.

Honey.—Prices nominal. Extracted, 10c. to 11c.; combs, per dozen sections, \$2.50.

Beans.—Hand-picked, in broken lots, \$1.85; car lots, at country points, are quoted at \$1.50 to \$1.60.

Potatoes.—Car lots of Ontario, 85c. per bag, track, Toronto; New Brunswick potatoes, 95c.

Poultry.—Scarcely enough fresh lots were forward to make a market. Turkeys, \$4. to 27c.; yearling chickens, 18c. to 20c.; ducks, 15c. to 16c.

SEED MARKET.

Seed Company reports that the market, at which receipts are being made to the trade: Timothy seed, \$14 to \$16; medium red clover, \$18 to \$20; Mammoth red clover, \$18.50 to \$20.50; alsike, \$18 to \$23. Hides.—Calf skins, 13c. per lb. for No. 2, and 15c. for No. 1. Beef hides, 8c.

No. 2, \$6.75; alfalfa, No. 1, per bushel, \$13.75; alfalfa No. 2, per bushel, \$12.25.

FRUITS AND VEGETABLES.

Apples are scarce. Choice table Spies are worth \$6 to \$7.50 per barrel; No. 2 Spies, \$5.50 to \$6; No. 1 Greenings, \$5; No. 2 Greenings, \$4.50; Ben Davis, \$4 to \$4.50, and even \$5; carrots, 45c. per bag; cabbage, 30c. to 50c. per dozen; strawberries (American, Tennessee), 30c. per quart boxes.

Montreal.

Live Stock.—On the local market last week the price of cattle showed a decline. The offerings were larger than might have been expected immediately following Easter, and the quality naturally showed a slight falling off. The butchers were fairly well supplied, consequently were not eager buyers. Choice steers sold at 6c.; fine, at 6c.; good, at 5c. to 6c.; medium, 5c. to 5c., and common down to 3c., the lowest price being for a low grade of cows. Choice cows brought as high as 5c. The offerings on small meats were light, and the demand, on the whole, was dull. Some fine calves brought \$10 each, while spring lambs brought all the way from \$3 to \$6 each. The supply of hogs was light, but as there was very little demand, the tone of the market was not at all strong, in fact, a decline of a quarter of a cent was noted, and sales were made at 6c. per lb., weighed off cars.

Horses.—Dealers report difficulty in getting sufficient. While the demand is not very active, no horses are left in the stables. Prices firm. Heavy draft horses, 1,500 to 1,700 lbs., \$300 to \$350 each; light draft, 1,400 to 1,500 lbs., \$225 to \$300 each; light horses, 1,000 to 1,100 lbs., \$100 to \$200 each; inferior, broken-down animals, \$50 to \$100 each, and choicest carriage and saddle animals, \$350 to \$500 each.

Dressed Hogs.—Fresh-killed, abattoir-dressed hogs sold at 9c. per lb.

Potatoes.—Ontario and Quebec stock cost \$1.05 to \$1.10 per 90 lbs., carloads, on track, Montreal. Prices in a small way, delivered to store, \$1.25 to \$1.30.

Maple Products.—Wine-gallon tins said to be selling at 75c. to 80c., while in wood quotations are about 7c. to 8c. per lb., and 8c. to 10c. in tins. Sugar very scarce, but dealers seem determined not to pay more than 11c. to 11c. per lb. for it.

Eggs.—The market last week showed little change. Dealers are paying 15c. in the west, and 16c. in the east, but are trying hard to buy at less. Straight-gathered eggs were sold to grocers at 18c. to 19c., and selected large stock could be had at about 21c.

Butter.—Dealers claimed to be buying at around 22c. for fresh-made creamery, at country points. This was selling here to grocers at 23c. to 24c., according to quality. It was claimed that September-made creamery might be had at 22c.

Cheese.—Market steady. New, colored cheese, 11c. to 12c. per lb.

Grain.—The market was stronger all round on oats. No. 2 Canadian Western oats were quoted at 38c. to 39c. per bushel, car lots, store; No. 1 extra feed, 38c. to 38c.; No. 3 Canadian Western, 37c. to 38c.; No. 2 local wheat, 36c. to 36c.; No. 1 a cent under, and No. 4 yet a cent under; No. 3 American yellow corn, 59c. to 59c. per bushel.

Flour.—Manitoba flour steady, at \$5.30 per barrel, in bags, for first patents; \$4.80 for seconds, and \$4.60 for strong bakers. Ontario patents unchanged, at \$4.50 per barrel, straight rollers being \$4 to \$4.25.

Millfeed.—Market steady, at \$21 to \$23 per ton for Manitoba bran, in bags, and \$23 up to \$25 for shorts; Ontario bran, \$22 to \$23; middlings, \$21 to \$25; pure grain mouille, \$30; mixed mouille, \$25 to \$28.

Hay.—Prices continued unchanged. Dealers quote No. 1 baled hay, \$10 to \$10.50, carloads, track, Montreal; No. 2 extra, \$9 to \$9.50 per ton; No. 2, \$8 to \$8.50. Clover mixed, \$7 to \$7.50; pure clover, \$6 to \$6.50 per ton.

Seeds.—Timothy seed scarce and dear. Prices per 100 lbs., in bag lots, Montreal: Timothy seed, \$14 to \$16; medium red clover, \$18 to \$20; Mammoth red clover, \$18.50 to \$20.50; alsike, \$18 to \$23.

Hides.—Calf skins, 13c. per lb. for No. 2, and 15c. for No. 1. Beef hides, 8c.

9c. and 10c. per lb., according to quality. Lamb skins, 90c. each. Horse hides, \$1.75 and \$2.50 each. Tallow, 6c. to 7c. per lb. for rendered, and 1c. to 4c. for rough.

Chicago.

Cattle.—Beeves, \$5.15 to \$6.60; Texas steers, \$4.60 to \$5.60; Western steers, \$4.80 to \$5.75; stockers and feeders, \$4 to \$5.70; cows and heifers, \$2.65 to \$5.75; calves, \$4.75 to \$6.50.

Hogs.—Light, \$5.95 to \$6.35; mixed, \$5.85 to \$6.30; heavy, \$5.70 to \$6.20; rough, \$5.70 to \$5.90; good to choice hogs, \$5.90 to \$6.20; pigs, \$5.90 to \$6.25; bulk of sales, \$6.10 to \$6.25.

Sheep and Lambs.—Native, \$3 to \$4.70; Western, \$3.15 to \$4.70; yearlings, \$4.30 to \$5.25; lambs, native, \$4.50 to \$6.25; Western, \$4.75 to \$6.25.

Buffalo.

Cattle.—Prime steers, \$6.25 to \$6.40; butcher grades, \$3 to \$5.

Veals.—\$6 to \$7.

Hogs.—Heavy, \$6.25 to \$6.40; mixed, \$6.40 to \$6.50; Yorkers, \$6.55 to \$6.65; pigs, \$6.60 to \$6.65; roughs, \$5.40 to \$5.60; stags, \$4 to \$4.75; dairies, \$6.25 to \$6.65.

Sheep and Lambs.—Wool lambs, \$6.25 to \$6.50; clipped lambs, handy, \$5 to \$5.60; heavy, \$4.65 to \$4.75; yearlings, \$4.50 to \$4.75; wethers, \$4 to \$4.15; ewes, \$3.50 to \$3.75; sheep, mixed, \$1.50 to \$3.85.

British Cattle Markets.

Liverpool.—States and Canadian yearlings, 12c. to 13c. per pound. Wool lambs, 17c., and clipped lambs, 14c. per pound; wethers (clipped), from 11c. to 12c. per pound.

GOSSIP.

Hackney brood mares, and fillies broken to ride or drive, are advertised for sale by James Cochrane, Hillhurst Farm, Lennoxville, Que. The breeding and quality of these should prove attractive, as we are assured the prices are.

SALE DATES CLAIMED.

April 27th.—In Toronto; T. H. Hassard, Markham, Ont.; imported colonies.
May 23rd.—W. F. Elliot, Coleman, Ont.; Holsteins and Clydesdales.
May 24th.—Dr. D. McEachran, Ormstown, Que.; imported Clydesdales.

It affords me great pleasure to renew my subscription to "The Farmer's Advocate," as I could not very well get along without a paper containing such a wide scope of useful information. Am having a very successful season with my Cotswold sheep; seventeen lambs dropped from nine ewes, sixteen alive, and large, vigorous lambs, pairs weighing up to 32 lbs. when dropped.—J. A. Caldwell, Simcoe Co., Ont.

TRADE TOPIC.

J. T. Stuart & Co., stock brokers, Traders Bank Building, Toronto, Ont., are one of the firms that realize the potentialities for investment businesses among farmers. They put out a very attractive booklet, describing how simply securities may be bought and sold on margin. If interested, write, mentioning this paper.

REMEMBERING THE SABBATH.

The reverence for the Sabbath in Scotland sometimes takes a form one would hardly have anticipated.

An old Highland man once explained to an English tourist:

"They're a God-fearing set o' folks here, sir, 'deed they are, and I'll give ye an instance o't. Last Sabbath, just as the kirk was skalin', there was a drover chap frae Dumfries along the road, whistlin' and lookin' as happy as if it was ta middle o' ta week. Weel, sir, our laads is a God-fearing set o' lads, and they

"So you don't guide hunting parties any more?" asked the stranger. "Nope," said the guide. "Got tired of being mistook for a deer." "How do you earn your living now?" "Guide fishin' parties. So far, nobody ain't mistook me for a fish."



Little Trips Among Eminent Writers.

William Dean Howells.

When one thinks of those who have bridged over the gap lying between the group of American men of letters who died out with Holmes, and the present, one inevitably thinks of William Dean Howells. Mark Twain and Walt Whitman were not of that ilk, nor Joaquin Miller; they were not academic; their claim to eminence rests upon bases which owed little or nothing, comparatively, to the schools, a native strength and fearlessness, and a genius for thought and expression, developed under far different, far cruder, if, perhaps, more powerful influences. So be it. The crisp, wild apple, the clambering grape of the woods have their own savor and their own lovers, as have the trellis-trained peaches of the hothouse.

Of nearer kin to Longfellow, Lowell and Holmes, then, is William Dean Howells (Hon. D. Litt., Oxon), who, from the most classic ground in America, Boston, still sends forth from time to time essays and books which are sufficiently recommended by his name upon the title-page.

Dr. Howells was born at Martin's Ferry, Ohio, March 1st, 1837, the son of a printer and journalist, of Welsh Quaker descent, though a Swedenborgian in creed. During his boyhood the future novelist and essayist had very little schooling. At eleven he began to work as compositor under his father, but he was, as he says, "self-taught," and later in life he overtook the academic training he had missed, making out to attend Yale and Harvard, and finally graduating with the degree of M. A.

At twenty-one he made his first effort in journalism, and a "Life of Abraham Lincoln," written in 1860, won for him the post of American Consul at Venice. At the end of his term there he plunged again into the purely literary life, contributing to the New York Tribune, Times, and Nation, and filling the position of editor of the Atlantic Monthly during 1872-1881.

At the age of thirty-four he published his first novel, "Their Wedding Journey," which became at once popular, not so much, perhaps, because of its eloquence of language and literary style as because of its very local interest; everyone in Eastern America was ready to read so faithful a description of a trip from Boston to New York, thence to Niagara, and by St. Lawrence to Quebec, undertaken under such interesting circumstances as was that of Basil and Mrs. March. . . . The next volume, "A Chance Acquaintance," which is rather more cleverly evolved, covers the same ground.

In rapid succession—for Dr. Howells has ever been one of the most prolific of writers—appeared "A Foregone Conclusion," "A Counterfeit Presentiment," "The Lady of the Aroostook," "The Undiscovered Country," "Dr. Breen's Practice," "A Woman's Reason," "The Rise of Silas Lapham"—in which appears some of Dr. Howells' best work, "A Hazard of New Fortunes"—in which Basil March and his wife are carried through an interesting journalistic enterprise in New York, "An Indian Summer," "Annie Kilburn," "The World of Chance," "An Opened Conspiracy," "The Ragged Lady," "Their Silver Wedding Journey," "The Quality of Mercy," and others.

Sometimes in these novels Dr. Howells misses the true artistic touch by the mere fault of telling too much; he is not impressionistic enough; he is too photographic. Again, he dwells too intensely on trifles, as in "Fennel and Rue," in which the reader can scarce but feel that here, truly, are many words about nothing; or he permits his characters to indulge in a sort of introspectiveness that magnifies, a "kind of infernal juggle of the morbid conscience," as did Dr. Faulkner in "A Shadow of a Dream." Everywhere, however, there is a pervading cleverness; everywhere an exceeding delicacy and fineness of taste; often there are touches of a dainty and wholly charming humor. As one reads on, too, one descries, here and there, evidences that the writer is becoming occupied more and more with the serious problems of life. One perceives that he is perplexed and troubled by the wrongs of the world, the injustices and incongruities that all who think must see, the mysteries of the conflict between labor and capital, the pity of it that so many men and women must struggle and die without ever having "had a chance." And then, if one is conversant with the theories and judgments of the eminent men of the past who have striven to turn the social disorder into better channels, one begins to see the influence of More, of Ruskin, of William Morris, and Count Tolstoi; and so one is not surprised to find that at last Dr. Howells launches forth into a dream of a Utopia of his own, first attacking existing conditions in "A Traveller from Altruria," then outlining others more millennial in "Through the Eye of the Needle."

To many, these books of Socialistic (quite "Christian Socialist") flavor will appeal most; yet others will be attracted by the lighter novels, with their intensive descriptions, contradictory women, and men of fine conscience and sometimes ultra-gentlemanly nerves; but there will still remain a goodly number of volumes that will be regarded by many as the cream of Dr. Howells' writings, his delightful books of essays and travel, two volumes on "Venetian Life," "Tuscan Cities," "Modern Italian Poets," "Criticism and Fiction," "Impressions and Experiences," "Literary Friends and Acquaintances," "Letters Home," "Heroines of Fiction," "Literature and Life," "Certain Delightful English Towns," "My Mark Twain."

Whatever one's preference, one must feel that William Dean Howells has tried not to live in vain. He has tried to turn the ideals of the people of this continent to higher things. "They" (Americans), he says, "are purely commercial, and the thing that cannot be bought and sold has logically no place in their life." With the few others among preachers, artists, writers, musicians and humanitarians generally, who have seen the vision of things which, without money value, are yet worth while, he has attempted to stem the tide of a gross commercialism. As we look at these men, they seem to us like a few solitary piles, sturdily, yet futilely standing in the way of an overwhelming flood. One wonders if, in some far future age, their lives will bear fruit, or whether the flood will bear fruit, or whether the flood will, of sheer self-disgust, turn voluntarily from the high-tide and ebb back to saner, and simpler, and sweeter things. But one cannot foresee, one cannot foretell.

May we close by a short quotation

from an eminent critic. On the publication of "Delightful English Towns," Madison Cawein said, in New York Times: "Mr. Howells' earlier reputation has given him just place in the forefront of literature of our country, but now must come the conviction that he stands very near to the best in any country. His kinship to Henry James, to Walter Pater, is unmistakable in the rich unfolding of his art, the absolute repose of style, which is the highest art, and which bears so subtle a relation to the deeply psychological mind."

Yet, is it not just possible that the influence of Dr. Howells' social ideals may live when his style, his art, and his psychological studies have been well-nigh forgotten?

On Dress.

[From "Through the Eye of the Needle," by William Dean Howells. Mrs. Homos writes to a friend in New York, from Altruria.]

Of course, there was the greatest curiosity to know what Aristides' wife looked like, as well as sounded like; he had written out about our engagement before I broke it; and my clothes were of as much interest as myself, or more. You know, I had purposely left my latest Paris things behind, so as to come as simply as possible to the simple life of Altruria, but still with my big leg-of-mutton sleeves, and my picture-hat, and my pinched waist, I felt perfectly grotesque, and I have no doubt I looked it. They had never seen a lady from the capitalistic world before, but only now and then a whaling-captain's wife who had come ashore; and I knew they were burning to examine my smart clothes down to the last button and bit of braid. I had on the short skirts of last year, and I could feel ten thousand eyes fastened on my high-heeled boots, which, you know, I never went to extremes in. I confess my face burned a little, to realize what a scarecrow I must look, when I scarecrowed around at those Altrurian women, whose pretty, classic fashions made the whole place like a field of lilacs and irises, and knew that they were as comfortable as that they were beautiful. Do you remember some of the descriptions of the undergraduate maidens in the "Princess"—I know you had it at school—where they are sitting in the palace halls together? The effect was something like that.

You may be sure that I got out of my things as soon as I could borrow an Altrurian costume, and now my Paris confections are already hung up for monuments, as Richard III. says, in the Capitalistic Museum, where people from the outlying regions may come and study them as object-lessons in what not to wear. . . . You may think this was rather hard on me, and at first it did seem pretty intimate, having my things in a long glass case, and it gave me a shock to see them, as if it had been my ghost, whenever I passed them. But the fact is I was more ashamed than hurt—they were so ugly and stupid and useless. I could have borne my Paris dress and my picture-hat if it had not been for those ridiculous high-heeled, pointed-toe shoes, which the Curators had stood at the bottom of the skirts. They looked the most frantic things you can imagine, and the mere sight of them made my poor feet ache in the beautiful sandals I am wearing now; when once you have put on

sandals, you say good-bye and good-riddance to shoes. In a single month my feet have grown almost a tenth as large again as they were, and my friends here encourage me to believe that they will yet measure nearly the classic size, though, as you know, I am not in my first youth, and can't expect them to do miracles.

. . . . The shopping here is not so enslaving as it is with us—I mean, with you—because the fashions do not change, and you get things only when you need them, not when you want them, or when other people think you do. The costume was fixed long ago, when the Altrurian era began, by a commission of artists, and it would be considered very bad form, as well as bad morals, to try changing it in the least. People are allowed to choose their own colors, but if one goes very wrong, or so far wrong as to offend the public taste, she is gently admonished by the local art commission; if she insists, they let her have her own way, but she seldom wants it when she knows that people think her a fright. Of course, the costume is modified somewhat for the age and shape of the wearer, but this is not so often as you might think. There are no very lean or very stout people, though there are old and young, just as there are with us. But the Altrurians keep young very much longer than capitalistic peoples do, and the life of work keeps down their weight. You know, I used to incline a little to over-plumpness. . . . I have lost at least twenty-five pounds from working outdoors, and travelling so much, and living very, very simply.

Hope's Quiet Hour.

Oriental Customs.

Yesterday I had the pleasure of hearing a Christian Jewess talk about the customs of the dwellers in the East. She spoke particularly about life in Palestine and in the desert of Sinai, throwing considerable light on many passages of Scripture. Many of the customs of the people are exactly the same as they were two or three thousand years ago—or even longer. I will try to remember some of the interesting things I learned, so that you also may have a chance to know about them. I will not try to repeat the exact words of Miss Ben-Oliel, but will picture things as she showed them to us.

Four men, supposed to be blind and dressed to represent the part, walked carefully along. The first—an old man with long experience of blindness—groped his way. The next walked more confidently, with his hands on the shoulders of the leader. Behind him came another and another. Then the leader stumbled and fell, and all four tumbled in a heap on the platform. Blind men in Eastern countries often walk like this, so our Lord was using a familiar scene to illustrate his spiritual teaching when He said that "blind leaders of the blind" were unsafe guides.

There has been considerable discussion about the character of Jael, the woman who stole to the side of Sisera as he lay asleep in her tent, and killed him by driving the tent-peg into his temples. It seems to us to have been an act of treachery, utterly foreign to our ideas of desert hospitality; and yet Deborah, the prophetess, said that Jael should be blessed "above women in the tent." Besides, she seemed to make such a pretence

that steps are being taken in some places for the protection of our little friends. In New York State, and I believe in some of the other States, heavy fines are imposed on any milliner selling the bodies or wings of song-birds or using them on hats.

The Audubon Society, named for Audubon, the great American bird-student, is also being extended in all parts of the world, and a National Association of Audubon Societies has been formed, which will hold conventions, and form plans for uniform protection of birds throughout the world.

May I quote you a passage from New York Independent about this work? It was written for grown-up folk, but I think the great majority of you will be able to understand it all right:

PROTECTION OF BIRDS.

The National Association of Audubon Societies will present to the Ornithological Congress, to be held in Berlin on May 30, a plan for uniform protection of birds throughout the world against that heartless army of poachers that supply our millinery markets. Accordingly, an agreement is undertaken between the United States and Canada and Mexico, to protect the migratory birds of this continent. It seems that our robins, during their passage across Tennessee and Kentucky, are shot by the wholesale. The slaughter is so great that the birds are peddled at ten cents a dozen. It needs an alliance of the States, as well as State laws; and the international undertaking is rational. Recently, ten tons of the feathers of valuable Pacific species, with the skins and wings of over two hundred and fifty thousand birds, have been recovered by one of our revenue cutters from Japanese poachers. The value of the birds destroyed can hardly be estimated in figures, although it is calculated to be at least a million dollars. William Dutcher, President of the National Audubon Societies, reports that the bird of paradise is very close to extinction. This kind of work calls for an international co-operation, and it should be easily secured. Our migratory birds should be protected to the limit of law in their passage to and from their nesting homes. It would probably help somewhat to divert sentiment from war and war preparations if we entered more fully into industrial measures of co-operation, such as are proposed. Migratory birds of the very highest value to agriculture are being so rapidly thinned as to cause alarm to the Northern farmer. This matter does not affect our crops only, but as most of these birds do more or less scavenging, their destruction means increased disease and pestilence."

Now, I suppose you will want to know what YOU can do personally, to help the birds.

First of all, can you not form little Societies for the "Protection of Birds and Kindness to Animals" in your own schools? You could elect President, Vice-President, and Secretary, among your school-mates, and hold regular meetings once or twice a month, at which recitations, readings and compositions about birds and animals could be read. If you do this, and wish to subscribe to a little paper wholly given up to this work, I can give you the address.

Again, can you not coax the birds to nest about your homes and schools, by putting up little bird-boxes (always facing south or west, if possible), by scattering crumbs on bare places when food is scarce, and putting up shallow drinking-pans on posts. You can keep cats from getting up trees or posts to nests or drinking-pans, by nailing a broad sheet of tin at some distance below, so that, although the cat may get up to the tin, it simply can't get past it. (See what Mr. Saunders says about bird-boxes, page 291, April 6th issue.)

You can coax the birds about, too, by hanging bits of string and cotton rag on branches, and by planting wild cherries, Elderberry, Juneberry, mulberry trees, etc., about your orchard fences, and will leave the large, cultivated fruits, any time to go to them.

Even if, however, a few robins and cherry birds should go into your good cherry trees this year, don't get excited about it. Remember that, although the

birds may eat a few of the cherries, they make up for it by eating insect pests all the year long. Pick your cherries early—they preserve quite as well if gathered a little on the green side—and let robin live.

Also, plant sunflowers and millet, which furnish food for both summer and winter birds.

By the way, how many of you have found hepatitis this spring?

The Letter Box.

A Young Bird-lover.

[This letter was received in February, but it seems fitting to-day.]



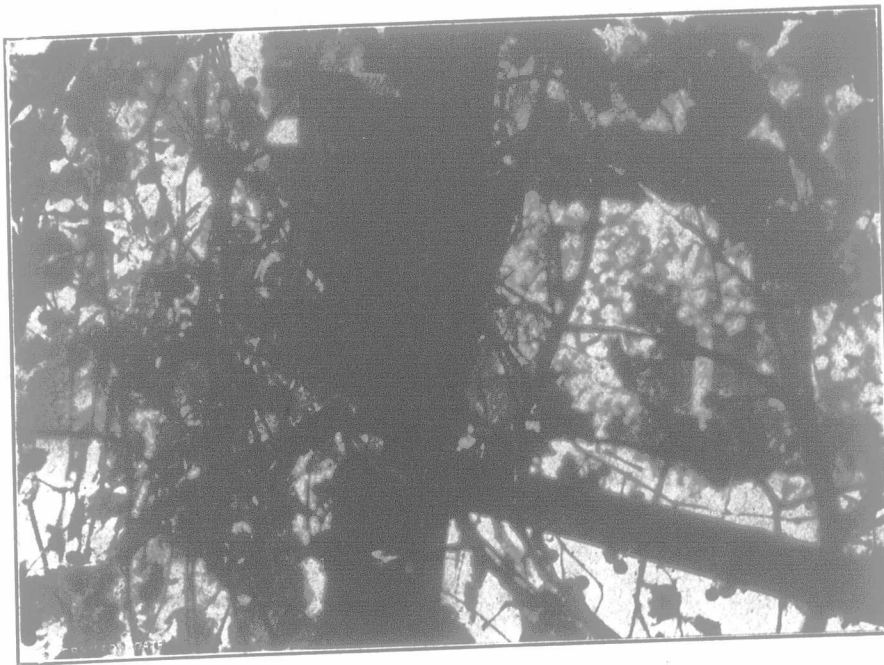
Cement Drinking Basin for Birds.

Almost any boy could make a basin like this, with graduated floor, down which the birds can walk to drink. Owing to the danger from cats, however, drinking basins are better placed on posts.

Dear Puck and Beavers,—I have written twice before, so I thought I would write again. My father has taken "The Farmer's Advocate" for over two years, and thinks it such a nice paper. I like this little corner very much. Don't you think it is nice to have the birds around you? I do; and there is a flock of snow birds around here just now, and they do a lot of good. I hope some of the Beavers

stay in the winter. The different kinds of species found are about two hundred in number.

The Point is very beautiful in both summer and winter. The cedars, pine and junipers, are very green now. In the spring, the walnut, hickory, hackberry, elm and oak, come out in green leaves. The flowers are also very pretty; the spring beauty, the violet, Mayflower, lilies, col-



A Wren House.

Note the hole just large enough for a wren to enter. This box was put up in a city back yard. Just two days later the wrens found it.

I will write to this little Circle more. I will close now, hoping to see this in print.
CLARENCE T. FITZ RANDOLPH
(Age 10, Book IV.)
Bridgetown, N. S.

Dear Puck,—This is the first letter that I am writing to you, and I hope you will publish it. I have a brother in Canada, and he likes it immensely. We get your newspaper from him. I like cats very much, and especially the dear little kit-

tens, but as we have a big dog, my mother will not allow me to keep a cat. I am still visiting a school close by here, but for the four last years I have been away in Belgium and Germany studying the languages there, so I am afraid my English is not very good, and hope you will excuse me if I have made any mistakes.

MURIEL PIENS (age 12).
North Finchley, London, Eng.

Won't you please write us a letter about Belgium or Germany, Muriel?

Dear Puck and Beavers,—I live on Point Pelee. It is the farthest point south on the mainland of Canada. The Indians used to live here, and their bones are found in great numbers. There are many birds that come in the summer, and some

causing it, but as I could not see anything, I carried the piece of earth to the light, but I could not see anything. I know it was not the light shining through a crevice, for I could move it. The next time I come across one, I will keep it and examine it closely. Would you try and find out what it is and let me know, as I like to study nature. I know this is almost too long already, so I will close now.
DAVID BROWN
(Age 12, Book IV.)

The light was probably caused by a sort of phosphorescent substance, generated by decaying vegetable matter, and similar to the "punk" of damp, rotting logs, which is often seen to glow with a pale green light after dark.

Dear Puck and Beavers,—This is my first letter to the Circle. Mr. Stockdale takes "The Farmer's Advocate." I am an orphan who came out from England four years ago. My mother and father are both dead, so I live with Mr. and Mrs. Stockdale. I hope to see this in print. We had four cats; one ran away and didn't come back, so we only have three. For pets I have four calves; their names are Beauty and Rose, and Daisy and Spot. I have a pet dog; his name is Pup; he is a playful dog. We have three horses; their names are Queen, Lady, and Frank. We have about forty cows. I am in the Fourth Book. We have a big orchard; lots of apple trees.

OLIVE SMITH.

Bridgeburg P. O., Ont.

You are very welcome to our Circle, little English girl.

Beaver Circle Notes.

Marion McNair, Brrr, Ont., tells us that her school has a library of 50 books. A concert was held to get money to add to the books. Gordon Barnes, Alvinston, Ont., writes of a library of 70 books.

Mamie Munro (age 10), Winchester Springs, Ont., would like Maenard Grey or Alvaretta Killough to correspond with her. Madeleine Driscoll (age 11), Brinston, Ont., would also like correspondents.

Dell Ramsay (age 12), Hyde Park, has made a very good choice of books. Her favorites are, "The Biography of a Silver Fox," "Black Beauty," "Beautiful Joe," and "Tom Brown's Schooldays."

Have you found any hepatitis yet. Don't pluck too many. Leave plenty to seed for next year's plants.

Hospital Nursing at Home

By Elizabeth Robinson Scovill, Graduate of the Massachusetts General Hospital, Boston.

NURSING THE SICK CHILD.

In the case of serious illness, when it is impossible to procure the services of a trained nurse, the care of the child falls upon the friends at home. The hospital nurse has been taught the easiest and best way to do certain things for the sick.

Anyone can learn enough of the art of nursing—which Florence Nightingale called "one of the fine arts"—to add very greatly to the comfort of the patient, even if she is unable to take a hospital course.

It is hoped in these papers to give a few plain directions which will add to the comfort of the patient, and lighten the labors of the nurse.

THE CHILD IN BED.

In a severe case of measles, mumps, or scarlet fever, chilling the body is especially to be avoided, and yet the clothing must be changed, baths given, and many other things done without the exposure which might be fatal.

It is not necessary to move a child from one bed to another to change the sheets in which he is lying, nor to uncover him to exchange his soiled nightgown for a clean one.

A sponge bath can be given in bed without exposing an inch of the surface of the body to the air.

Cotton clothing to be used about a sick-bed should always be aired and warmed before using. If necessary, it can be wrapped in a blanket to retain the warmth while it is being brought to the bedside.

CHANGING THE SHEETS.

When putting on a fresh sheet, first

move the pillow to one side of the bed, and lift the child over to that side of the bed. Loosen the under sheet all round and push it towards the child, leaving one-half the mattress clear. Roll the clean sheet sideways for half its width and lay it on the cleared space, with the rolled part towards the child. Tuck the free side under the side of the mattress, making it smooth. Lift the child over the roll and the folds of the soiled sheet on to the clean sheet. Go around the other side of the bed, pull off the soiled sheet, unroll the fresh one, and tuck it firmly under the mattress at the side, foot and head.

The upper bedclothes must be kept wrapped round the child during the process.

To change the top sheet, straighten the clothes, remove the spread and lay the clean sheet over the upper blanket. If the child is old enough, and not too ill, it will amuse him to hold the upper edge while you work. Otherwise, pin it to the pillow on each side the child. Standing at the foot of the bed, draw out the blanket and lay it on top of the clean sheet. If there is a second blanket, do the same with it. Lastly, draw out the soiled top sheet, unpin the clean one from the pillow, and tuck it under the foot of the mattress.

Unless a child is very restless, it is best not to tuck the upper bedclothes in at the sides.

If properly done, both sheets have been changed without the patient having been exposed in the least.

TO CHANGE THE MATTRESS.

Sometimes it is necessary to turn the mattress, or to replace it with a fresh one. If the child is too ill to be moved from the bed, procure two long, stout sticks, fold the upper bedclothes towards him, keeping him covered. Loosen the under sheet, and roll each side around one of the sticks, forming a kind of litter. One person standing at the head of the bed, and another at the foot, can lift the patient in this litter by taking hold of the ends of the sticks, and hold him suspended comfortably while a third person turns the mattress, or changes it for another, if necessary. The under sheet is easily arranged again when he is laid down.

TO PROTECT THE BED.

A square of rubber cloth, stork sheeting, or even white table oilcloth, can be placed in a sheet folded lengthwise, laid across the middle of the bed tucked firmly under the mattress on each side. This draw sheet, as it is called, can be easily rolled up and changed without disturbing the under sheet.

To do it, the child is moved to one side of the bed, and the fresh draw sheet rolled and laid on the cleared space, as already described.

Pads may be made of several thicknesses of newspaper, with a layer of cotton waste, or any soft, absorbent material on top, and covered with cheese cloth, or old cotton. These can be burned, and save much washing.

CHANGING THE NIGHTDRESS.

To change the nightdress without uncovering the child, the bedclothes must be arranged to cover the chest up to the chin. Putting her hands under the clothes, the mother draws the nightdress well up under the arms, so that the child lies upon as little of it as possible. Unbuttoning it, she draws the arm nearest to her out of the sleeve, and, raising the child's shoulder from the bed, slips the nightdress up over the shoulder and head. It is then easily drawn off the other arm.

The clean nightdress should be in readiness close at hand, warmed and aired.

One arm is put into a sleeve, the nightdress slipped over the head, the other arm put in its sleeve, and the child raised a little to permit the fresh garment to be drawn down smoothly under him. There must not be the slightest exposure as is done under the bed-covering.

SECURING THE BEDCLOTHES.

If the child is restless, and throws the upper coverings, a broad tape, or strap of any material, may be fastened to the clothes on each side, when they are turned over and tied behind the head of the bed.

Large safety pins may be used to pin the corners of the mattress in the same place.

NIGHTCLOTHES FOR A SICK CHILD.

If the child is very ill, or for any reason cannot easily be moved, it is best to open the nightdress all the way down the front, and put it on with the opening towards the back, like a child's apron.

It is always troublesome to change an undershirt, which is sure to be more or less close fitting. A little flannel, or flannelette, jacket can be worn instead, and, in case of necessity, can be put on, like the nightdress, with the opening behind.

As a sick child takes cold easily, he should not be allowed to sit up in bed without some extra protection. A little shawl pinned under the chin and across the chest, or a jacket with large, loose sleeves, easily slipped on and off, will prevent a chill.

"The Farmer's Advocate" Fashions.

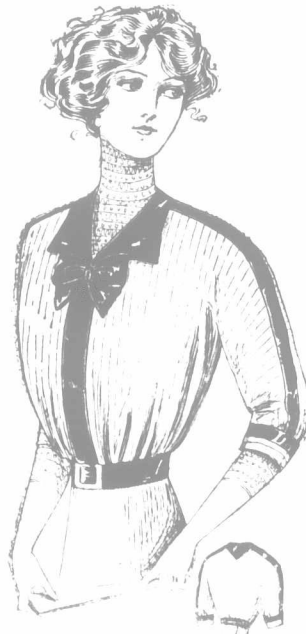


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6334 Sun Bonnet and Lingerie Hat, Womens', Misses', and Children's.



6939 Shirt Waist or Blouse, 34 to 42 bust.



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Please order by number, giving age or measurement, as shown in the following at least ten days before the pattern.

Price, ten cents per pattern. Address: Fashion Dept., "The Farmer's Advocate," London, Ont.

The Ingle Nook.

[Rules for correspondents 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.]

Garden Affairs—Warble

Taking it for granted that all "The Farmer's Advocate" women are interested in either the making or directing the making, of a garden, it occurred to me that perhaps some of my experience and methods might be of use to someone else, and that telling them might inspire someone else to write something to "The Farmer's Advocate" that would be of use to me.

To begin with, my garden is always alongside the mangel or potato patch, in rows of the same length, for the sake of convenience in scuffling. I find that my vines do just as well in the long row as in hills, and scuffling gives plenty of fine, loose earth to draw up around them. Just here, I will give my method of getting rid of striped beetle. I have used this remedy successfully for years, and have known it to banish that other frisky beetle, whose chief characteristics are length of legs and strength of odor. Take potato peelings, enough to half-fill a pail, fill up with water and let stand till it ferments—let it bubble up well—then half-fill the watering can with this potato water, fill up with clear water, and sprinkle the vines in the evening. I don't know whether this acts also as a fertilizer, but I know the vines have a much more thrifty appearance after a few applications. Care must be taken not to have this mixture too strong. I have been told it will also banish insect pests from roses.

Last year, I had quite an experience with my tomatoes. Through various causes, I lost most of my finest early plants, and had to replace them with Dwarf Champion plants about five or six inches high. Dry weather came on, and, though I hoed faithfully, those plants did not seem to intend making another leaf. I was quite discouraged, and told the good-man of the house that he might scuffle them up and put something else in that would grow; but he didn't see it quite that way. Instead of throwing them out, he scuffled between the rows, early every morning, for over a week (he is very fond of tomatoes, by the way), and those plants just grew like everything, and in the fall had bushels of fruit on them. A large proportion of the fruit ripened in the field, and we put the green tomatoes in an old spent hot-bed, where, well covered, they kept ripening until cold weather.

I should like to say a word in favor of a vegetable that isn't much grown in my neighborhood—kohlrabi. We find it very nice for a change when the family is growing tired of radishes and lettuce and cress. It can be cooked in several different ways, and I think that everyone who likes turnip or cauliflower will like it.

I notice that a number of people like to plant peas at intervals to secure a succession. Now, I like to put different kinds in at the same time, so that I can see how my ground is filled, and the scuffer can have a chance to keep the ground nice. I find that Alaska, Nott's Excelsior and Telephone, give a good succession, and can be planted at the same time.

I have another habit in making my garden that people may smile at, but smiles will not bother me, nor break me of it. In putting in my radish seed, I plant some gladioli bulbs near. They may as well occupy the ground when the radishes are pulled, and they give such fine spikes of bloom to cut for the house. I have no room near the house for them, and I must have a few flowers.

In conclusion, there is another matter I should like to write a few words about, although it has nothing to do with gardening—and that is the warble. While the men are hunting a way to get rid of the grub, I wish some of the women folk

would try my method of prevention and write results to "The Farmer's Advocate." I take a pail of salt, and add enough water to make it barely drip. Rub the backs of the cows and young cattle with this wet salt once a week (or oftener, if it rains), during the time the warble fly gets in his work, and let us know how it works for you. We have used it for years, and have scarcely a grub to kill. I think I saw this remedy, first, a long time ago, in "The Farmer's Advocate," but people seem to have forgotten it, though, like the potato water for beetles, it has several recommendations—it is easily obtained, easily applied, is cheap and effective. A. M. B.

Middlesex Co., Ont.

Very many thanks, A. M. B., for your most useful letter. Thanks also to "A Busy Mother," and all others who believe in "passing a good thing on."

Crack-filler.

Will someone please give me a recipe for a crack-filler for an old floor? The boards in some of my floors have become shrunken, and the result is that there are large cracks. I have tried filling them with putty and then painting them, but I find that the putty comes out in a few months. A SUBSCRIBER.

Method 1.—Put any quantity of fine sawdust, of the same kind of wood as the floor, if possible, into an earthen pan and pour boiling water on it. Stir well and let remain for a week, stirring occasionally. Next boil it for some time, until it becomes somewhat of the consistency of pulp. Now, put it in a coarse cloth and squeeze the moisture from it, and keep for use. When wanted, mix some of it with enough thin glue to make it into a paste, and press well into the cracks. Method 2.—Soak newspapers in paste made of 1 lb. flour, 3 quarts water, 1 tablespoon alum boiled thick. Add shredded newspapers until the mixture is about like putty, press into the cracks, let dry thoroughly, then paint the floor.

How to Make a Dress.

This question has been asked by several. In reply, would say that the very best plan is to watch the fashion patterns, or to buy a good fashion paper and select from it. It is well, always, to choose rather simple designs. One does not tire of them so quickly, and they do not go out of fashion as soon as the more elaborate or extreme ones.

Cake Fillings, etc.

Dear Dame Durden,—We have taken "The Farmer's Advocate" for a number of years, and I think it a very valuable paper. Would you kindly answer the following questions:

1. How should girls, fourteen and sixteen years of age, wear their hair?
2. How can photos be cleaned, which have been soiled by baby fingers?
3. How can little white insects on house plants be destroyed?
4. Can you give a good recipe for cake filling?

Wellington Co., Ont.

Ans.—1. This question was answered recently.

2. Try cleaning the photographs with bread crusts, rubbing the surface lightly, or with Fuller's earth, used dry. Sometimes spots may be removed by washing carefully with a soft rag, dampened in clear water.

3. Spray your plants with tobacco water, or with the following, which Ebon Rexford calls an "ideal insecticide": Shave ½ lb. Ivory soap in thin slices, pour water over, and set on the stove to dissolve. When liquified, add 5 gallons water, and apply to the plants by spraying, or dipping with plant inverted. Mealy-bug, which looks like tiny tufts of cotton batting, may be destroyed by syringing with fir-tree-oil soap solution, 2 ounces soap to 2 gallons hot water. Apply when cool.

4. Cake Filling.—(1) Sour Cream Filling—To ½ pint slightly sour cream, add ½ pint sugar and the same of walnut meats. Boil for 15 minutes, remove from fire, and, when partly cool, spread on cake. (2) Maple Filling—Beat white of 1 egg with grated maple sugar, and add 1 teaspoon melted butter. (3) Chocolate Filling—Use 1½ cups powdered sugar. Put 6 tablespoons grated chocolate and 6



May be the dough had forgotten to rise.
 Or had risen quickly overnight and fallen again—
 To rise nevermore.
 'Twas weak flour, of course.
 Meaning weak in gluten.
 But FIVE ROSES is strong, unusually strong.
 With that glutinous strength which compels it to rise to your surprised delight.
 Stays risen too.
 Being coherent, elastic.
 And the dough feels springy under your hand.
 Squeaks and cracks as you work it.
 Feel the feel of a FIVE ROSES dough.
 Note the wonderful smooth texture—soft—velvety.
 Great is the bread born of such dough—
 Your dough!
 Try this good flour.

Five Roses Flour

Not Bleached



Not Blended

LAKE OF THE WOODS MILLING COMPANY, LIMITED, MONTREAL

tablespoons of the sugar in a pan with 2 tablespoons hot water. Stir over a hot fire. Add the whites of 2 eggs beaten stiff and the rest of the sugar. Beat well, and flavor with vanilla. (4) Apple Filling—Grate one large sour apple, add 1 cup granulated sugar and the white of an egg well beaten. Beat all together until light and fluffy. (5) Caramel Filling— $\frac{1}{2}$ cups brown sugar, 1 cup milk, 1 scant tablespoon butter, vanilla to flavor. Place the milk, butter and sugar on the fire in a double-boiler, and cook until thick. Take from the fire and beat hard until stiff, then add the vanilla. (6) Fig Filling— $\frac{1}{2}$ lb. boiled figs chopped fine, 1 cup sugar, and 1 cup water. Boil together until smooth and thick.

Palms.

Dear Dame Durden,—Being a reader of your valuable paper, where so much information is given, I would like to get some about growing a palm. I have understood they need special care. May I ask what that need be, and also if some kinds are hardier than others?

LENORE.
Halton Co., Ont.

Eben Rexford says: "To grow the palm well, it is essential that we give it good soil, good drainage, and proper care. It seems to do best in a soil of loam containing some clay. Good drainage is of the greatest importance. . . . Therefore, the amateur should be sure to see that each pot has at least 3 inches of broken crockery, brick or charcoal in the bottom of it. A layer of sphagnum or cocoa fiber over the drainage material before filling in with soil is of great benefit, as it will prevent the water from carrying down soil enough to close the cracks and crevices. Great care must be exercised as regards watering. It is a mistake to give more water while the soil remains moist. Wait until the surface appears dry, then give enough to thoroughly saturate all in the pot. Place the palm

near a window, but not in full sunshine. Spray with fir-tree-oil solution if pests appear, or scrub with a stiff brush and strong soapuds. If the yellowing of the foliage shows that something is the matter, but no insects can be found, it is safe to suspect that a fungous disease is at work on the plant. Apply copperdine as a remedy once a month."

Latanica Borbonica, or "Fan Palm," is one of the easiest to grow. The Kentias come next, for the house. For lawn or veranda decoration, the Phoenix palm is best, as it stands sun and wind better than the other varieties.

Time for Supper.

Dear Dame Durden,—Having noticed a query in your columns regarding the merits and demerits of 4.30 and 5 o'clock suppers for farmers, I may say I think it is a great mistake; for, when one gets up at five, or even earlier, and is out in the fields all day in the hot, burning sun, I think it is quite time to stop at six and have tea. Then, another thing, it makes more work for the women. It also spoils the pleasure of the evening, for it is the only time for the family to gather, the children being at school, and the husband in the field all day.

This is my first attempt at writing for your columns, but I have enjoyed reading them very much.
E. L. W.
Waterloo Co., Ont.

Thanks from "Enquirer."

I wish to thank the ladies who so kindly sent instructions and basket quilt patterns. I found each of them all right, although slightly different from each other. Trusting someone else may send other patterns in the future.
ENQUIRER.
Lambton Co., Ont.

Several Matters.

Dear Dame Durden,—Saw the question asked some time ago, "What will prevent pork molding after it has been cured and dried?" I wish someone will answer that knows something about it. Have read that borax melted in water and applied will prevent molding. Has anyone tried it?

Is there one who has not used Gold Dust in water for taking smoke and dirt off paint? I use it quite strongly. It is a cleanser.

"Quiz" advocates supper at six instead of half-past four or five. I reckon if she has her dinner at half-past eleven, she has lots of time to get to the meeting and home by five o'clock. Is it not as easy to go to a meeting at one o'clock as go out to work in the hot sun at one o'clock? The trouble is, if the meeting is called for the afternoon, they don't go until supper time, and, if called for the evening, they go out at bedtime. We prefer our supper at five o'clock, the table cleared, dishes washed before milking and choring time.

Farming is a business, and farmers know that in harvest time the social part has to take a back seat. The meeting would need to be very important to interfere with the general routine of work at this time.

While resting at noon, farmers can associate with the best of writers and authors if they choose; so can the farmers' wives, and store their minds with knowledge of value; and what meeting will compare with a thorough perusal of "The Farmer's Advocate" while resting limbs and muscles? But advice is cheap; we get that often without asking for it. What we need is the kind, encouraging word, and all the help we can get. If we can say a kind word of anyone, let us say it, and keep the unkind words to ourselves. How many can repeat the "Farmer's Toast":

"Let the wealthy and great Roll in splendor and state, I envy them not, I declare it. I eat my own lamb, My chicken and ham, I shear my own fleece and I wear it, I have lawns, I have bowers, I have fruit, I have flowers, The birds are my morning alarmers; So, my jolly folks, now— Here's God speed the plow, Long life and success to the farmer!"
"STICKTOIT."

Lambton Co., Ont.

Will someone who has had experience with preventing pork from moulding in summer be kind enough to answer?

Smoking Meat—Queries.

Dear Dame,—For some time I have thought of writing to the Nook, but have let other things press it aside. Someone asked for a home plan of smoking meat. I always do ours for summer use. First trim and salt the hams and shoulders; if salted in brine, they must first be hung up and dried. Next I take a box or barrel and put it in the back yard and hang my meat in it. I dig a little trench about six inches deep, four inches across, and a foot long from the barrel, then I make a hole at the end of the trench to build the fire in, cover the trench so that the smoke will run into the barrel, and make the smudge of dried corn cobs if I can get them. It takes about a day to smoke it nicely. Then I either cover it over with dry salt, or hang it up in cotton bags.

For patent-leather shoes, I have found sweet cream an excellent thing. Rub it into the leather, then polish with a dry cloth.

House-cleaning time is here, and I am in a dilemma about it. My walls are all whitewashed with some kind of finish such as alabastine or friscote. Now, I

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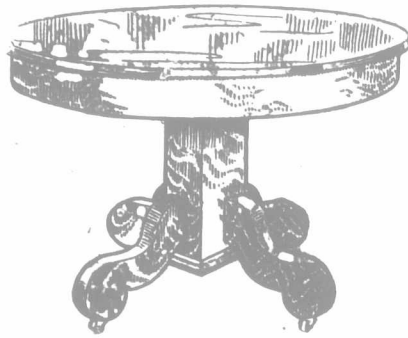
This Massive Buffet-Sideboard Only \$19.95

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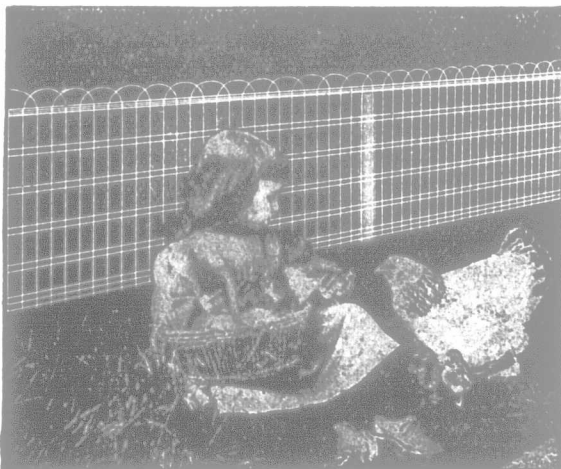
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coming style. Of course, when you are seventeen, you will have to think about arranging it in a more grown-up fashion.

Recipes.

Dear Dame Durden.—Will you allow me a corner in your Nook? Or perhaps you will think I am too young to write in the Ingle Nook, as I will not be fifteen until next month, but I want some advice about a few things, and thought perhaps you could tell me what would be a nice way for me to have a dress made, and what length? The dress is for my best, next winter. The material is navy blue poplin. What sort and color trimming would you suggest? I would like to know a nice way to do one's hair—without curling or tongs.

Can you tell me anything that will make a stout person thinner? I am very stout, and would like to get a little thinner if possible, as I cannot get my clothes to look nice. I will send some recipes which mother has tried, and which we think are very nice.

Raisin Marmalade.—Take six large cooking apples, peel them, and put them over a slow fire together with a wine glass of water and half a pound of sugar. When well stewed, split and stone 2½ pounds raisins, and put them to stew with the apples, and enough water to prevent burning. When all appears well dissolved, beat through a strainer bowl. Put away in tumblers or small preserve jars. It is nice when eaten with cream.

French Pickle.—One quart large onions chopped, 1 quart small onions whole, 1 quart large cucumbers chopped, 1 quart small cucumbers whole, 2 cauliflowers, 1 or 2 heads celery, 3 green peppers. Pour hot salty water on them and leave till morning, then drain and put on stove with ½ gallon vinegar, 3 cups sugar, ½ ounce mustard seed, ½ ounce celery seed. Scald together, and make a paste of two-thirds ounce turmeric powder. Stir in pickles slowly at boiling point.

SWEETHEART.

Dresses for young girls should always be simple; an overdressed girl of fifteen always looks like a freak. How would you like a sailor suit?—to my mind the prettiest of all, and sailor collars are quite in fashion this spring, too. Or you might have a full waist, with tucks at the top, cut out in little round yoke, to be worn over a guimpe of white embroidery or tucking and insertion. There should be sleeve caps, reaching nearly to the elbow, and short undersleeves, reaching just a little lower, of the white. In the winter, the white could be removed, and plain silk or plaid goods substituted. The skirt should be plain. I should have no trimming except a band of silk around yoke and sleeve-caps, and perhaps a fold to match on the skirt. About your hair, see answer to "Blue Eyes."

Plenty of exercise, especially walking, is the best anti-fat prescription that I know. You will likely get thinner when you are about twenty. A great many girls are fat and rather shapeless, at from fifteen to eighteen.

Slipping Geraniums—Caramels.

What would be best time of year for slipping geraniums for winter flowering? Please give recipe for making different-colored caramels.

A SUBSCRIBER.

Geraniums may be slipped and potted in spring. Keep the pot always on the small side, shifting to larger ones as necessary, and keep all flower-buds removed during summer.

Chocolate Caramels.—Stir in a saucepan 4 cups granulated sugar, 3 tablespoons glucose, 1 cup boiling water, and boil until mixture will snap in cold water. Then add 1 cup cream, a piece of butter size of an egg, ¼ of a cake of chocolate, grated fine. Let boil rather slowly, stirring all the time until it will snap in cold water. Remove from stove, flavor with vanilla, and pour in a greased pan. When cool, cut up and wrap in paraffine paper.

Walnut Caramels.—Two cups light-brown sugar, 1 large tablespoonful glucose, ½ cup boiling water. Boil, stirring constantly. When it will snap in cold water, add ½ cup cream and 1 tablespoon butter. Let boil, stirring all the time until done. When it will harden in cold water,

cannot afford to paper, and I never could learn to whitewash without leaving it all streaky. The walls are dirty. Can you tell me any way to clean them? They were originally white. Also, if I paint my bathroom, would it be necessary to wash off the "finish" before putting on the paint? Then, too, I have an oiled floor, cherry and maple, but the finish looks as if it had been walked on before it was dry, and no amount of scrubbing or waxing makes it look right. Can you help me?

Here is something nice for the kiddies' lunch:

Cheese Tarts.—Two eggs, one cup currants, one cup sugar, one-half cup butter, one tablespoon milk, one teaspoon lemon flavoring, a little nutmeg. Make shells, and cook this in the shells.

I thank you in advance for your help, and wish to express my appreciation of the many useful things I get each week out of your journal.

"A BUSY MOTHER."

I have just telephoned a painter and decorator in town re cleaning your wall. He says you cannot clean it, except by washing it well and applying a fresh coat of alabastine or water-paint when dry. With a brush made for the purpose, there should not be much danger of streaking. It will be better to wash the bathroom wall very thoroughly before putting on the paint.

Try turpentine or oxalic acid for your floor. See article on "Housecleaning" in our March 30th issue.

Washing Stencilled Curtains.

Dear Dame,—Kindly let me know, through your valuable paper, how to wash stencilled curtains without fading, and oblige.

Aurora, Ont.

Dissolve a little soap—a pure white, mild kind, such as castile or ivory—in lukewarm soft water. Wash the curtains in this, by rinsing them through it lightly, but do not rub on a board. Rinse at once through clear water, and dry very quickly in the shade.

Spanish Bun.

Dear Dame Durden and Nookers.—Could you please suggest a few nice ways for a girl of fifteen to dress her hair. I have not very much, and it is not curly. I am five feet four inches tall, and have a fat face; my hair comes to about my waist-line. I have been dressing it for about a year in the way suggested in the issue of "The Farmer's Advocate" of January 26, 1911.

Spanish Bun.—Three eggs, 2 cups sugar, two-thirds cup butter, two-thirds cup sweet milk, 3 teaspoons baking powder, 2 teaspoons cinnamon, and 2 cups flour.

"BLUE EYES."

Wellington Co., Ont.

The more simply a young girl can wear her hair, the better. The most-attractive-looking young girls that I can see in this city part their hair, twist it at the ears, sometimes pulling it into place there with side-combs, then tie it at the back, pin a large black ribbon bow to cover the tye-string, and let the hair fall to the waist in a long loose curl. It is not necessary to change the manner of one's hair-dressing often, unless it is the kind and much more so than it is to be seen in

add 1 cup chopped walnut meats, stir once and pour out to cool. For pink caramels, add pink confection coloring.

Farming Up-to-date.

By one of our Nookers, Lambton Co., who this time signs herself "Walton."

If this week you see a farmer Coming to the town, By his side his cheery wife In her newest gown, Do you query where they travel? The Institute's the charm Where wise professors tell them how They ought to run their farm.

How to care for good old Tidy So she'll not go dry, How much corn fed cunning piggie Makes him meet to fry. Prove that smiles, however sunny, Ne'er will ripen wheat, But honest toil from dawn to dark Brings all good things to eat.

And earnest mothers study training Of their children dear, Or how to grow a fragrant flower Some invalid to cheer. Home return Joan and Darby, Nor covet fashions grand, Both very sure the sweetest life Is back upon the land.

Oatmeal Pudding.

Two cups rolled oats, 2 cups sour milk, 1 cup raisins, 1 tablespoon of butter, a little sugar, a pinch of salt, 1 teaspoon of soda. Stir all well together, and steam 2 to 2 1/2 hours. Serve with sauce, as for plum pudding.

ELIZABETH.

Grey Co., Ont.

News of the Week.

James Whitcomb Riley, the poet, is at the point of death in Indianapolis, Ind.

Over two hundred lives were lost at the battle of Agua Prieta, Mexico, between Insurrectos and Federals last week.

Captain Amundsen, the Norwegian explorer, is eight months ahead of Captain Scott in the race for the South Pole.

A charter has been granted to a company with a capital of \$10,000,000 to establish a shipbuilding plant at Sydney Harbor.

The Portuguese Government has framed a decree separating Church and State, and conceding entire liberty of all creeds.

A proposition to arrange some measure of reciprocity between Canada and Australia will come before the Imperial Conference in May.

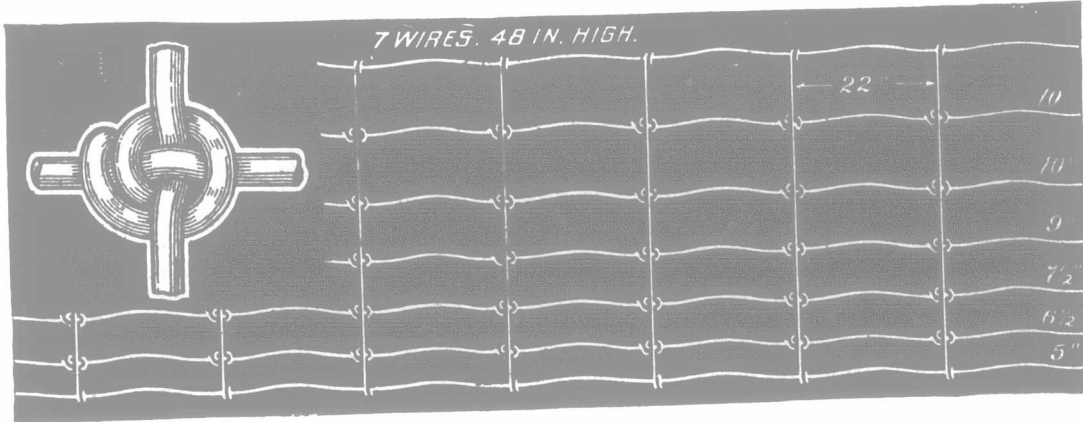
According to recent tests made in Ottawa, the Canadian diamonds found in the Olivia Mountains, B. C., are as good as the best in the world.

It has been decided that the Public Library reading-rooms in Brantford, Ont., will be kept open from two to five o'clock on Sunday afternoons.

The clergymen of Greater New York have passed a resolution supporting the proposed Arbitration Treaty between Great Britain and the United States.

The Ontario Educational Association, which met in Toronto last week, appointed a committee to urge a superannuation fund on the Provincial Government. The trustees' section resolved that a petition be sent to Hon. Dr. Pyne, Minister of Education, urging him to place personal hygiene and moral purity on the curriculum for public schools, and to have treatises on these subjects prepared for use in schools.

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This is the Season for Building Fences

Have the storms or frost of the past winter destroyed your fences?

If they have, buy fencing this year which is made to withstand the elements—"Dominion Special" Wire Fencing.

From the crude ore to the finished product, every part of "Dominion Special" Fencing is produced and manufactured in Canada.

Being the only fencing manufactured entirely from Canadian material, it naturally follows that "Dominion Special" is better adapted to with-

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Don't build a fence until you ask your dealer about "Dominion Special," if you want the very best value for your money. If he hasn't got it, write us.

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Tongue Twisters.

It is told of a distinguished professor of history that, in an address before a woman's club on "Obscure Heroes of the French Revolution," he had reached the point where one of them, nobly resolved to essay the rescue of a friend doomed to the guillotine, sought a parting interview with his sweetheart before making the almost hopeless attempt. The professor had a moving voice, and was eloquent; the assembly of women, many of them already near tears, hung breathless upon his words.

"Biddy diddy," said he, pathetically; then coughed slightly and went back: "Hiddy biddy—" Something was evidently amiss. He tried again: "Biddy hiddy diddy doo."

By this time the ladies looked puzzled and the orator desperate. Drawing a long breath and speaking with painful deliberation, he at length conquered the elusive syllables, and said: "Did he bid adieu?"

A speaker in the interest of foreign missions had, not long ago, a similar experience. He had related the conversion of two natives in a savage island, and, after narrating the acts by which they signaled their abandonment of their old religion, he tried to conclude a sentence with the words, "thus totally repudiating their two tutelary deities."

It was a simple enough phrase to the understanding; it proved otherwise to the tongue. Two, tutelary and totally together, were quite too much for him. "Thus tutelary repudiating their toe toe—" he began, confidently, when a titter in the audience checked him, and threw him into such confusion that his second effort only made matters worse.

"Thus tutelary perudiating their teo totallary deities," he blundered; and the laughter increased. With the perspiration starting on his forehead, he dashed once more wildly at the obstacle, but failed to clear it:

"Thus teetelly terupiating their too-too-too-toot—" "Toot! toot! toot!" cried a voice in the gallery. "Three warning whistles and now she comes!"

"She came," indeed, as the burst of hilarity, under cover of which the speaker had time to collect himself, subsided; and he was enabled intelligibly to repudiate those two tutelary deities at last.—The Youth's Companion.

"Now, what shall we name the baby?" inquired the professor's wife. "Why, this species has been named," answered the professor in astonishment. "This is a primate mammal, homo sapiens."

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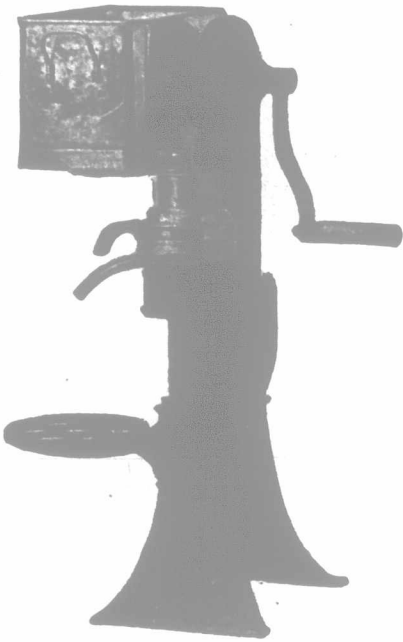
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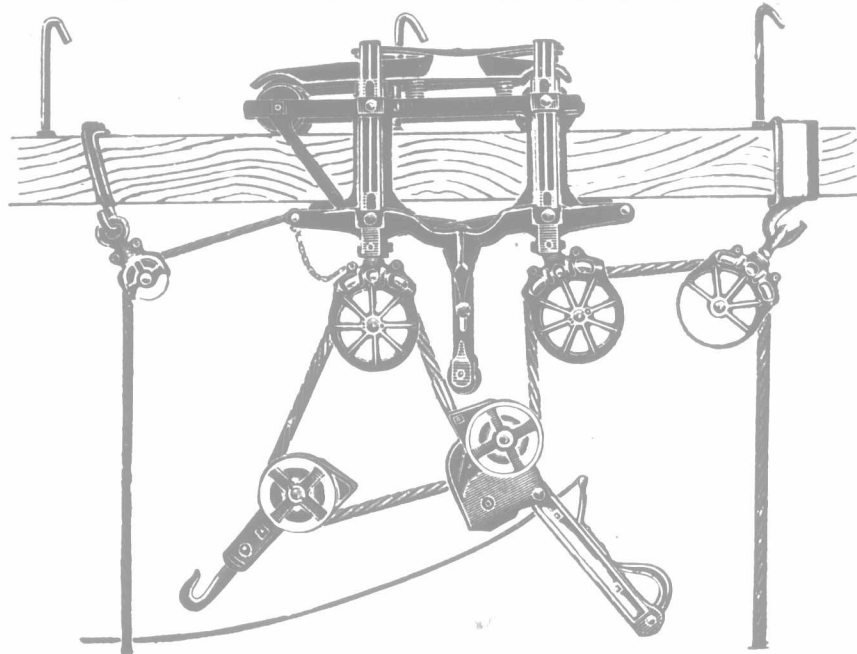
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The Stout and the Thin.

In addition to the natural and proper inclination to make the best of oneself, there is scientific reason in the stout woman's desire to reduce her weight, and the painfully thin woman's wish to take on a few more pounds of flesh; health itself is at its best when the body maintains its normal proportions, without serious loss or gain. Any considerable variation from the normal standard shows a disturbance in the balance of nutrition; either the vital fire is being fed too generously, and the excess of fuel, instead of being turned into heat and energy, is accumulating in the tissues, to be a burden to the organism and, perhaps in time, cause disease, or else the expenditure of force is greater than the supply of fuel, the bodily tissues are drawn upon to aid in feeding the fire, and all the systems of the body suffer from the insufficiency of nourishment. Stout people become increasingly disinclined to either physical or mental exertion; they are apt to suffer from indigestion and constipation, rheumatic troubles, and shortness of breath; and, when a condition of actual obesity is reached, a fatty degeneration of one or more of the vital organs is liable. The insufficiently nourished person, on the other hand, is usually anemic and nervous, the weak and faulty performance of many of the bodily functions testifying to the lack of proper nutrition.

With regard to the matter of physical attractiveness, the advantage of proper proportion between the weight and the height is obvious. The too-thin woman has fewer difficulties to contend with than her too-stout sister, in fulfilling fashion's requirements, for her figure can be modified to a far greater extent by the dress-maker's art. But the face and hands cannot be filled out correspondingly, and the thin woman early takes on lines and wrinkles, usually looking much older than a plumper woman of the same age.

Proper balance between the intake of food and the outgo of energy is thus necessary, both for the maintenance of good health and for the preservation of one's fair share of natural comeliness. The generally-accepted standard of weight in proportion to height which a woman should maintain, in order to fulfill these requirements, is as follows: Five feet one inch, 120 pounds; five feet two inches, 126 pounds; five feet three inches, 133 pounds; five feet four inches, 136 pounds; five feet five inches, 142 pounds; five feet six inches, 145 pounds; five feet seven inches, 149 pounds; five feet eight inches, 155 pounds; five feet nine inches, 162 pounds; five feet ten inches, 169 pounds.

The purposes for which food is taken into the body are two: the rebuilding of the bodily tissues, which are constantly consumed by physical and mental activities, and the production of heat and energy. During the period of growth, the body necessarily demands a large amount of tissue-building material, and it is natural and reasonable that a growing child should have a large appetite, and be ready to eat at all times of day. If, however, a person who has come to maturity continues to eat as heartily as in early life, more food is taken into the body than is required after the growing period is ended, a heavy strain is put upon the organs which remove waste products from the system, and there is likely to be a deposition of fat in the tissues. Another factor in producing these results, is the fact that the adult usually leads a far less active life, physically, than the growing child, so that less food is needed for transformation into energy, as well as for the purpose of body-building.

This is even more true now than it was a few generations ago; the higher standard of luxury in the modern manner of life, labor-saving devices of every kind, and improved transportation facilities, which have almost reduced out-door exercise to a matter of country-club athletics, are among the reasons for the present-day lack of physical activity among both men and women. It must not be forgotten, however, that our high-pressure modern life also favors the existence of a class who, instead of feeding their vital fires too generously, are inadequately nourished, among the contributing factors in this case are improper food, busy and unattractively-served meals, unhygienic ways of living, and the heavy, nervous strain that makes havoc of so many lives, in one way or another.

Considering first the case of the woman who is above the normal standard of weight, it may be said in the beginning that there are few stout people who cannot safely, and without resorting to any dubious measures, reduce their weight sufficiently to improve not only their appearance, but their comfort and general vigor as well. Such results are not produced in a moment, however, and patience, perseverance, and a considerable exercise of will-power may be necessary.

Any decided deviation from one's usual manner of life should not be undertaken without the advice of a competent physician. Constitutions have been wrecked, and even lives lost, by such tampering with nature's laws. Exercise and diet are the two great aids in reducing weight, but either, by being carried to extremes, or attempted under unsuitable conditions, may do more harm than good. One procedure which cannot be too strongly condemned, is the use of the various "anti-fat" preparations, which are among the patent medicines that have afflicted a credulous world; such "remedies" are worse than useless, as they may do actual harm by upsetting the digestion, or otherwise disturbing nutrition, while it is beyond the power of any drug to control such a complex process as that of the balance between waste and repair in the human body. If the desired effect is actually produced, it is by a lowering of the general health.

Many systems of exercise have been recommended for reducing flesh, especially about the waist and hips, and, when used in moderation, and with a physician's assurance that none of the organs of the body will be injured by their use, the following out of such a system will not only aid in reducing the weight, but will improve circulation and nutrition, and increase the general bodily vigor. The exercises usually recommended consist principally of reaching, stretching and bending movements, but breathing exercises are also useful, as deep breathing aids in burning up fat. Stair-climbing, with body erect, and only the ball of the foot placed on each step, is also highly recommended, and for reducing the fat on the hips, the "standing run" is especially valuable. Tennis, golf, bicycling, and horseback riding, all aid in keeping down weight. Walking is, however, the exercise par excellence for stout people; not a slow and languid saunter, but a brisk pace, and a steadily-increasing distance. Hill-climbing, when there is no danger of overtaxing the heart, is even more effective than walking on a level.

A noted physician, who has successfully reduced many stout patients, lately made the statement that many fat people were willing to take any sort of treatment that was ordered for them, if only their diet was not restricted. It is upon restriction of diet, however, that the chief dependence must be placed, in the reduction of weight; exercise produces a more rapid burning up of fat in the body, but superfluous fat cannot be stored up if the material for it is not supplied to the system. Many famous systems of reduction by restricted diet have been given to the world, but most of them are so severe that they should only be used under the direction of a physician. All of these systems require a reduction of the total amount of food taken, a restriction of the quantity of fluid allowed, and a more or less strict avoidance of those food substances which are most readily turned into fat in the body. Most of them also provide for light lunches in the middle of the morning and afternoon, as these additional meals tend to lessen the appetite at the heavier meals of the day.

The fat-making foods include sugars, starches, fat meats, butter and oil. It is not safe to deprive the body entirely of these groups of food substances, since proper nutrition depends upon a wholesomely-balanced diet, but the amount of them taken by the average person can be very greatly cut down without any danger to health. It is not unusual for a single meal to include a cream soup, bread and butter, potatoes, macaroni, a starchy vegetable, such as beans, a salad dressed with oil, and a rice or cornstarch pudding,—a list of articles which, as may readily be seen, contains a much larger amount of fat-making food than is required by the actual needs of the body.

The woman who is in earnest to reduce

her weight, then, should eat at each meal as little of the sweet or starchy articles of food and of the fats and oils as is compatible with health. Soup is best omitted altogether, not only because the cream soups and purees contain much fat-making material, but also because as little fluid as possible should be taken with meals. Among fish, salmon, bluefish and eels contain more fat than the other varieties of sea food. Fat meats, and all forms of pork, should be avoided. The potato is eaten so universally, appearing upon our tables at almost every meal, that its omission from the diet often seems a severe deprivation; however, it is one of the starchiest of foods, and should be cut entirely out of a menu planned for the reduction of weight. Most of the other vegetables grown below ground are also undesirable for the stout person; this class includes turnips, carrots, parsnips, and beets,—not, however, onions or radishes. Peas and beans also contain a good deal of starch. It is almost impossible to eliminate breadstuffs from the diet, yet much indulgence in the "bread-and-butter habit" is fatal to the woman who desires to grow thin. Bread has least flesh-forming power when thoroughly toasted; whole-wheat bread contains less starch than that made of the ordinary white flour, while gluten bread contains still less, and is the most desirable form for the stout person's use. Macaroni and spaghetti, rice, and the breakfast cereals, are all included in the list of very starchy foods, and should, therefore, be avoided. Sweets of every sort—cakes, pies, puddings, ice cream, confectionery, chocolate, jam and preserves—are forbidden to one who is engaged in a flesh-reducing campaign. Very little butter should be eaten; no mayonnaise dressing or olive oil in any form, no cream, and not much milk,—none at all with meals.

The list of articles allowed includes almost all kinds of fresh fish; lean meats and chicken; eggs; bread in small quantities, when stale or toasted; all fresh, green vegetables, such as spinach, lettuce, celery, asparagus and tomatoes; and nearly all kinds of fresh fruits, except bananas, which are largely made up of starch. Fruits stewed without sugar are also permitted. This is neither a starvation diet nor prison fare, but it does mean a monotonous bill-of-fare, and considerable will-power is required to follow such a regimen for a long period. Where a reducing diet is adopted without the advice of a physician, it is a safer plan to eat smaller portions of the flesh-forming foods than one is accustomed to, than to cut them out of the menu altogether. Drinking liquids with meals is conducive to increase in weight: not more than one small cup of tea or coffee, or one small glass of water, should be taken with a meal. Water should, however, be taken between meals; it is dangerous to cut the amount of water taken in twenty-four hours down to a small quantity, as a deficiency of water in the system is liable to prevent the kidneys from doing their proper work. Chocolate and cocoa are fattening. Beer and ale are well known to have flesh-forming properties, and all alcoholic beverages are better avoided.

Napping after meals aids in putting on flesh, and should not be indulged in. Standing for twenty minutes or half an hour after meals is a help in preventing the deposition of fat about the hips and abdomen, the erect position promoting a more equal distribution of the products of nutrition. Any tendency to constipation is to be prevented. Laxative fruits and vegetables, such as oranges, apples, spinach and lettuce, will be helpful here, as will a glass of cold water taken on rising in the morning.

The dietetic treatment of excessive thinness usually appears to one who is engaged in trying to reduce her weight as liberty to indulge in all the good things of this life. However, it is sometimes more difficult to build up a thin person than to reduce a stout one; restriction of diet and persistence in active exercise are practically certain to cause a loss of weight, while many factors, besides a "crossed" diet, may be at the bottom of the thin woman's condition. Diseases of many different organs, a run-down nervous condition, too much hard work and too little rest, improper food, and disorders of the digestive tract, are among the causes that may produce malnutrition, and the first measure adopted by the painfully-thin person should be a frank

talk with her family physician, as the diet required may not be that intended especially for increasing weight, but one that shall improve nutrition by remedying the defective working of some organ or system of the body.

It is practically hopeless to attempt to build up a patient when the proper conditions cannot be secured; where there is no possibility of relief from a severe physical, mental or nervous strain, where a sufficient amount of sleep is impossible, or where there can be no escape from an unhygienic way of life, the wisest dietetic measures will accomplish as much as can be expected of them, if they merely enable the body to hold its own without further loss of weight and strength.

Under favoring circumstances, however, the sugars, starches, fats and oils, which the stout person must avoid, are the food substances from which the thin person may expect the most beneficial results. Foods difficult of digestion should be excluded from the menu, as an attack of indigestion might mean a considerable setback, but many of the most nourishing and fat-producing articles of food are readily digested and assimilated, though they should not, of course, be used to the exclusion of other kinds of food.

A quart or two of milk a day, when taken in addition to the regular meals, will often work wonders; the cream should be stirred into it, not removed, and a raw egg may be beaten into an occasional glassful. Butter should be spread with a generous hand, salad dressings should contain as much oil as is practicable, and a tablespoonful of pure olive oil, taken after each meal, will be an effective aid, and also promote the free action of the bowels, that is so great a help in bringing about a condition of general good health.

Properly-made bread, potatoes, starchy vegetables, like beans and peas and corn, macaroni and spaghetti, rice, and the whole array of well-made breakfast cereals, with a generous supply of sugar and cream, should be well represented in the thin person's diet. Cream sauces should be used frequently with meat, fish or vegetables, and cream soups and purees are to be preferred to bouillions and other thin soups. Ice cream, milk puddings, and other nourishing desserts, may have a place in the menu, as may all sorts of sweet fruits, chocolate and cocoa, honey, maple sugar and syrup, and even simple and pure confectionery. There are few articles of food that are forbidden to the woman who desires to increase her weight, except those which put a strain upon the digestion. A luncheon in the middle of the morning and one in the afternoon, with a glass of hot milk before retiring, assist very greatly in the building-up process, while a nap, or at least a quiet rest, after the midday meal, enables the system to put to the best uses the fuel which has been supplied to it. Long hours of sleep, avoidance of hurry and tension, regular hours for meals, and pleasant surroundings, and conversation at mealtimes, are all aids in overcoming the tendency to excessive thinness.

With regard to both the stout and thin, it may be said that while the quantity and kind of food which is put into the body is unquestionably the greatest factor in maintaining a proper balance between its waste and repair, its income and out-go of energy, it is necessary to take a common-sense view of all the circumstances of each individual case: to make sure that there is no organ of the body whose functions are improperly performed; to avoid alike the temptation, on the one hand, to decrease activity, and, on the other, the tendency to over-exertion; to lead a well-balanced and hygienic life; and to practice, not only with regard to the pleasures of the table, but in everything that pertains to both physical and mental health, that wise choice and accustomed self-control that are the mark of the highest type of humanity.—Boston Cooking School Magazine.

It was at a Western literary club, and one of the members had just made a terrible, irremediable break about another—made it in his presence and that of several other members. "What ought I to do now?" asked the break-maker, much embarrassed. "If I were you," suggested an artist who had heard the whole proceeding, "I should go out and wiggle my ears and eat another thistle."

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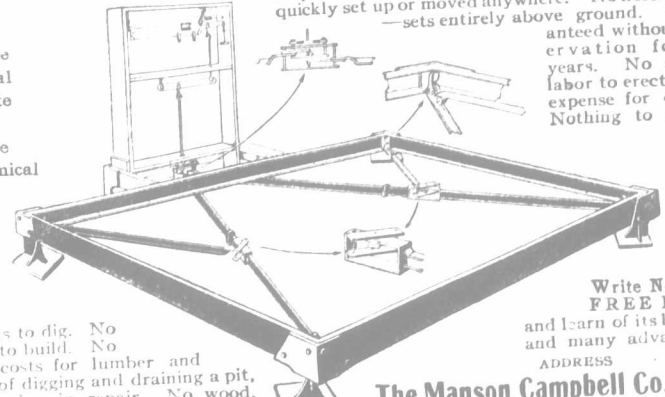
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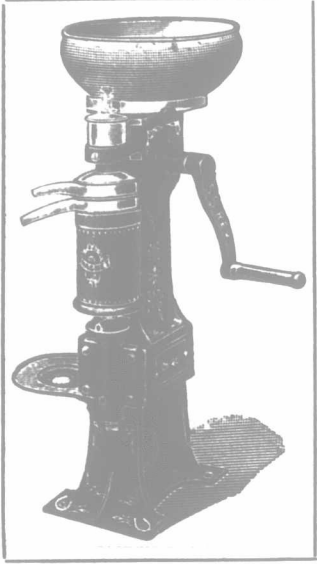
JOHNNY GROFF

AND THE

Magnet Cream Separator

Baden, Ont., April 5th, 1909.

Dear Friends:—



I will tell about our **MAGNET Cream Separator**. My little sister, **Ida May, is eight years old; Mabel is nine years, and I am ten years.** Ida May turns the milk from **three cows, Mabel from four cows, and I from six cows.** Ma says **she will never give that MAGNET Separator up; it is the best thing on the place.** We got it now since 1902, and **every year we like it better.** Ma wants to **keep more cows** this summer, she says **turning the separator is far easier than milking.** When Ma was sick **we did the milking and turned the Separator.** Our neighbors with other separators **wonder that ours runs so easy, and Ma told them that when theirs are worn out they should get the MAGNET.** We like to keep on with the cream separator as long as we can, **the more milk I turn**

the better I like it. I wish we would keep ten cows, I can turn it through, I am strong to do that, and I am not much afraid, **it makes me only fun to handle the MAGNET Cream Separator.**

I think I will close, as it is nearly school time.

Yours truly, JOHNNY GROFF.

I am in the second book.

The Petrie Mfg. Co., Ltd.

Vancouver Calgary Winnipeg Regina
Hamilton Montreal and St John

Evil of Wrong Thinking.

Wrong thinking is indicative of weakness; it is, indeed, a species of insanity, for a wrong thinker is continually tearing down and wrecking his own mental and physical structure. The right thinker is the only sane thinker, and he is the happiest as well as the most successful man. He knows better than to keep constantly tripping himself up with the adverse thought which produces destructive conditions.

We all know the disastrous effects of wrong thinking. We know by experience how it cripples us mentally and physically. Physicians are well aware that anger poisons the blood, and that fear, anxiety, fretting, and all other inharmonious thoughts, seriously interfere with the normal action of all the bodily functions. They are also alive to the fact that anxiety or apprehension of impending disaster, if of long duration, is liable to bring on paralysis. It is an established fact that a mother is not only seriously affected by her own thought, but that it affects her infant to such an extent that the same symptoms and conditions from which the mother suffers are reproduced in the body of the infant. Selfishness, jealousy and envy long indulged in, tend to produce serious liver troubles and certain forms of dyspepsia. Lack of self-control and habitual indulgence in violent passions shatter the nervous system, lessen the will power and induce grave disorders. Worry is one of the greatest enemies of the human race; it carves its deep furrows wherever it goes; it carries gloom and unhappiness with it; it delays or prevents the processes of digestion and assimilation until the starved brain and nerve cells utter their protest in various kinds of disease.

Wrong thinking, whatever its nature, leaves indelible scars on mind and body alike. It affects character and material prospects equally. Every time you grumble or find fault; every time you lose your temper; every time you do a mean, contemptible thing, you suffer a loss which cannot be repaired. You lose a certain amount of power, of self-respect, and of an uplifting and upbuilding character-force. You are conscious of your loss, too, which tends to weaken you still further.

A business man will find that every time he gets out of sorts, flies into a rage, or "goes all to pieces" when things

go wrong, he is not only seriously injuring his health, but he is also crippling his business. He is making himself repellent; he is driving away success conditions.

A man who wants to do his best, must keep himself in good mental trim. If he would achieve the highest success, he must be a correct thinker. He cannot think discord and bring harmonious conditions into his business. His wrong thought will honeycomb and undermine his prospects in life.—Orison Swett Marden, in Success.

My Neighbor and I.

(A Soliloquy.)

Doth thy neighbor's path offend thee?
Mind thine own!
Gather up each twig and bramble,
Every stone:
He the difference will see,
And may pattern after thee!

Doth the garden that is next thee,
O'er the fence,
Yield but weeds, that to thy notice
Give offence?
Plant sweet flowers, tend them well,
He may copy—who can tell?

Doth thy neighbor's face distress thee
With its scowl?
Is his voice but little better
Than a growl?
Sweeter gifts to thee belong:
Try and shame him, with a song!

Wouldst thou see a face that's smiling
Next to thine?
Then with holiness and kindness
Must thou shine:
He that's next is but thy glass
To reflect the clouds that pass!

Do not let small things afflict thee!
Look again!
What if skies some days are blotted
By the rain?
In some sky the sun doth shine:
Let it ever brighten thine!

There, if thou art smiling ever,
I see the sun,
If thy work that's close beside thee
I well done,
'Tis no matter what shall be:
For 'tis God approveth thee!

—John Knight Wyman.

The World Beautiful.

"So to keep the ideal before us in the midst of our common occupations, to guard the conviction that there is an ideal, is to preserve the First Freshness of our early impressions of the mysterious beauty of the world. Poets tell us that in the pilgrimage of life we shall watch the glory fade away from the things of earth. But if it be so, the fault lies with us. It will be because with the growth of things we have not grown to watch. The halo still encircles the bush in the wilderness where we have learned to study the material elements by themselves, only it is found to come by the gift of heaven. The sunshine which floods the whole landscape at midday, is the same as that which was seen as a star at dawn when it lighted the solitary mountain-peak, only it is infinitely vaster, and therefore harder to comprehend in its fullness."—The Bishop of Durham.

* * * *

That the glory and the freshness of a dream shall vanish with advancing years and "fade into the light of common day" is a fallacy, and a fatal fallacy to hold. On the contrary, life truly lived becomes more interesting, more fascinating with every day. The romance of life—all that may be included in the ideal domain of art, thought, and spirituality of life, extends itself as does the horizon line of one who is walking onward. The romance of life deepens and extends itself with the ever-widening and ever-deepening significance of life. The art of living is the finest of the fine arts, and the quality of life may be continually refined and exalted with increasing experience. "Moving from fragment to fragment," says the Bishop of Durham, "we learn to give distinctness to our ideal and to feel the unity and grandeur of the sum of being through our own experience. We look forward with a prophetic trust. We make the power of poetry our own, which a poet has defined to be 'the feeling of a former world and of a future one.' Exceptional occurrences, oppositions in thought, material phenomena, transcending all conceptions in their necessary conditions, take their place as indications of a larger order. . . . The vision of the ideal guards monotony of work from becoming monotony of life. . . . The contemplation of a great ideal of life will sustain the combatant in the struggle and through every failure enable him to strive as knowing that the test of abiding greatness is the power of sacrifice. An ideal is the condition of sustained action, and action is to consecrate all the fullness of powers, as knowing that life is not a search after personal aggrandisement, but the accomplishment of a divine service. We can do our humblest tasks not as drudges, but as fellow-workers with saints and heroes."

L'envoi of the Hooked Gown.

When the last hooked gown's in the rag-bag,
and the hooks are rusty and bent,
When the buttoned gowns all are buttoned,
and the dressmakers cease to invent
Dark schemes to annoy poor husbands,
weary and worn and old—
When our thumbs have ceased from their aching,
and out heated remarks grown cold,

We shall rest—and faith, we shall need it;
at peace in a golden chair
Shall loll on a sort of throne like the man
who'd the nerve to swear,
And the man who set out with the wrong
hook and ended the game in a fix
Shall hear the cold ice tinkling where the
drinks of the gods they mix.

There shall be no pads to confuse us,
no store shapes to get in their place,
No foolish, silly contraptions, embroidery
or Irish lace;
But all the hooking we do there, on that
mythical, friendly star,
Shall be with a Sensible Harness up the
back of Things as They are.

—Boston Traveller.

A Swede entered a post office in the Northwest and inquired:
'Does any letters for me to-day?'
'No, please, please?'
'What time is on de letter.'

Some Words of Advice.

A woman who has had a very unhappy married life, gives this advice to young women:

Don't marry a man to reform him. It can't be done unless he is under twenty-two.

The woman who permits her heart to rule her head makes a sad mistake.

If a girl loves a man, no matter how dissipated or selfish he may be, she plunges into matrimony with her eyes closed.

No woman should ever depend entirely on her husband for happiness. It is folly, and leads always to heartache. A married woman should have a life apart from her husband.

Let her keep sweet and true and lovable, but beyond a certain point she should not venture lest she lose her individuality in her husband's, with the result that he will impose upon her.

Beware of a man with an ungovernable temper, and almost all men are endowed with this quality.

Shun the man who drinks to excess, for it is a habit that leads to wretchedness.

Avoid also the man who is selfish, the man who considers always his own interests before those of his wife.

All men are fickle, and it depends on the wife's power to hold him.—Baltimore Sun.

Are the Girls Careless?

One of our most prominent exchanges has a caustic article on the habitual carelessness of young girls, and declares that it is almost impossible to teach girls to hang up their dresses, cloaks and hats, and put their ribbons, ties and gloves in their proper places. It says generally a girl comes home from school or elsewhere, jerks off her jacket, hat or hood, tosses them on a bed or chair, slings her rubbers in a corner or behind the stove, unbuttons her dress with a jerk while going to her room, leaves the dress on the floor, grabs another, throws it on hastily, fastens it as she can, and so on.

Well, that is a picture with life in it if it hasn't much order; and it possibly has too much truth in it. Girls, and boys, too, should cultivate orderly habits. Such habits are worth money all through life. And then, during childhood and youth, how many steps may be saved a tired mother if children were always orderly with their things.

A Ready Lawyer.

Probably no one had more ready wit than Sir Frank Lockwood, the lawyer. He was a tall man, and an unruly member of his audience once called out to him in the middle of his speech, "Go it, telescope!"

"My friend is mistaken in applying that term to me," Sir Frank quietly said. "He ought to claim it for himself; for, though he cannot draw me out, I think I can both see through him and shut him up."

On another occasion, one of his political opponents called, "All lawyers are rogues!"

"I am glad," Sir Frank quietly rejoined, "to greet this gentleman as a member of my profession; but he need not proclaim our shortcomings to the world."

An Every-day Creed.

There's nothing so bad that it could not be worse,

There's little that time may not mend;
And troubles, no matter how thickly they come,
Most surely will come to an end.

You've stumbled? Well, so have we all
in our time.

Don't dwell overmuch on regret;
For you're sorry—God knows! Well,
leave it at that.

Let past things be past—and forget.

Don't despond, don't give in, but just be yourself,

The self that is highest and best;

Just live every day in a sensible way,

And then leave to God all the rest.

—The Quiver.

The Homing Bee.

You are belted with gold, little brother of mine, Yellow gold, like the sun That spills in the west, as a chalice of wine When feasting is done.

You are grossamer-winged, little brother of mine, Tissue-winged, like the mist That broods where the marshes melt into a line Of vapor sun-kissed.

You are laden with sweets, little brother of mine, Flower sweets, like the touch Of hands we have longed for, of arms that entwine, Of lips that love much.

You are better than I, little brother of mine, Than I, human-souled, For you bring from the blossoms and red summer shine, For others, your gold.

-E. Pauline Johnson, in Canadian Magazine.

Fate.

Said the Vase from Tokio: 'I'm so costly, as you know, That I hope to see myself Soon on some collector's shelf, Ticketed and marked with care, 'Do not handle. Very rare!'

Said the little Urn from Greece: 'I am no museum piece; Yet my figure knocks askew Such a twisted thing as you; Grace and Beauty, line on line, Pave my way to fame divine!'

Said the Jar from Ispahan: 'Years I boast—a wondrous span; And the Bard hath made of me Songs for all eternity. Cease your clatter, lumps of clay, Only I outlive to-day!'

Said the maid, from Dublin hired: 'Faith, this dustin' makes me tired! Smash—ye haythin out o' shape! Smash—ye ugly furrin ape! In the ash heap, hid from sight, All the vases lay that night. -Lippincott's Magazine.

Loudoun's Braes.

A lad cam' o'er frae Loudoun's braes To see my butter-makin'; His face wis plain, as weel's his claes, But oh, his wey was takin'.

He speir'd hoo mony kye we had, And were they a' oor rearin'; His very manner made me glad, He wis sae fond o' speirin'.

He pressed his cheek against my face, Until I felt it burnin'; A sudden stillness filled the place, You cudna' hear the churnin'.

He praised my bonny butter prints, He liked to come and see them; He said his mither needed hints, And wid I come and gi'e them?

I whispered softly in his ear, 'What kens she about me?' He whispered back, 'She bade me speir, And no come hame without ye.'

So, now I'm weel, and very glad, For 'Loudoun's braes are bonney'; My dairy and my Loudoun lad I wilna' change wi' ony.

There was a small job of diving to be done, and, as the divers were all absent, an Irishman who had just been engaged to work the air-pump, volunteered to go down. He was told how to signal when he wished to be brought to the surface, he had been down barely long enough to begin work when he signaled that he wanted to come up. As soon as he was on the boat, he motioned to have the bucket taken off. 'Begob,' he said, when his head was out, 'I'll not worrk where I can't spout in me hands.'—Everybody's.

POULTRY AND EGGS

Condensed advertisements will be inserted under this heading at two 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 for any advertisement under this heading. Parties having good pure-bred poultry and eggs for sale will find plenty of customers by using our advertising columns. No advertisement inserted for less than 30 cents.

BUFF O PINGTONS

EXCLUSIVE Y FOR 10 YEARS. Eggs That Will Hatch. 9 chicks guaranteed. One selected pen, \$1 per 15—all large birds. Utility pens, \$1 per 15—extra heavy layers.

Hugh A. Scott, Caledonia, Ont.

A STRAIN OF GAMES—None better; prizewinners at Guelph and Toronto. Eggs this season from select pens of the best birds money can buy, at \$2 per 13. Silver Duck-wings, Red Piles, Black-breasted Reds and Silver pits; also genuine White Wyandottes; first-class stock, at \$2 per setting. Write for particulars. Ivan Armstrong, Drayton, Ontario.

AYLESBURY DUCKS—Eggs that hatch; from the best prizewinners, \$1.50 per setting. Satisfaction guaranteed. L. J. Gibbons, Iroquois, Ontario.

BUFF ORPINGTONS—Fine, large, golden birds; excellent layers. Eggs: \$1 per 15 eggs. Bert Hamm, Caledonia, Ontario.

BUFF ORPINGTONS—Pure-bred cockerels, pullets and eggs for sale; reasonable prices. James McGregor, Caledonia, Ontario.

BARRED AND WHITE ROCK EGGS—\$1.00 per 15; \$4.00 per 100. S. L. Jayne, Grafton, Ontario.

BARRED Rocks, Rhode Island Reds, S-C Brown Leghorns. Eggs: \$1.00 per 13. W. J. Bunn, Birr, Ontario.

BABY CHICKS—Single-comb Black Minorcas, Rose-comb Brown Leghorns and Barred Rocks, \$5.00 for 25; \$11.00 for 50; \$20.00 for 100. These chicks will be from pure-bred stock. J. H. Rutherford, Box 62, Caledonia East, Ont.

BIG MONEY in Anconas, S-C White Leghorns. Free circular. 95% fertile eggs; any quantity. Baby chicks. Write quick. E. C. Apps, Box 224, Vice-President International Ancona Club, Brantford, Ontario.

BARRED ROCK EGGS—From well-bred, blocky, heavy-laying, prizewinning birds. \$1 for fifteen; \$2 for forty; \$4 per hundred. Chas. Hilliker, Burgessville, Ontario.

COLUMBIAN PLYMOUTH ROCKS—My foundation stock imported direct from the originator's. Eggs: \$2 per 15. P. C. Gosnell, Ridgetown, Ontario.

CORNISH INDIAN GAME EGGS—Pen headed by first-prize cockerel. Satisfaction guaranteed. R. Johnston, 497 English St., London, Ontario.

DUCK EGGS—Good fertile duck eggs, fifty cents per eleven. Vernon I. Miller, Wroxeter, Ontario.

EGGS FOR HATCHING—From pens of selected birds. Prizewinners. Rouen ducks, one fifty per eleven; also R-C Brown Leghorns and R-C Black Minorcas, one twenty-five per fifteen. J. F. Bell, Leamington, Ont.

EXCLUSIVE BREEDER of pure Barred Plymouth Rocks, Pringle strain. Heavy winter layers, \$1.00 per setting. Write for circular. Riverside Poultry-yards. Jas. E. Metcalfe, Hanover, Ontario.

EGGS FOR SALE CHEAP—From pure-bred White Leghorns, Buff Leghorns, White Wyandottes and Rhode Island Reds. For prices write: H. Lacey, Kirkfield, Ontario.

EGGS FROM THREE GREAT BREEDS—Single-comb Black Minorcas, Cornish Indian Games, White Rocks. Our customers win. One dollar fifty per thirteen. Zimri Seely, Iroquois, Ontario.

EGGS FOR HATCHING—Rhode Island Reds, Wyandottes, Dark Brahmans, Rocks, Leghorns, 15 eggs, \$1.00; 100 eggs, \$4.00. Rouen and Mammoth Pekin duck eggs, 13, \$1.00. Satisfaction guaranteed. Wade & Son, Sarnia, Ontario.

EGGS—Single-comb Rhode Island Reds; winter layers; \$1.00 per 15. Grand laying Indian Runner ducks, 10c. each. Frank Bairdard, Glanworth, Ontario.

EGGS FOR HATCHING—Rose-comb Brown Leghorns, \$1.50 per 15; \$2.75 per 30. Rouen Duck eggs, \$2.00 per 15. Mammoth Bronze Turkey eggs, \$3.50 per 9. Guaranteed fertile. J. H. Rutherford, Box 62, Caledonia East, Ontario.

EGGS FOR HATCHING—From A1 heavy-laying strain of S-C Black Minorcas, one dollar for thirteen. Special prices on incubator lots. Ed. Haeker, Beachville.

'DELWEISS' White Rock eggs for hatchling, Inc. at \$2.00 the 15. Only trap-nested hens with records as pullets used as breeders. Their mating with a grand cock bird insures results. J. A. Butler, M. D., Newmarket, Ontario.

EGGS FOR SALE from birds that have won over five hundred first prizes at nine shows: Barred and White Rocks, White Columbian and Silver-laced Wyandottes, Rose and Single-Comb R. I. Reds, Buff Orpingtons, Blue Andalusians, Black Javas, Houdans, Anconas, Black and Spangled Hamburgs, Silver Gray Dorkings, Light Brahmans, Buff Cochins, White and Brown Leghorns, Golden Sebright, Buff and Black Cochin Bantams. Only one pen of each breed; \$2.00 per 15. Eggs half price after June 1st. F. W. Krouse, Guelph, Ontario.

EGGS FOR HATCHING—S-C W. Leghorns; also Rhode Island Reds. Good laying strain. Eggs: \$1 per 15. Hugh McKellar, Tavistock.

FIFTEEN Buff Leghorn eggs, one dollar. Circular free. J. E. Griffin, Dunnville, Ont.

FOR SALE—A few nice Rose-comb Brown Leghorns. Four Golden-laced Wyandotte cockerels from prizewinning stock. Prices right. Eggs in season. Peter Daley & Son, Box 26, Seaforth, Ontario.

INDIAN RUNNERS AND WHITE WYANDOTTES—Eggs, dollar per setting. W. D. Monkman, Bond Head, Ontario.

LOCHABAR POULTRY-YARDS offers eggs from selected breeding birds, Barred P. Rocks and Houdans, \$1.50 per 13. Pekin and Rouen duck eggs, \$1.50 per 9. All eggs delivered free of charge in Ontario. D. A. Graham, Wanstead, Ontario.

PRIZE BARRED ROCKS, with egg record. Eggs, one to three dollars for fifteen; six dollars hundred. Pekin duck eggs, one and two dollars for twelve. Jas. Coker, Jerseyville, Ontario.

PEN OF BROWN RED GAME BANTAMS, cheap. R. W. Cooper, 64 Brookfield St., Toronto, Ontario.

RHODE ISLAND REDS (Rose-comb)—Bred twelve years from carefully-selected, heavy winter layers of large brown eggs. Fifteen eggs, dollar-half. Good hatch guaranteed. John Luscombe, Merton, Ontario.

ROSE-COMB RHODE ISLAND REDS—Heavy laying imported stock. Eggs for setting, one dollar for fifteen. Fred Colwell, Cooksville, Ontario.

RHODE ISLAND REDS—Both combs. Eggs, \$1.50, \$1.00. Grand winter layers. Wm. Runcey, Byng, Ontario.

ROSE-COMB RHODE ISLAND REDS—Pen 1, headed by 2nd "Ontario" cockerel; eggs, three dollars per fifteen, or two settings for five. Other pens, one fifty per fifteen. Grand stock and good laying strain. C. R. Outhbert, Alton, Ontario.

SILVER-SPANGLED HAMBURG EGGS that hatch, \$1 per 15; ten chicks guaranteed. Extra heavy layers; non-sitters. Safely packed in model egg boxes. L. J. Gibbons, Iroquois, Ontario.

S-C BUFF LEGHORNS—Eggs for hatchling from splendid laying strain, \$2 per 15; \$5 per 50; \$9 per 100. H. Bazett, Springfield Farm, Duaneville, B.C.

SINGLE-COMB BROWN LEGHORNS—Prizewinners and grand layers. Seventy-five dozen. Wm. Livingston, Vickers, Ontario.

SINGLE-COMB BROWN LEGHORN EGGS—\$1.25 per 15. David A. Ashworth, Maple Grove, Ontario.

SINGLE-COMB BROWN LEGHORNS—Best laying strain; 20 eggs, \$1.00; 50 for \$2.00; 100 for \$4.00. Mrs. D. W. Kean, Orillia, Ont.

UTILITY WHITE WYANDOTTES—Good quality, good layers. Eggs: one dollar per fifteen; four dollars per hundred. Wm. Smart, Beeton, Ontario.

UTILITY WHITE WYANDOTTES—Eggs for hatchling. For further particulars write Chas. F. Hooper, Box 157, Exeter, Ontario.

WHITE WYANDOTTES—Exclusively; standard shape; vigorous layers. Eggs: \$1 per 15. W. W. Meredith, Caledonia, Ontario.

WHITE WYANDOTTE EGGS—From choice matings, \$2.00 per 30. Express paid anywhere in Ontario. W. A. Bryant, Cairnholm, Ontario.

WHITE and Columbian Wyandottes, Rhode Islands, Barred Rocks and White Leghorns. Eggs from prizewinners from 60c. up. Brome Lake Poultry Farm, Knowlton, Que.

WHITE WYANDOTTES—Eggs, \$1.25 per 15. Good layers. Satisfaction guaranteed. Clare Kirkland, Teeswater, Ontario.

WHITE WYANDOTTES—Pure Regal strain. Eggs for hatchling, one dollar per fifteen. Wm. Howe, North Bruce, Ontario.

WHITE WYANDOTTES—Eggs from selected winter layers. Dollar per fifteen; four dollars per hundred. Also a few large cockerels. Write for prices. Victor Stanley, Granton.

WHITE ORPINGTON EGGS—From prize-winning birds. Heavy winter layers. \$3.00 per setting of 15. H. Ferns, 715 Wilham St., London, Ontario.

WHITE WYANDOTTES EXCLUSIVELY—Bred for heavy egg production and standard points. Eggs: \$1.00 per 15. Good hatch guaranteed. Thos. F. Pirie, Banner, Ont.

WHITE WYANDOTTES—Record layers; Martin strain; good hatch guaranteed. Eggs: dollar per fifteen. Allan McPhail, Galt, Ont.

WHITE WYANDOTTES—Eggs, \$1.00 per 15. Good layers. Satisfaction guaranteed. Clare Kirkland, Teeswater, Ontario.

282 FIRST PRIZES last year on my Cochins, Brahmans, Orpingtons, Wyandottes, Dorkings, Houdans, Leghorns, Polands and Hamburgs. Eggs guaranteed fertile. Stock sold on approval. Circular free. C. H. Wilson, Hawkstone, Ontario.

\$6.41 A YEAR PER HEN—Our catalogue tells all about it. Write for one. It's free. L. R. Guild, Rockwood, Ontario.

Pleasant Valley Farms

EGGS FOR HATCHING.

White Wyandottes, \$1.25 per 15; \$6.00 per 100. Special mating, \$3.00 per 15. Also S-C W. Leghorns, pen headed by first-prize C. N. E. cockerels, \$1.50 per 15.

Geo. Amos & Sons, Moffat, Ont.

Single-comb Brown Leghorns

From prizewinners. Eggs for setting, \$1.00 for 15. Wm. Barnett & Sons, Living Springs, Ont.

S-C White Leghorns

Great layers and prizewinners. Eggs: \$1.00 per 15; a hatch guaranteed. Geo. D. Fletcher, Binkham, Ont.

Rab Comes Hame.

Was that a knock? Wha can it be? I hirple to the door; A buirdly chiel' is stan'in there, I never saw afore. He tak's a lang, lang look at me, An' in his kindly e'en A something lies I canna name, That somewhere I ha'e seen.

I bid him ben; he tak's a chair, My heart louns up wi' fricht, Fo' doon he sits as John wad dae When he came hame at night, He spreads bath han's upon his knees, But no a'e word he speaks, Yet I can see the big roun' tears Come happin' doon his cheeks.

Then a' at aince his big, strong arms Are streekit out to me— 'Mither, I'm Rab, come hame at last, An' can ye welcome me?' O, Rab, my arms are roun' his neck, The Lord is kind indeed; Then hunker doon and on his knees I lay my auld grey heid.

Hoo could ye hide sae lang frae me, Thae weary, weary years, An' no a'e word—but I maun greet, My heart is fu' o' tears; It does an auld, frail body gude, An' oh! it's unco' sweet, To see ye there, tho' through my tears, Sae I maun hae my greet.

Your father's lang since in his grave Within the auld kirkyard, Jamie an' Tam they lie by him— They were na' to be spared; An' I was left to sit my lane To think on what had been, An' wussin' only for the time To come an' close my e'en.

But noo ye're back, I ken fu' weel That noo a fremit han' Will lay me, when my time comes roun' Beside my ain gudeman; An' wad it be a sin to hsk O' Him who rules aboon To gie me yet a year or twa, Afore I cuddle doon.

A Mile with Me.

Oh, who will walk a mile with me Along life's merry way? A comrade blithe and full of glee, Who dares to laugh out loud and free.

And let his frolic fancy play, Like a happy child, through the flowers gay, That fill the field and fringe the way Where he walks a mile with me?

And who will walk a mile with me Along life's weary way? A friend whose heart has eyes to see The stars shine out o'er the darkening lea—

And the quiet rest at the end of the day— A friend who knows and dares to say, The brave, sweet words, that clear the way

Where he walks a mile with me?

With such a comrade, such a friend, I fain would walk till journeyings end, Through summer sunshine, winter rain— And then? Farewell, we shall meet again!

-Henry Van Dyke.

WHY NOT BECOME A SUCCESSFUL INVESTOR?

If your capital is small, so much more the reason.

Become a capitalist. If you don't make a beginning, you never will. Small beginnings, many times, lead to great success.

No order too small. All receive our best attention.

Write to-day for booklet that fully informs.

J. T. STUART & COY

Stock and Bond Brokers
Traders Bank Bldg. TORONTO.
Phone Main 5412

Show Hackneys FOR SALE

Bay filly rising 3, by Hillhurst Sensation. Bay filly rising 4, by Imp. Stillington Masher; broken to ride and drive. Also 2 Brood mares (not bred), dams of above. Registered. Attractive price for the 4.

JAS. A. COCHRANE.

Hillhurst Farm, Lennoxville, P. Q.

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.

FOR SALE—Iron, Pipe, Pulleys, Belting, Rails, Chain, Wire Fencing, Iron Posts, etc.; all sizes very cheap. Send for list, stating what you need. Agents wanted; good commission. The Imperial Waste & Metal Co., Queen St., Montreal.

FOR SALE—Send in your orders now for Carmen No. 1 and Gold Coin Seed Potatoes. Choice, select stock, true to name and type. The two best white varieties for commercial purposes, \$1.25 per bag. Bags free. J. H. Wooley, Burford, Ontario.

GOOD set of steel forms for Concrete Silos. Will build 3 sizes. Cheap. Box 214, St. George, Ontario.

GOVERNMENT STANDARD SEEDS FOR SALE—Golden Vine Peas, \$1.00; White Siberian, Banner, Silver Mine, Scottish Chief Oats, 50c.; O.A.C. No. 21 Barley, 90c.; Mandscheuri, 75c.; Red Clover, \$5.75 and \$9.00; Alsike, \$5.50; Timothy, \$6.50 and \$7.00; Leaning, Southern White, Red Cob Corn, 80c.; bags extra. Ask for samples. The Caledonia Milling Co., Ltd., Caledonia.

ONE HUNDRED AND SIXTY ACRES, unimproved, soil clay loam; north half lot eleven, fourth concession, Township Hilliard, New Ontario, for five hundred cash. Clear deed. Box X, "Farmer's Advocate," London, Ontario.

STRAWBERRY PLANTS—Stocky and well-rooted. All tested varieties. Catalogue and price-list free. S. H. Rittenhouse, Jordan Harbor, Ontario.

SELECTED EAR CORN—One dollar; sacks free. N. E. Mallory, Blenheim, Ontario.

TWO RENT—An apple orchard, comprising eight acres. Apply: Mrs. Robt. Coulthard, Strathburn, Ontario.

WANTED—Good farm hand, married, sober and industrious, to work 10-acre farm. Protestant. Apply: Box 65, North Lancaster, Ontario.

WANTED—Several good hardwood bush-bots. State what you have to offer for spot cash. Box O. S., "Farmer's Advocate," London.

WESTERN FARM LANDS—Large returns, easy payments. For reliable information regarding choice farm lands, write H. H. Suddaby, Box 111, Herbert, Saskatchewan.

Aberdeen-Angus Bulls for Sale—Two 2-year-old bulls, extra registered pedigree, and some younger stock. Address:

NEAL A. CAMPBELL, Fingal, Ont.

PLEASE MENTION THE ADVOCATE.

THE SPICE OF LIFE.

SOME PRIZE ANSWERS.

The University Correspondent offered a prize of one guinea for the best collection of twelve amusing schoolboy mistakes. This has been awarded to Miss E. M. Sutherst, 26 Beauval Road, E. Dulwich, S. E.

A selection from the large number of entries received is given below:

"Mute, inglorious Milton." These epithets are used by a writer who was envious of Milton's being Poet Orient.

He "finds sermons in stones," expresses the same idea as Wordsworth's "the restless stonechat all day long is heard."

Calvin was a noted scientist and Peer who died lately.

Magna Carta said that the King had no right to bring soldiers into a lady's house and tell her to mind them.

Henry VIII, married Katherine, and she said it was Wolsey's fault.

John Burns was the name of one of the claimants to the Throne of Scotland in the reign of Edward I.

Panama is a town of Colombo, where they are trying to make an isthmus.

The three highest mountains in Scotland are Ben Nevis, Ben Lomond, and Ben Jonson.

Wolsey saved his life by dying on the way from York to London.

An interjection is a sudden explosion of the mind.

Monsoons are fertile gorges between the Himalays.

When the English first landed in Australia, the only four-footed animal in the country was a rat.

"Those melodious bursts that fill the spacious days of great Elizabeth" refers to the songs that Queen Elizabeth used to write in her spare time.

Tennyson wrote a poem called Grave's Energy.

The Rump Parliament consisted entirely of Cromwell's stalactites.

The plural of spouse is spice.

Queen Elizabeth rode a white horse from Kenilworth through Coventry with nothing on, and Raleigh offered her his cloak.

When England was placed under an Interdict, the Pope stopped all births, marriages and deaths for a year.

A figure of speech is a way of talking or writing by which you say what you don't mean and yet mean what you say. Example: "He blows his own trumpet." You don't mean that he has a trumpet, but you do mean that he blows it, i.e., he boasts.

Lord Macaulay was a great statesman who suffered very much from gout, and so wrote all his poems in iambic feet, which was hard work.

Humphrey of Gloucester and Cardinal Beaufort died shortly after each other.

Many vessels have been wrecked and sunk in attempting to force a passage through the Rockies.

"The Deserted Traveller" is the most famous of Goldsmith's works.

Penzance in Cornwall is noted for pirates.

The Pyramids are a range of mountains between France and Spain.

By the Act of Union of 1535, Welshmen were put on an equality with Englishmen. . . . they lost their language and their manners.

Volcanoes are due to the infernal heat of the earth.

A plural verb is used when we do two things at once.

Alnwick is the place where the Duke of Northumberland likes to sit. (Text-Book has "favorite seat.")

The gods of the Indians are chiefly Mohammed and Buddha, and in their spare time they do lots of carving.

Everyone needs a holiday from one year's end to another.

Liberty of conscience means doing wrong and not worrying about it afterwards.

The strength of the British Constitution lies in the fact that the Lords and Commons give each other mutual check (check).

The Red Indians, when hunting carry their eyes in their hands, also their revolvers.

"Heir of a barren heritage" means that the person inherits a baronage.

According to the Habeas Corpus Act, a man cannot be punished twice for the same offence, so if a man steals a pig and is put in prison for it, when he escapes he cannot steal another pig and not be punished. Public Opinions.

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.

ASSESSMENT.

Three neighbors put in equal amounts of money and drill a gas well on one of their farms. This well is put down for their own private use, not selling any gas out of said well. Can the Township Council legally assess the casing and syphon pipe of said well when we do not derive any revenue from it? In answering, give number of Statute governing said question.

Ontario.

Ans.—Your statement of facts is not sufficient to enable us to give a definite answer to your question; but we would refer you to Ontario Statutes as follows: 4 Edw. VII. (1904), Chap. 23, Sec. 5, Subsec. 16; 10 Edw. VII. (1910), Chap. 88, Sec. 1, Subsec. (3), Sec. 36, Subsecs. (3) (5).

VENTILATION—HACKNEY REGISTRATION—LUMP IN TEAT.

1. The stable in which I keep my cattle and horses is a lean-to, 16x78 feet, and is quite warm; am troubled with it sweating and getting quite damp. How can this be stopped?

2. How many straight crosses are required with Hackneys before I could register them in the Canadian Studbook?

3. Young cow calved a few weeks ago, and now has a small lump in one of her teats, and the flow of milk is almost stopped. Is there any way of curing this?

Z. A. B.

Ans.—1. By ventilation, mainly. Light and drainage may also help a little.

2. Two crosses will entitle a mare to registration as a two-cross mare.

3. A common trouble among highly-specialized dairy cows—one that is seldom treated satisfactorily. You might have your veterinarian try an operation, but our way of handling such a cow would be to put a couple of calves on her, and dispose of her at an early opportunity for beef. If she is a cow that gives very rich milk, the above plan might not be advisable, as the extra content of butter-fat above the normal would not be a benefit, but rather a disadvantage to the calf. In any event, we should plan to get rid of the cow. Her heifers are liable to show the same trouble.

CEMENT CURB FOR SPRING—CESSPOOL.

1. I have an over-flowing spring, which is dug out to the solid clay about four feet from the surface. Six years ago I built a cement box four feet square around it, the wall being six inches thick and seven feet in height. The frost burst it all around about two feet under the surface. Would you let me know what shape of box to build, and how to mix the cement, as I want to confine the water and have it to rise three feet above the level of the ground?

2. How far away should a cesspool be from a house, and how much earth should be over it in sandy ground?

3. What kind of pipe would you recommend to put underground from a sink in a kitchen to a cesspool?

NEW SUBSCRIBER.

Ans.—1. The shape of the box is immaterial so far as the cracking is concerned. This may have occurred from either of two causes; first, the mixture may have been rather "lean," making the wall porous, so that the water soaked into it, the expansion of the water on freezing cracking the wall; second, the cracking might have been caused by "slaving," the wall not being strong enough to lift the lower part as the lower part sank. To avoid a recurrence, you should make the next box strong, by using a mixture of, say 2 of sand to 1 of cement, also by putting in some reinforcement. These are various ways of doing it, but perhaps the best would be to use some of the reinforcing used in the construction of buildings. The wall might also be made thicker than before.

in the construction of buildings. The wall might also be made thicker than before.

2. A cesspool should be at least 100 feet from the house, and should have at least one foot of soil over it.

3. Use regular sewer pipe, four inches in diameter. WM. H. DAY.

SALE OF DISEASED COW.

A (a farmer) sold, on December 15th, 1910, to B (cattle dealer), a cow. Some time after, B sold to C (a cattle dealer), C again sold to the Packing Company, where the animal was slaughtered. The inspector found the animal affected with tuberculosis, and unfit for human food. C was notified by the Packing Company, carried the notice two or three weeks in his pocket, then handed it to B, who claims he went at once to the Packing Company for proof, and to see the hide, but it was shipped a few days before. B showed A the inspector's report on January 21st, 1911, which read like this: "Cow, black and white, bought from C, hide No. 456, affected with tuberculosis; unfit for human food." B says he had to put up the price paid by C, less the value of the hide, and the value of the carcass for fertilizer, and now asks A for the price paid him, less the same.

What is the law in the case? Will A have to lose the price received for the animal? The cow was a fine, healthy-looking animal, with no suspicion of disease of any kind. A great many black and white ones are slaughtered by the Packing Company. The hide being shipped, gave no chance to prove this was the one bought from A, and no guarantee was asked or given as to its freedom or not from disease.

A SUBSCRIBER.

Ans.—If no warranty was given in either case, A was not liable to B, nor B to C.

RE MANGEL SEED.

I notice in your April 6th number that G. H. Clark, Seed Commissioner, cautions the farmer in regard to the poor quality of mangel seed in the market this spring. In buying this seed, we have to take what the merchant gives us, and we do not know whether we are getting seed or only chaff until it is taken home and tested. One of my neighbors pounds the seed in a bag. This partly separates the seed from the chaff, but doing this, I find, bruises some of the seed. Could someone suggest some scheme that would separate the seed from the covering without injury to the seed, so we would know we were getting seed, and not chaff?

Hoping someone may give us his experience in handling mangel seed that will be a benefit to your many readers, I remain, yours truly.

A SUBSCRIBER.

Wellington Co., Ont.

Ans.—The husk surrounding the small mangel seeds (of which there are from two to three embedded in each seed-ball or fruit) is quite as hard as the seed itself, and there is no known process by which mangel seeds can be separated from the seed balls without entailing considerable waste of the good seed. With a sharp point, the small seeds can be readily located in the seed-balls, extracted and examined. With this year's supply, such an examination will make clear that a considerable proportion of the small seeds are quite dead. I would advise farmers to procure their supplies of these seeds early, plant a hundred average seeds in a box, and in this way determine for themselves the percentage of seed-balls capable of producing sprouts. When the work is done under their own observation, they can form a good idea of the strength of growth of the young plants, which is an important factor.

GEO. H. CLARK,
Seed Commissioner.

The little daughter of a clergyman stubbed her toe and said, "Darn!"

"I'll give you ten cents," said her father, "if you'll never say that word again."

A few days afterward she came to him and said:

"Papa, I've got a word worth half a dollar."

At the least, bear patiently, if thou canst not joyfully.—Thomas a Kempis.

APRIL 27, 1911

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If so, why not have it cured? We've been engaged for over eighteen years successfully treating bad complexions, curing skins spotted and blotched with boils, pimples, blackheads, pustules, and all forms of acne.

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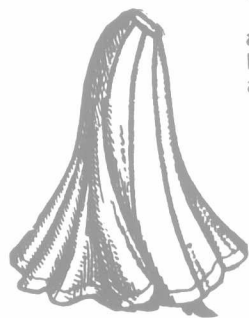
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PLEASE MENTION THE ADVOCATE.

The Garden of a Com-muter's Wife.

(By Mabel Osgood Wright.)

CHAPTER XIV.—Continued.

It is delicious sometimes to do nothing simply for its own sake. As I leaned luxuriantly back, and alternately looked down the vista of the long walk toward the sun garden and into the rose arbor, then closing my eyes and merely breathing in fragrance and sound, I was no longer the commuter's wife who breakfasts at seven, and is obliged to, partly, at least, observe the conventionalities, but a Lotus Eater listening to the nightingale. I'm not at all sure that flower and bird inhabit the same country, but I'm sure they ought to.

I did not care a particle as to which flowers gave the perfume or what birds the music. I was simply saturated with both, and resolving not to move until afternoon, I must have fallen asleep; for the next thing I knew, I was startled by an emphatic bump on the head, caused by a falling apple, and Bertie's voice, which said, "The young cabbage flowers are of the beautifullest. It should much please you to see she."

Vegetables are a most wholesome and necessary adjunct to a flower garden, though, of course, there are people who would transpose this sentiment. I went immediately to see the cauliflowers, and at once became enveloped in a contrasting atmosphere of bean poles, pea brush, tomato trellis, and cabbages, where mathematical preciseness and the straight lines of beets, carrots, lettuce and parsley drew my wandering vision into focus again. As to the cauliflowers, I could honestly admire "she," milk-white in a crisp green setting, and surely the rosy beets, with their color running well up into the foliage, and the delicate translucent green of the long heads of Trianon Cos lettuce are beautiful, while the great bunches of ripening currants bring as fine a color to the vegetable garden as the oriental poppy lends the parterre. Then, too, the vegetable garden has, to counteract the pungent breath of cauliflower and cabbage, a fragrant bouquet all its own, that is distilled nightly by the dew, the breath of sage, thyme, sweet marjoram, basil, and lavender.

Yes, I am a pagan, as I have often suspected. I have a material streak in me that finds intense satisfaction in soup vegetables and pot herbs, as well as roses and honeysuckle. Sickness alone deprives me of my appetite, and I have never yet been so sad or sentimental that I felt a loathing for my luncheon. I think father and Evan encourage this materialism in me, and so does Martha Corkle, who sees that luncheon comes to me if father is not at home and outdoors bids fair to hypnotize me.

Father says that hungry sentiment develops melancholy, but well-fed sentiment, enthusiasm; so I suppose that I must be an enthusiast. There are four great pleasures of gardening—the planting, the development, the gathering, and the distributing. Each one in its turn seems the keenest, and surely the last is not the least; for what is life worth if one has nothing to give away? This lack, it seems to me, must be the sharpest pang of poverty.

Then, too, garden gifts are all pleasure—light and slight matter-of-course gifts that carry no impediment of obligation with them; for ment of obligation with them; for one may give a whole basket of home-grown flowers, when a mere handful, if purchased, would be an intrusion. Here, again, in order to fulfil its destiny, the garden must be dual—flower and vegetable; for there is always a neighbor whose peas are affected with weevils, whose lettuce has run prematurely to seed, or a dear old farmer-friend at the hospital who has fallen from the hay-mow and fractured a rib or leg (this

seems a favorite midsummer pastime of farmers past middle age; the young ones fall from cherry trees), who is "pining for garden sass" or a "good dish of beets and raw onions with plenty of cider vinegar." Not to mention my Lady of the Bluffs, who, I know of old, would stray out from father's office, where she had called, and levy upon the necessary leaf, fruit, or berry, for some desired entree.

It is strange oftentimes to see how little the gardens of the rich yield them, even in satisfaction, in proportion to the outlay; but perhaps it is well, else we middlings would have no ground upon which to meet them, which would deprive us of much merriment.

I lunched in the garden to-day, and Martha served me with her own hands, a mark of attention denoting either special favor or a desire for the opportunity of private discourse. Really she is not as plump as she was, and though she says nothing, I sometimes feel the ghost of the "home-brewed" is between us.

She arranged the little table that we keep under the rose arbor for after-dinner coffee quite deftly in the breeziest corner, and had brought out the tray before I realized what she was about. But as my look of inquiry was unanswered, I asked, more as a form than from a desire for information, "Where is Delia?"

"She is not feeling exactly herself, Mrs. Evan," Martha replied, stopping short with pursed-up lips, evidently hesitating between merely answering the question and opening a conversation.

"I wonder why she didn't tell me she was ill?" I said half to myself. "I'll not go so far as to call her ill, Mrs. Evan, but shook up and scattered like, and she took the chance of slipping down to speak with the priest about it, while he would be in at his dinner, the same which I call a liberty, having ought to ask you."

Shaken? scattered? priest? I could not unravel the matter, so I told Martha to explain, as she was so evidently anxious to do.

"Well, it's this way, Mrs. Evan, for it's not listening and tattling to speak what is spoken aloud to those who has a right to hear. When Delia broke with Patrick Doolan the night before she thought to hear the banns read, she was glad enough for a while, free in her mind, and well content to be rid of him. After a time, howsoever, the waste of her wedding gown, as it were, set heavy on her; for you see, Mrs. Evan, it were all made and ready, even to the neck frill, blue silk trimmed out with white lace, and a white hat, with a plume that long" (measuring the length of her arm) "all curled up around it."

"I said as there were other men to marry, to comfort her, as it were; but she says, 'Mrs. Corkle, what's other men to me so long as they doesn't ask me, and my dress going out of style from backs coming in fuller, which can't be changed, it being a remnant?' The same being quite the truth, Mrs. Evan."

"Then she took down-hearted, and news kept comin' to her that Patrick had never done a day's work since Hallowe'en and was drinking most shocking. 'I never thought he was that fond o' me,' she'd keep saying, and rocking to and fro, 'and it's I that was a fool to throw away me luck, and a fine house, too.' 'I kenneed it was yersel' was thrown, hoose and a', said Timothy Saunders, unfortunate-like, one night. So for a while she kept her trouble to herself, out of stiff pride."

"Last night I was sitting down to my needle, when someone knocked, and I opened the door to a respectable-looking body dressed out quite decent in black. Before I learned her business she was past me, to where Delia sat at the machine, and kneeling before her, crying and taking on not fit or proper for a woman of her years."

"Mrs. Evan, if it was not old Mrs. Doolan begging Delia to marry

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her son to save him from death by drink and disappointment, then Corkle isn't dead and I his widow!

"Mrs. Evan, Delia gave her promise all too ready-like, I'm thinking, and the two went out crying together, to run down Patrick, whose whereabouts I mistrusted was undecided."

"Is the old woman going to give them the farm?" I asked, quite confounded at the turn of affairs, for I thought Bertle was consoling Delia.

"That she is not! She says that Delia may live in with her, and that she'll not object to her takin' up work in the shop, if she feels like keepin' independent." Here a fine sneer of derision curved Martha's nostrils.

"And the boil-down of it all is that Delia is going to be fool enough not only to marry a man what's at best a burnt match, and now confessed always in liquor, but she's going in with the old party, Mrs. Evan, who will undertake to see her work to keep him idle." Here Martha gave the tray a little push toward me, as if she thought it time to change the subject.

"I will speak to father; he will never allow Delia to throw herself away like this."

"Best not, Mrs. Evan. The doctor is clever, no doubt, but this marryin' rascals is a disease beyond him, especially when the parties is Irish, for I knows them well and thorough; they blows hot and cold so quick, it keeps hothers all of a shiver, and when you reaches out the 'elphin' 'ands, it's not me nor you can tell if it's a kiss or a knife they'll meet."

"What does concern me is this, the seein' you inconvenienced by changes in hot weather, Mrs. Evan. Delia should give her proper month's warning, but instead she's took her bank-book and gone down to the priest to get him to speak with Patrick and hurry the wedding without the calling of banns, if it may so be."

"Now, Mrs. Evan, Timothy Saunders' sister's girl, Effie, is leaving service in Canada, and is looking to crossing to the States, having written her uncle to speak for her where he is acquainted. Which same I bid him do, but he being so backward, I'll venture it for him, that you might try her, the same making less of a mixed family, you know, ma'am."

I assented, thanked Martha, and she departed. As the luncheon was a cold one, it had not suffered by delay. An egg and lettuce salad, waferlike sandwiches of ham and chicken, strawberries heaped on their own leaves, hulls on, with sugar to dip them in, and a glass of milk. As I ate leisurely, thinking of Delia the while, Bluff came up for crusty bits, as a matter of course, but The Orphan seated himself at a distance and sniffed until I called him. That last arrival is a curious character study, a self-made dog, deserving admiration for his reserve, but much like a person whom it takes years to outlive a youth of deprivation. When he first came to us, after living between coal-box and wall in the flagman's house, he did not understand having space to move about in, and so he continually backed solemnly into corners. I love Bluff, but I can only respect The Orphan, who is old before his time, and while faithful, yet is too humble, and lacks the spontaneity that makes young children and animals lovable.

The air grew cooler in the early afternoon, and light clouds gave a grateful half-veiled atmosphere that coaxed me to leave the tree and stroll to the sun garden. Our scheme of grouping the spectrum colors about the dial is a complete success, for the zinnias are blooming evenly, and the blue centaurea matching them in height, the effect is at once rich and unusual. Amid all the wealth of color, the blaze of light reflected from low-growing portulaca, nasturtium, geraniums, and the first buds of many-hued hollyhocks, it is through the nose more than the eye that I am guided to where lowering clouds are casting a few drops upon

the bed of sweet odors, thus completing the fragrant spell.

Without such a bed no garden is completely gracious, and yet few there are, pretentious or humble, that have one. When Evan designed the beds of the sun garden, he said that the tire of the fiery wheel should be of subdued colors; shaded greens or at most half-tones. For a moment it seemed that the dreaded coleus would be inevitable; then my Familiar Spirit whispered, "Let this circle be your bed of sweet odors."

There are comparatively few wholly scentless flowers, while there are many, like hyacinths and the ranker lilies, whose heavy perfume closes the house door upon them. These last, however, have a very limited period of bloom, while the plants chosen for my bed of sweet odors breathe fragrance from frost going until its return, and even after.

There are only three colors, but many tints, in this bed of mine, green—silvery, velvety, and glossy; violet, purple, and ruddy-gold. The plants are, reckoned from the tallest downwards, lemon verbenas, rose, nutmeg, and apple geraniums, heliotrope of violet to mauve, annual wall-flowers of warm yellow, and mignonette, this last being of three kinds—Mammoth, Parson's white, and Macheffe.

Though the plants were set in rows each of a kind, with the shrubby lemon verbenas as a ridge-pole, and the mignonette edging the whole, by middle June they were so blended that the earth was completely hidden. Now, with the greenery in luxuriant leaf, heliotrope and mignonette in bloom, this bed holds more subtle fascination than any other. Heliotrope is best enjoyed at morning and evening, when the dew holds its fragrance earthward, for when gathered it withers quickly, and if mingled with other flowers in vase or jar, blackens and seems to poison the water, causing the whole posy to droop. In its bed it is one of the generous contributions to the charm of the garden of night that lures us abroad under the summer moon.

For the rest, the bed of sweet odors is most pickable, and its foliage gives the crowning touch of sympathy to each bouquet. For tea roses I choose geranium leaves; for sweet peas, a fringe of mignonette, with long sprays of lemon verbenas for asters and old-fashioned hardy blossoms; while the wall-flowers should flock quite alone, bunched in small glass globes, that they may lose nothing of their potency. I have grown this last flower a dozen years, and yet it seems either quite unknown, or else set aside for its more showy perennial brother, that in this climate needs winter housing. This humble annual, if sown early, and if the season is not too wet, blooms from July until snow hides it, and I once remember gathering a delicious bunch on a Christmas morning.

In a nook of this darling bed of mine hides a silvery, cut-leaved plant, a mascot that I hope will thrive and soon hold a braver place. This plant is rosemary, the flower of remembrance. I brought this little root from Shottery, and it is planted here in remembrance of the glory of the literature of the mother tongue and of all true lovers.

If flowers make a garden, so also do the greens that form their setting, and I now find the wild space beyond the sun garden inseparable from the cultivated in this matter. The madonna lilies now in perfect bloom, when gathered, need delicate maidenhair and lady ferns for company, while hollyhocks set in the great India jars should emerge from a mass of vigorous brakes in order to hide their usual shabbiness of stalk.

July 16. Full moon, and both single and double hollyhocks at height. All day long the garden is a-bloom under full pressure of the sun and frequent showers, and the bright moon so carries day into night that we often stay out until the striking of the magic hour, and even then I linger at my lattice win-

Please Mention The Advocate

dow, for below lies the moonlit garden, an etching framed by trees.

For a week past Evan and I have been wandering in the garden of night, as we call it, and continually meeting surprises in familiar places. One of the alcoves in the border of the long walk is filled with yellow evening primroses mingled with the starry, long-tubed flowers of white tobacco (*nicotiana affinis*). Both of these open at sunset, a time when sweet peas furl their butterfly wings and many other plants contract both flower and leaf; then all through the night they give forth the fragrance that lures their insect lovers, so that above them is a perpetual flight of moths, while the blending of gold and silver under the moon-spell defies description. The most gorgeous of red, crimson, pink, blue and purple flowers grow dark at night in proportion to their daytime richness, and it is to the light colors alone that the garden then owes its beauty.

Night before last we were wandering about the garden, peering in corners where masses of hollyhocks that had strayed without border bounds reflected moonlight from their disks, and great spiders spread their webs across open spaces and hung in waiting, savagely patient, while the dew turned their homespun into cloth of gold.

Suddenly a snapping noise seemed to drop from a spruce tree overhead. There was a ponderous flapping of wings and a note of warning that sounded like the passing of a broom across a sanded floor. The tree was half in deep shadow, but after a few moments we could see the outline of some stocky birds that were sitting in a row upon a limb close to the trunk. Another cry, a flapping and shifting, and we named them screech owls, and their number five, evidently two parents and three owlets. Then the dance began.

If I had ever doubted the capacity of animals for play, I should now be converted. Of course a habit of gambolling is common enough among dogs, cats, and the intelligent quadrupeds, but I had never before suspected the solemn owl of such humor, and shall in future regard it as a professional wag of great ability.

At first the old birds mystified their children by separating and giving the "get-to-cover" cry from separate trees. This seemed to be by way of emergency drill, and lasted half an hour, until at the signal the youngsters stopped flopping about aimlessly, and flew direct.

They were quite fearless, and did not object to our presence in the least. In fact, as we tried to follow their erratic course through the garden and wood-lot, and along the grassy walk that, edged by daisies, seemed a pathway to the moon direct, they seemed to take delight in seeing how nearly it was possible to fly into our faces without absolutely touching us.

Once safe in the fastness of hemlocks and spruces, their tactics changed. Perching five in a row upon a downward sloping branch, they pushed and jostled each other until the one nearest the end was crowded off. Instantly it flew to the top of the line and took its turn at edging, until each had slipped off many times. When at last they became tired of this aerial coasting, they silently disappeared in the darkness of the woods.

July 22. The owl play still continues nightly, and Evan and I take part in it and likewise gain a fine view of their antics by flashing a small electric search-light into the deep shadows, thus catching grotesque poses and their amazed and dazed expressions. Last night two of the owlets ventured close to the house, and sat for some time atop the clothes poles, turning their heads about so completely that they threatened to wring their own necks; then snapping their beaks, they crooned, and conversed quite plainly in high-class owl, much to Bluff's indignation, until he howled furiously and dashed at the poles so desperately that they lurched away, uttering unmistakable swear words.

This is hollyhock week, and the forest of gayly-draped stalks flanks half the length of the long walk, overflows the corner of the bank wall, and straggles in a crowd toward the barn, where it forms a hollow square about the chicken house. The hollyhock disports all colors and tints—white, pink, cerise, crimson, apricot, yellow, and blush, both with a decided pink eye and a rosily diffused center.

Having been let alone for several years, the single or half-double flowers predominate, and I am quite sure that I prefer them to the heavy double blossoms, whose chief claim is their solidity of form and color; otherwise, they are nearer akin to the paper roses that garnish Christmas mutton, than to garden flowers.

The phloxes that have massed themselves, regardless of color, are showing bloom—white, crimson, with crimson eye, and dull purple. Neither in color nor form are they as handsome as the young plants we set out last October, among which many new shades of cherry, salmon and rose appear.

Phloxes especially require frequent re-setting, else they crowd themselves out, the flower clusters grow small, while they lapse to the parent colors from which they were hybridized more rapidly than other hardy plants. Now are the nasturtiums rampant, and their trellis seems consumed with a flame that reaching over has caught the salvia tips. The annuals that I bought from the "Yellow Journal" catalogue are making a fine showing, having an alcove all to themselves, and Evan almost acknowledges that the Pekin Perfection Carnation Poppy is gorgeous, "at least at present," he added cynically.

The first planting of gladiolus is in bloom, and I have been surprised and fascinated by the beauty of the new hybrids. Here, too, the range of color covers everything but blue, and the exquisitely shaded and veined flowers, no longer contracted and stiff, but winged and poised gracefully on the stalks, seem more like a new discovery than a development.

The moon gets up late nowadays, having a slantwise, rakish look, and I am often tempted to leave bed for my window, where I could sit for hours listening to the owlets' shivery laugh, and looking down at the groups of striped and spotted eulalia that shimmer like fountains in the moonlight. Delia, who is to be married on Sunday evening, she having failed to get her dispensation owing to the reluctance of the bridegroom, has asked me to have the owls killed, as, if they cross her path the night of the wedding, ill-luck will surely follow her. A nice way to cast the sure result of her own folly upon Fate impersonated by me! But the owls are quite safe.

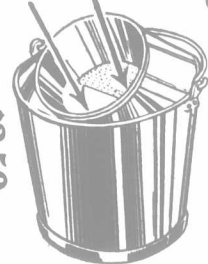
The improvident song sparrows that built in the rose spray have not learned wisdom by experience. Yesterday afternoon, as the wind that foretells a shower was sweeping the garden, Bertie discovered their second nest, in which were three young birds. It was set squarely upon a broad corymb of feverfew which, having gone to seed, was ready to snap at any moment, and the other foliage that had sheltered it was beaten down. Silly sparrows! In whose garden were you raised? Were there no honest bushes there?

(To be continued.)

TRADE TOPIC.

In the reference to the advertisement of the Loudon Machinery Co., and their improved stable fittings, in our issue of April 20th, the address was inadvertently given as Galt, whereas it should have read Guelph. This firm claim to be the largest manufacturers of stable fittings in Canada. The dairy stable of the Ontario Winter Fair at Guelph was fitted by them, and were greatly admired for the comfort given the cows. In addition to their swing stanchions, they also supply litter-carriers, water-bowls, hay-carriers, etc. Their catalogue will be mailed free on application.

MILK STRAINER DIRT SHELF



\$2.50

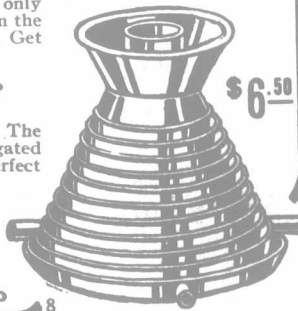
ONE OPERATION MILKING AND STRAINING

Only one milk-pail will do the two operations at one time, and do them right. You can milk in the same way you always do, and at the same time positively keep the dirt from coming into contact with the milk in any way by using the

STERILAC SANITARY MILK PAIL

Look at the illustration at the left. All falling dirt is caught on the raised dirt shelf. The milk passes directly through the strainer, and only the pure, sweet milk as drawn from the cow goes into the pail. Price \$2.50. Get our catalogue

Purity Milk Cooler-Aerator



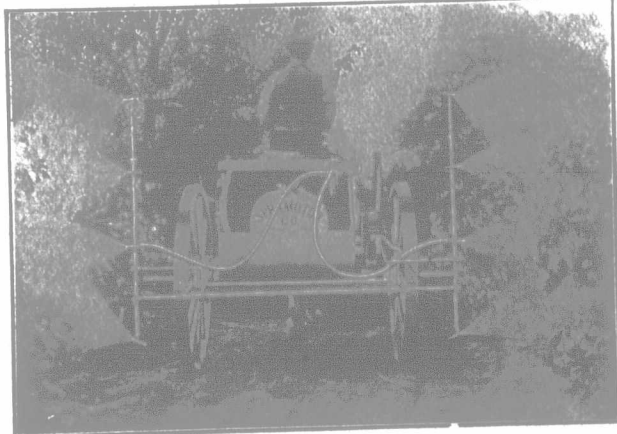
\$6.50

really does cool the milk better and faster than any other. The simple construction makes it easy to clean and the corrugated surface keeps the milk flowing slowly, making certain of perfect cooling. The top is removable, so that ice may be put in either running water, well or spring water. The price is only \$6.50, and the cooler will pay for itself in time saved and in better quality of product. Write to-day for our catalogue showing a full line of Dairy Supplies.

W. A. DRUMMOND & CO., 175 King St. E., Toronto

HORSE-POWER Spramotor

High pressure, 100 to 200 lbs., for 1 or 2 horses. Over 500 in use. Automatic regulator (no safety valve) nozzle protector. 12-gal. air tank, largest capacity. Can be hand operated. Nozzle controlled automatically, as to height, width and direction. Also for orchard, melons, potatoes, etc. The largest line of spraying machines in the world. Guaranteed against all defects for one year. Particulars free—NOW. This ad. will not appear again in this paper.

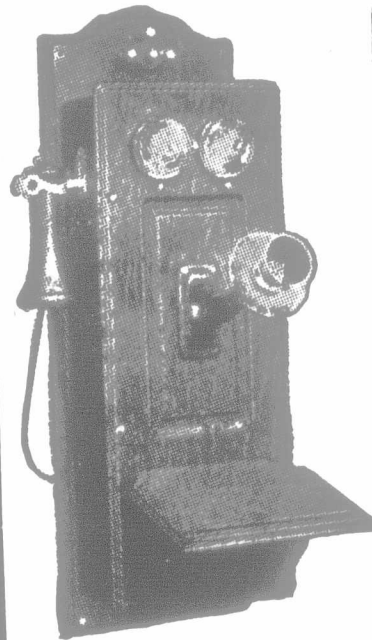


Spramotor, Ltd., 1361 King St., London, Canada.

Install Canadian Independent Telephone Equipment and improve your service

If you are continually having trouble on your telephone line it is because of inferior equipment. In that case it would be wise to test some of our equipment. We furnish apparatus that will transmit your voice so clearly, naturally and strongly

that your friend at the other end will never have to guess who's speaking. With our superior equipment you can improve your service greatly, and at the same time lower your maintenance cost by reducing your trouble-expense.



Our telephones are guaranteed for ten years against defect in material or workmanship. We send them for Free Comparison Test on your line. Write us for full particulars.

We carry in stock a complete line of first-class construction material, and you cannot afford to use any that is not first-class.

Canadian Independent Telephone Co., Limited

20 Duncan Street, Toronto

When Writing Advertisers, Please Mention "The Farmer's Advocate."

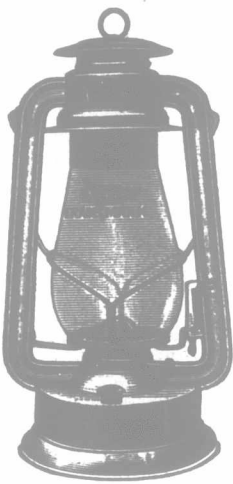
"BANNER" Cold Blast LANTERN

Perfect
Adjustment

Handsome
Appearance

Very Large Well

Patent Lift-lock



We Invite
Comparison

Costs No
More Than
Inferior
Lanterns

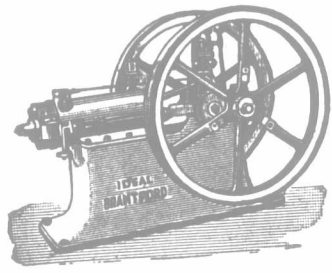
If your dealer doesn't stock them, write:

Ontario Lantern & Lamp Co., Limited
HAMILTON, ONTARIO.

IDEAL GASOLINE ENGINES

1/4 TO 50 HORSE-POWER

Windmills
Grain
Grinders
Pumps
Tanks

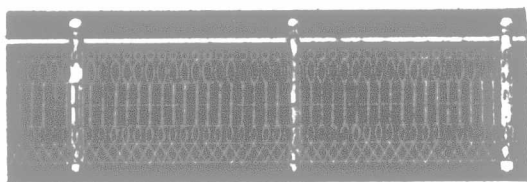


SEND FOR CATALOGUE.

Water
Boxes
Concrete
Mixers
Etc., Etc.

Goold, Shapley & Muir Co., Limited
BRANTFORD, CANADA.

CYCLONE WIRE FENCES



16c. TO 20c. A RUNNING FOOT.

If our goods are not represented in your district, we will send you the conditions of our agency proposition.

THE CYCLONE WOVEN WIRE FENCE CO., LIMITED
Head Office: 1170 Dundas St., Toronto, Ont. 137 Youville Sq., Montreal, Que.

Our Many Styles of
Ornamental Fences
are Dipped in Green
or White Enamel.

WRITE FOR FULLY
ILLUSTRATED
CATALOGUE.

NORTHWEST FARM LANDS

Half a million acres of wild and improved lands near railway. All specially selected in the most fertile districts.

Special excursion in the spring to see these lands.

Write now for particulars as to prices and location.

STEWART & MATHEWS CO., LIMITED
A few good agents wanted. Galt, Ontario.

WHEN WRITING ADVERTISERS MENTION THE FARMER'S ADVOCATE.

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.

Veterinary.

SKIN TROUBLE.

Four-year-old colt has had some skin disease since he was a sucker. It seems to be some kind of dandruff. I clipped him, and am now using creolin in water, applied with a brush. C. C.

Ans.—The colt is congenitally predisposed to skin trouble, and its recurrence will be hard to prevent. Use the creolin lotion warm, and of the strength of 1 part creolin to 20 parts water. In addition, give him 1 ounce Fowler's Solution of Arsenic, twice daily for ten days. V.

FATALITY IN COW.

Had a cow running in the Record of Performance. I was feeding half bushel of silage morning and night, all the straw she would eat, and four quarts each of oat chop and wheat bran, with a handful of cotton-seed meal. She was milking heavily. In February, she tested 9 per cent. butter-fat by the Government Inspector. At 5 o'clock one evening she was fed her silage and then drank a great deal of water. She was then fed her meal, and she milked as usual. At 11 o'clock she was found dead. She had eaten everything. She was lying on right side, with tongue out, and was bloated. A post-mortem revealed the heart full of clotted blood, liver a bluish color, with light spots the size of 25-cent pieces, and all stomachs very full of food and grass.

What caused her milk to test so high, and what caused death? W. F.

Ans.—Death was caused by bloating, which was probably caused by a heavy drink of water just after eating the silage, and this followed at once by a full feed of grain. The cow's digestive organs were probably overtaxed by heavy feeding. Her liver was diseased (probably tubercular). This tends to indigestion, and, with the causes mentioned, was the exciting cause of the fatal attack.

The high test was due to the individuality of cow. V.

WEAK FOAL.

1. Mare, carrying her foal, was not given much exercise during the winter on account of deep snow. She was bred in March, 1910, and foaled on April 6th, 1911. The foal was weak. It was a large, heavy foal. When about three hours old, the mare was milked and the foal given the milk, and afterwards the foal held up and allowed to suck. It was given two tablespoonfuls of castor oil. We fed it at intervals during the day. At 9 o'clock at night we left it. The next morning it was unable to raise its head, so we fed it again with milk and a little whiskey; also gave it injections, and it had a passage. It died about 10 o'clock.

2. Do mares carry male foals a month longer than females?

3. Was the castor oil all right?

4. The foal's feet were soft and spongy, and the horn came only half-way down. Was this normal?

5. Cow went off feed and failed in milk. C. W. B.

Ans.—1. Foals sometimes are weak when born. Lack of exercise during pregnancy tends to cause this. All that can be done is hold them up to nurse. This should be done every hour, or at least 1 1/2 hours, until they can rise and help themselves. The long fast from 9 at night until next morning so weakened it that it could not recover. It is possible if it had been attended to hourly, it might have lived.

2. No.

3. It did no harm, but it is wise to depend upon injections.

4. This was normal.

5. Purge with 2 lbs. Epsom salts and 1 ounce ginger. Follow up with a tablespoonful of equal parts sulphate of iron, gentian, ginger and nux. vomica, three times daily. V.

Miscellaneous.

BEEES AND BOOKS.

1. Where could I get some good bees for starting?

2. Where could I get a good book on bees?

3. And also book on farming? D. E.

Ans.—1. Consult our advertising columns, or insert a small advertisement in the Wants and For Sale column.

2. A. B. C. X. Y. Z., of "Bee Culture." Order through this office.

3. See list of books in our farm library, issue which appeared January 24th, 1911.

DIMENSIONS OF SILO—CLOVER CATCH.

I always look forward to the time when "The Farmer's Advocate" comes, because I get good, reliable information from it. I would like your advice about building a silo.

1. Is it most economical in the end to build a ten-foot cement silo 33 feet high, or a twelve-foot silo 30 feet high? I do not care to grow more than five or six acres of good corn at the outside. I can get a twelve-foot one built same price as a ten, for the building. Which is there most waste from, the top or the sides? Is there much waste round the edges of a cement silo which is plastered on the inside?

2. Are the chances of getting a good stand of clover good, with mixed oats and barley, a bushel of each to the acre, or is it better to sow less to be safe?

3. What kinds of corn are the best for getting well-matured silage, and is it better sown with the drill or in hills, by hand? R. M. B.

Ans.—1. Probably, under the conditions you specify, it would be more economical, so far as cost is concerned, to build 12x30 feet, but we should build 10x35 feet, all the same. It is a decided advantage to be able to take off a little greater thickness daily when feeding, and, if some silage is left over for summer, there will be less decayed silage on a silo of the smaller diameter. There should be little or no actual waste around the edges of a well-built cement silo, except, perhaps, for a few feet near the top.

2. We are wondering ourselves concerning that very point.

3. Small White Cap, Compton's Early, and Bailey, should mature pretty well in your locality. Plant in hills, either by hand, or with the check-row planter.

GOSSIP.

CLYDESDALES AND HOLSTEINS, BY AUCTION.

An auction sale of more than ordinary interest to the farmers of Ontario, will be held at the farm of F. H. & W. F. Elliot, two miles north of York Station, on the G. T. R., five miles east of Toronto, on Tuesday, May 23rd, when there will be sold forty head of registered Holstein cattle and several registered Clydesdale mares and fillies. Among the Holsteins are such high-class animals as Inka Sylvia De Kol, with a seven-day butter record of 26.04 lbs.; Delta Gem, with a seven-day record of 20 lbs.; Pauline Berchell Calamity, seven-day record 19 lbs, etc. Practically every one of the entire lot has rich official backing, and this is one of the very best lots of high-class Holsteins ever offered at auction in Canada. The Clydesdales are equally as choice a lot, from one to five years of age, winners at Guelph in the strongest company the country can put up. In next week's issue will appear a synopsis of the breeding of the Holsteins, and the following week something will be said about the breeding of the Clydesdales. The terms will be cash, or six months on bankable paper, with 6 per cent. interest. Catalogues on application to W. F. Elliot, Box 8, Coleman P. O., Ont.

A FINE POINT.

"Tell me," said the newly-rich lady, as they were discussing points of pronunciation, "do you say 'the Rhine' or 'the Rhone'? I hear it both ways."—The Christian Register.

APRIL 27, 1911

Porridge and Water Diet.

Editor "The Farmer's Advocate":

I would like to answer Thos. McMillan's letter on the reciprocity treaty. Are the Americans our neighbors, as Mr. McMillan says? For the last forty years, we Canadians have been ignored and buffeted by the Americans, and during that time we have made our way secure and firm under the protection of the British Empire. Within the last few years, what have we been to the British Empire? Nothing but a burden. But now, when we are on the point of being some use, what happens? The Americans want to cross our path that leads to the British Capital and turn us to the path that leads to Washington. Has Mr. McMillan forgot that hardly a year ago the Americans threatened us and menaced us with a surtax? They may be on friendly terms with us at the present time, but how long will it last? I do not know; nobody knows. Again, Mr. McMillan is turning back to the reciprocity treaty of 1854. It is perfectly true that during the last part of the treaty, production was greatly stimulated in this country, and we got very high prices for our products, but this resulted from the Civil war in the United States; production was checked in the United States; production was stimulated in Canada, and the prices that we obtained for our production during the last six years of the existence of that treaty were very much higher than could be reasonably expected at the present time.

If we do have a reciprocity treaty with the States, what will happen? We will send all our products to the States and throw away our British market. What has the Government and the Department of Agriculture done during these last 40 years? They spent \$500,000,000 building canals, railroads, cold storages to put Canada in connection with the British market, and now, is that money to be wasted? I would like to ask Mr. McMillan what is wrong with Canada at the present time? Is not Canada prosperous? The farmers are the same; working men are well paid. There is not unemployment and poverty in Canada, except what is due to drink, vice, and sickness; and this prosperity is sound; we are independent, well protected, and the sun shines just as well on this side of the line as the other. What more do we want? We must look into the future as well as in the present. But, yet, our farmers are not satisfied. They want the reciprocity treaty so they can get better market for their products. Same old song, over and over. Now, last summer, when the markets were high, is this not true that 90 per cent. of our farmers who had to buy grain, forage, or even butcher meat, did more kicking and chewing over whatever product they bought than it was really worth. But those very same farmers who sold their cattle at \$7 a 100 lbs., or their hogs at \$9 a 100 lbs., I wonder if they did kick? I should not be the least surprised they would be expecting more. Then what would it be with the reciprocity treaty? I suppose we will have to eat porridge and water for breakfast; water and porridge for dinner, and porridge and water for supper.

Now, Mr. McMillan says we shall get better market for our cattle. No doubt Canadian farmers would get a benefit under the agreement, at least for the present. As for our great Northwest, no doubt we all know that the market for second-grade cattle is poor at the present time. Why? Because it is a new country, and if the treaty goes on, our meat-packing industry would be not only injured, but destroyed. It is just as plain as two and two make four, for our Canadian meat-packing industry has no chance whatever against the beef trust of America. Americans would get the hard wheat from our Northwest without paying duty, and drive our millers from the export market. As for hogs, one of the most important products of Ontario, the average price of hogs in the Provinces of Ontario and Quebec is better than it is in the States. As far as eggs are concerned, the better grades are higher in the States, and lower grades are cheaper than in Canadian markets. As for butter, the best creamery butter is better market, and lower grades are cheaper, the same as eggs, hence we would lose our local market. Since December 1st, 1910, up to the present time, lambs are cheaper in Chicago than in Toronto. Poultry

**Get
underwear
that
fits as well
the
second season
as the first.
This brand:**





This underwear won't shrink

Every garment is guaranteed

Just the weight you want, the style you prefer, at a price you'll think fair. Ask for Penman's Pen-Angle Underwear. Have you tried No. 95, medium weight?

PEN-ANGLE
Underwear and Hosiery

Your Last Chance

Order at once if you would have these

BARGAINS

in our surplus stock of Seed Grains.

Prices are for 5-bush. lots or over, f.o.b. Toronto. Bags free.

OATS.		PEAS.	
	Per Bush.		Per Bush.
Scotch-grown Regenerated Banner.	\$1 00	Golden Vine.....	\$1 15
Canadian-grown Regenerated Banner.	65	Black Eye Marrowfat.....	1 40
Abundance.....	65		
White Cluster.....	65	WHEAT.	
White Wave.....	65	Wild Goose.....	1 15
Black Goanette.....	60	White Russian.....	1 35
Irish White.....	60	Red Fye.....	1 35
Sensation.....	60		
Lincoln.....	90	BARLEY.	
Daubeny (the earliest oat).....	90	O. A. C. No. 21.....	1 10
		Mandschuri.....	75
		Duckbill.....	1 00

For prices of CLOVER, TIMOTHY, ALFALFA and FERTILIZERS, see last issue, page 710.

MANGEL SEED Plant Keith's Prizetaker, it is the best; lb., 20c. Toronto, or 25c. postpaid.

SWEDE TURNIP Plant Keith's Prizetaker, it is the best; lb., 20c. Toronto, or 25c. postpaid.

GEO. KEITH & SONS
124 King St. East, Seed Merchants since 1866. TORONTO, ONT.

will be the same. The market for hay is higher in the States, and so is barley, and oats cheaper. But I would like someone to tell me how many farmers in Ontario at the present time, have any grain of any account to sell. Seventy-five per cent. of Ontario farmers buy more grain, besides what they grow of their own, and feed it, which is very wise. We may get some advantage by selling a portion of the higher grade of the products to the States; we shall lose upon a great portion of the lower grade, which, as everyone knows, is the greater proportion of the product.

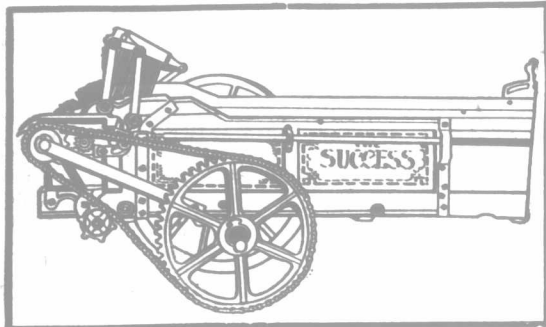
Are Americans sleeping? Not the least; but I am afraid the most of us are. If we don't know, we ought to know, that the American resources are nearly exhausted. Their timber will last for less than thirty years at the present rate of cutting; their anthracite coals will only last fifty years, and bituminous coal for only 900 years. Their supply of iron ore, mineral oil and natural gas, are being rapidly depleted, and many of the great fields are already exhausted. Mineral resources such as these, when once gone, are gone forever.

If the reciprocity treaty goes on, we might as well say good-bye to our timber in the north, our pulp wood, and our mineral, and when they are gone, will the Americans be our friendly neighbors, will it be an opportunity of a lifetime, as Mr. McMillan says? No doubt we will be guided, not through the storm, but in the storm, and into the ruination of this country. I think the most of us better wake up, rub our eyes, and plunge our head in cold water, before we get our eyes opened for us. R. BONNART.
Huron Co., Ont.

When Writing Advertisers, Please Mention "The Farmer's Advocate."

Just One Manure Spreader Is Really Modern

James I. Kemp, known throughout the implement world as "The Father of The Manure Spreader", built manure spreaders for thirty years before he felt that he had attained perfection in this money-saving aid to the farmer. He reached that perfection seven years ago—in the SUCCESS. In it he included every merit, and from it he omitted every defect, his long experience had shown him. Thus it embodies every principle that you want, and lacks every fault that would give you trouble. You should examine it.



Built with more strength than will ever be tested in use, devised so it cannot clog. Gear that controls apron feed and regulates volume of spread, runs in an OIL BATH—so it stays in order and runs easy always.

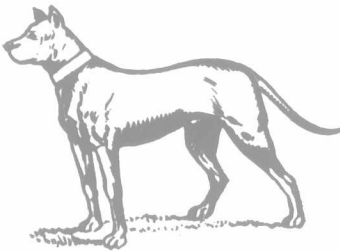
BUILT RIGHT HERE IN CANADA

You are taxed nothing but the bare cost of materials and workmanship, plus a most modest profit, when you buy a "SUCCESS". It is NOT a foreign-made machine. We build it right here in Welland, and we stand back of it in every respect.

7 SETS OF ROLLER BEARINGS MAKE EASY DRAFT

Your horses won't have to strain to draw this manure-spreader—"the spreader that PULVERIZES".

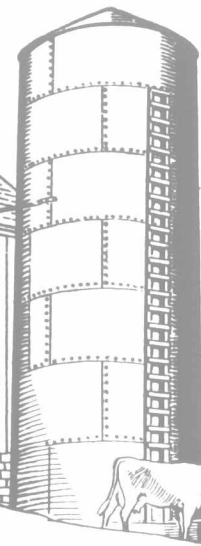
It does run easy; and it does stand up to its work under the hardest strains—because it is built for strength. You should know all about this money-maker and labor-saver before you invest in any manure-spreader. Ask for book.



MFG. CO., LTD. 90 DAIN AVE. WELLAND, ONT.

Have you received a copy of our illustrated Bulletin No. 600, describing

Waterous Steel Silos



Some people have the idea that a steel silo is unusually expensive, that it is difficult to erect, hard to keep from rusting, will attract lightning and will not preserve ensilage better than an ordinary silo of wood or cement.

This bulletin has been written, not so much to advertise this silo as to convince you that these impressions are dead wrong.

We have printed in it a few letters from some of our last years customers that will be sure to interest you.

If you are contemplating the erection of a silo, or if you would "just like to know," send a post card for bulletin No. 600.

THE WATEROUS ENGINE WORKS CO., LIMITED
BRANTFORD CANADA



BICYCLES

Tires and Repair Parts at Cut Prices.

Send for our Free Catalogue.

T. W. BOYD & SON,
27 Notre Dame St. West, Montreal.

QUESTIONS AND ANSWERS. Miscellaneous.

RAILWAY STATISTICS—FIRE RANGING FORESTRY.

As I have been a subscriber to "The Farmer's Advocate" about ten years, and never asked for any information, private or public, I hope the questions I am asking you will be of a sufficiently important nature to be of value to readers of "The Farmer's Advocate."

1. Is there any United States capital invested in the Grand Trunk Railway; if so, how much, and who has the control of it?
2. What is the assessed value of the Grand Trunk land in Canada compared with the assessed value of the land of the same road in the United States?
3. What comparison are the travelling rates on the Grand Trunk in the two different countries, Canada and United States?
4. What amount of land was given to the C. P. R. for its construction in Canada by the Dominion Government?
5. How long was the land exempted from taxation?
6. How long was this land held by the C. P. R. Company before there was a sale of any great amount of it made?
7. How much land do the C. P. R. Company own to-day that was given to them by the Dominion Government for its construction?
8. Is the land that is held by the C. P. R. to-day, that was given to them by the Dominion Government, assessed? If so, to what comparison is it assessed by the land that is owned by the farmers in the same district?
9. If not assessed, what amount of taxes would it bring if assessed for the same value as the farmers are assessed in the same district?
10. Was there any bonus given the C. P. R. by the Dominion Government outside of the land grant? If so, how much?
11. What amount of taxes would be raised in Toronto on manufacturing companies if they were assessed in proportion with other business concerns in the same city?
12. Was there ever a farmer exempted from taxation in the Dominion of Canada?
13. How many millionaires are there in Canada to-day?
14. And what occupations did they follow to obtain it (was it farming)?
15. How much does it cost the Dominion Government for fire rangers during one year?
16. How much damage has been done by fire in our timber limits in the last ten years?
17. On an average, how much does the Dominion Government receive per acre for a timber limit?
18. What is the largest sum of money that is known to have been made by one person or company by reselling timber limits purchased from the Government?

A FARMER.

At considerable pains and trouble, we have answered these inquiries as best we could. The replies concerning railway taxation have been drafted by H. J. Pettypiece, of the Forest Free Press, and those concerning forestry, by our esteemed correspondent, H. R. McMillan, of the Forestry Branch, Department of Interior, Ottawa. We trust the information may be useful to our inquirer.

Ans.—1. There is undoubtedly U. S. capital invested in the G. T. R., but by whom held it is impossible to say without having a G. T. R. annual report. The company has 3,578 miles in Canada, capitalized at \$356,791,114, and 1,151 miles in the United States, capitalized at \$70,413,551.

2. It is impossible to give the assessment of G. T. R. lands in either Canada or the United States. In Canada, the company paid in 1909 taxes to the amount of \$423,852 on 3,578 miles of line, or \$118 per mile. In the United States, in the same year, the company paid in taxes \$636,538 on 1,151 miles, or \$553 per mile.

3. Passenger rates are three cents per mile on the G. T. R. in Canada, and two cents per mile on nearly all the G. T. R. mileage in the United States.

4. Up to June 30, 1909, the C. P. R. had earned and received land grants from

(Continued on next page.)

Eczema was Spreading TILL D.D.D. CURED IT.

This is a translation of a letter written us in French, on April 16, 1910, by Mr. Dan Babineau, Cap Lumiere, N. B.

"I had been suffering with eczema for about six months, and had consulted several doctors who did not do me any good. The disease was spreading, and I was most uncomfortable. I thought I would go crazy. All my friends were telling me I would lose my hands unless I found the right treatment.

One day I read in the Messenger about your D. D. D. treatment, and asked for a sample. It did me so much good that I immediately ordered two large bottles. It took eight bottles altogether to cure me of this terrible disease. I shall never be without a bottle of D. D. D. in my home."

The records of ten years of complete cures of thousands of the most severe cases show that D. D. D. stands to-day as the absolutely reliable eczema cure.

Write to-day for free trial bottle to the D. D. D. Laboratories, Dept. A, 49 Colborne street, Toronto. It will give you instant relief.

(For sale by all Druggists.)

DOES A WASHING JUST LIKE PLAY!

Six Minutes to Wash a Tubful!

Ladies! just see how easy I do a big washing with my 1900 Gravity Washer. I start the tub a-whirling. Then the gravity device under the tub begins to help and the rest is just like play. Washes a tubful in six minutes! How's that for quick and easy work? The 1900 Washer Co. sent me this marvellous machine on trial. They didn't ask for notes or cash in advance. And they let me pay for it a little each week out of the money it saved me! They treat everybody the same way.



You can have one shipped FREE

on thirty days' trial, the same as I got mine. The company will let you pay for it on the same easy terms they offered me. The Washer will actually pay for itself in a very short time. Mine did! I wouldn't take \$100 cash for my 1900 Gravity Washer if I couldn't get another just like it. It does beautiful work—handles anything from heavy blankets to daintiest laces. Every housewife who is tired of being a drudge and a slave to the washtub should write to

F. A. E. Bach, Manager, The 1900 Washer Co., 367 Yonge Street, Toronto, Ontario, for their beautiful Washer Book and generous offer of a Washer on free trial.—Mrs. R. H. Frederick. The above offer is not good in Toronto, Winnipeg, or Montreal and suburbs. Special arrangements made for these districts. 2191

\$15⁹⁵ AND UP-
WARD

AMERICAN SEPARATOR

SENT ON TRIAL FULLY GUARANTEED.

A new, well made, easy running separator for \$15.95. Skims hot or cold milk; heavy or light cream. Different from this picture which illustrates our large capacity machines. The bowl is a sanitary marvel, easily cleaned. Whether dairy is large or small, obtain our handsome free catalog. Address

AMERICAN SEPARATOR CO. Box 1200. BAINBRIDGE, N.Y.

No Duty on Cream Separators.

Buchanan's Self-Compressing Long Sling



—the result of 33 years experience in making Pitching Machines. Consists of three slings and sectional pulley for drawing ends together. Easy to operate, quick to work, and exceptionally strong.

We make all kinds of Pitching Machines—Swivel Carriers and Tracks, Slings, Harpoon Forks, etc. Write for catalogue. M. T. BUCHANAN & CO., INGERSOLL, ONT. 2

APRIL 27, 1911

A

Gasoline Engine

That will run a cream separator better than it can be done by hand.

That will pump water and pulp roots for 40 head of stock for 1 cent a day.

The Connor Machine Co. Limited

Exeter, Ontario.



"17 Cents a Day" Offer Stirs all Canada!

The Whole Country Applauds the "Penny Purchase Plan"

From a thousand different directions comes a mighty chorus of approval, voicing the popularity of The Oliver Typewriter "17 Cents a Day" Purchase Plan.

The liberal terms of this offer bring the benefits of the best modern typewriter within easy reach of all. The simple, convenient "Penny Plan" has assumed international importance.

It opened the floodgates of demand and has almost engulfed us with orders.

Individuals, firms and corporations—all classes of people—are taking advantage of the attractive plan and endorsing the great idea which led us to take this radical step—

To make typewriting the universal medium of written communication!

Speeds Universal Typewriting

The trend of events is toward the general adoption of beautiful, legible, speedy typewriting in place of slow, laborious, illegible handwriting.

The great business interests are a unit in using typewriters.

It is just as important to the general public to substitute typewriting for "long-hand." For every private citizen's personal affairs are his business.

Our popular "Penny Plan" speeds the day of Universal Typewriting.

A Mechanical Marvel

The Oliver Typewriter is unlike all others.

With several hundred less parts than ordinary typewriters, its efficiency is proportionately greater.

Add to such basic advantages the many time-saving conveniences found

only on The Oliver Typewriter, and you have an overwhelming total of tangible reasons for its wonderful success.

A Business Builder

The Oliver Typewriter is a powerful creative force in business—a veritable wealth producer. Its use multiplies business opportunities, widens business influence, promotes business success.

Thus the aggressive merchant or manufacturer can reach out for more business with trade-winning letters and price lists. By means of a "mailing list"—and The Oliver Typewriter—you can annex new trade territory. Get this greatest of business aids—for 17 Cents a Day. Keep it busy. It will make your business grow.

Aids Professional Men

To the professional man the typewriter is an indispensable assistant.

Barristers, Clergymen, Physicians, Journalists, Architects, Engineers and Public Accountants have learned to depend on the typewriter.

You can master The Oliver Typewriter in a few minutes' practice. It will pay big daily dividends of satisfaction on the small investment of 17 Cents a Day.

A Stepping-Stone to Success

For young people, The Oliver Typewriter is a stepping-stone to good positions and an advancement in business life.

The ability to operate a typewriter counts for more than letters of recommendation.

Start now, when you can own, The Oliver Typewriter for pennies.

Join the National Association of Penny Savers!

Every purchaser of The Oliver Typewriter for 17 Cents a Day is made an Honorary Member of the National Association of Penny Savers. A small first payment brings the magnificent new Oliver Typewriter, the regular \$125 machine.

Then save 17 Cents a Day and pay monthly. The Oliver Typewriter Catalog and full details of "17 Cents a Day" Purchase Plan sent on request by coupon or letter.

COUPON

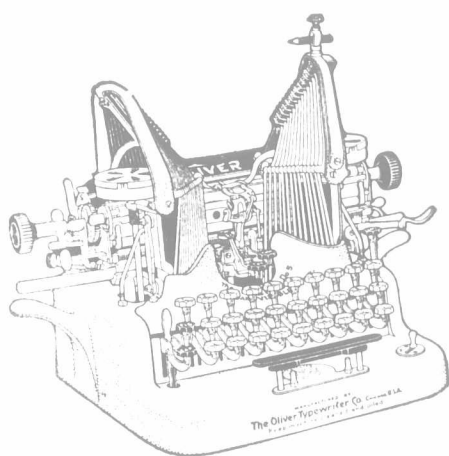
THE OLIVER TYPEWRITER CO.
Oliver Typewriter Bldg., Chicago.

Gentlemen, please send your Art Catalog and details of "17-Cents-a-Day" offer on The Oliver Typewriter.

Name _____

Address _____

Address Sales Department
THE OLIVER TYPEWRITER COMPANY
Oliver Typewriter Bldg., CHICAGO.



the Dominion Government to the amount of 19,816,010 acres.

5. Until the net earnings of the company amount to ten per cent. of its entire capital, including watered stock.

6. Most of the sales have been made within recent years. The company announces that it has still 8,500,000 acres in Manitoba, Saskatchewan and Alberta, for sale at from \$8 to \$10 per acre.

7. The answer to question No. 6 answers this one.

8. It is not assessed until it is sold or improved.

9. Cannot say.

10. The cash bonuses, or subsidies, paid by the Dominion to the C. P. R., up to June 30th, 1909, amounted to \$39,802,528, besides over \$10,000,000 paid by the Provinces and the municipalities. In addition to all this, the Dominion Government handed over to the company lines already completed, and valued at \$37,785,319.97.

11. The Assessment Commissioner of Toronto informs us that he has no such information at hand, because there is none to collect, for the reason that the properties are all assessable as provided by the Assessment Act of Ontario.

12. We are not prepared to assert quite such a broad negation.

13. Don't know; we are not acquainted with all of them.

14. It is pretty safe to say that no one has become a millionaire in Canada by actual farming, apart from speculation.

15. The Dominion Government has charge of the fire ranging in Manitoba, Saskatchewan, Alberta, and about 16,000 square miles along the main line of the C. P. R. in British Columbia. The other Provinces administer their own fire-protective services on public lands. The fire-protective service of the Federal Government dates from 1901; it is constantly growing. Each year, remote districts hitherto unprotected, are supplied with rangers, and each year the more densely settled, more heavily travelled regions are given a more intensive protection.

For this reason, the expenditure for fire protection is not uniform yearly, but is being increased; in 1908, the Federal Government expended \$49,895.17, and in 1909, \$62,300. A portion of this money is refunded by railways and timber-limit holders, on account of a law which requires that railways building through timbered Federal lands, shall refund half of the cost of the fire patrol necessary to prevent fire escaping from the right-of-way, and that the holders of timber limits shall pay half the cost of the fire-protective service maintained by the Federal Government on their timber lands.

The expense of fire protection is, because of meagre appropriations, smaller than it should be. There are about 700,000 square miles of timber lands under the control of the Dominion Government. For 450,000 square miles, chiefly in the far north, there is no fire-protective system, and the other 250,000 square miles were, in 1909, protected by 96 men, and such help as they could secure temporarily in dangerous periods. Fire protection must be made as nearly perfect as possible, and this will require the building of roads, trails, telephone lines, lookout stations and permanent fire-breaks, all of which will, while decreasing the risk, increase the expense.

16. This question cannot be answered with any degree of accuracy. Leaving out of account all the damage occasioned by forest fires impoverishing the soil in some areas, totally destroying it in others, sweeping away all vegetation and most of the food for vegetation, creating unsightly and useless deserts, devastating the catchment areas of streams, and thereby causing extremes of high and low water that yearly result in economic loss, not reckoning any of these instances of permanent and irremediable loss, the damage to the resources of the country, due to forest fires still remains too great for human calculation. It is safe to say that the loss due to past forest fires, would equal in value the total remaining resources of one of the smaller Provinces. The fires of the past ten years even are unknown. In very few instances has it been possible to roughly calculate their value, so far flung are our timber areas, so small the staff available for their examination, and so inaccessible many of the districts in which fires occur. The

(Continued on next page.)

"EASTLAKE"



STEEL SHINGLES

FIRE, LIGHTNING, RUST AND STORM PROOF

SMITH, ONT., April 9th, 1908
"We have handled your 'Eastlake' Shingles for nearly a quarter of a century. They have been on the Court House, Free Library, and other public buildings of this town for 18 years. We have used very large quantities during the past 25 years, and they have always given first-class satisfaction, and have never required any repairs."
(Signed) **MADDEN BROS.**
Tinmiths and Hardware Merchants.

Write for Booklet.
The Metallic Roofing Co. Limited, Manufacturers
TORONTO & WINNIPEG

AGENTS WANTED IN SOME SECTIONS.

GRAND TRUNK RAILWAY SYSTEM

Homeseekers' Excursions


From Grand Trunk Stations in Ontario

To Western Canada (via Chicago), including certain points on Grand Trunk Pacific Railway, May 2nd, 16th, 30th; June 13th, 27th; July 11th, 25th; August 8th, 22nd; September 5th, 19th. Winnipeg and return, \$38.00; Edmonton and return, \$41.00. Tickets good for 60 days. Proportionate rates to principal points in Manitoba, Saskatchewan and Alberta. Homeseekers' excursion tickets will also be on sale on certain dates via Sarnia and the Northern Navigation Company. Secure tickets and illustrated literature from any Grand Trunk Agent, or address A. E. Duff, District Passenger Agent, Toronto, Ont.

Dr. Stewart's Pure Condition Powders

For horses, cattle, hogs and poultry—act a stock food, but a scientific blending of roots, herbs and barks; makes good solid flesh naturally, not artificially. Makes pure blood and cleanses the system. Try it for coughs, scratches, distempers and worms. Two cans guaranteed to put your horse in first-class condition. One large can, 50c., prepaid, at most dealers, or Palmer Medical Co., Windsor, Ont. Veterinary booklet sent free on application.

ACCORDING TO PURE FOOD LAWS. Teacher was telling her class little stories in natural history, and she asked if anyone could tell her what a groundhog was. Up went a little hand, waving frantically. "Well, Carl, you may tell us what a groundhog is." "Please, ma'am, it's sausage."



YOU don't have to SCRUB the hands when you use "SNAP". It removes all stains and dirt, QUICK.

"S-N-A-P" is the original and genuine antiseptic hand cleaner. 15c. a can.

CANADIAN PACIFIC
HOMESEEKERS'
EXCURSIONS

TO
Manitoba, Saskatchewan, Alberta

Special trains leave Toronto 2.00 p. m., on
APRIL 4, 15 MAY 2, 16, 30 JUNE 13, 27
JULY 11, 25 AUG. 8, 22 SEPT. 5, 10

Second-class tickets from Ontario stations to principal Northwest points at

LOW ROUND-TRIP RATES
Winnipeg and return, \$33.00; Edmonton and return, \$41.00, and to other points in proportion. Tickets good to return within 60 days from going date.

TOURIST SLEEPING CARS
on all excursions. Comfortable berths, fully equipped with bedding, can be secured at moderate rates through local agent.

Early application must be made.
ASK FOR HOMESEEKERS' PAMPHLET containing rates and full information.
Apply to nearest C. P. R. Agent, or to R. L. Thompson, Dist. Pass. Agt., Toronto.
ONLY DIRECT LINE. NO CHANGE OF CARS.

ELECTRO BALM
SO SOOTHES
EFFECT
ON ALL
WOUNDS OF
THE FLESH

NEVER YET EQUALLED
AS A COMPLETION BALM
OR SKIN HEALER

"ELECTRO BALM"
CURES ECZEMA

Also Piles, Burns, Scalds, Chapped Hands and Feet

Gentlemen use after shaving. This Balm is handled by the best druggists and is highly recommended by those who have used it.

Write for Free Sample
ENCLOSE 2c. STAMP FOR POSTAGE

50c. a Box at all dealers or, upon receipt of price from

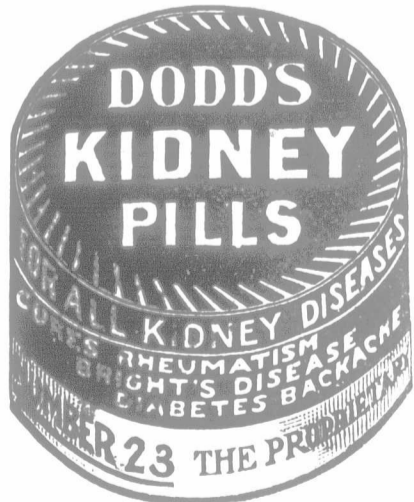
THE ELECTRIC BLEN CHEMICAL CO.,
LTD., OTTAWA.

WHAT'S IN A NAME?
"The negro woman who was willing to take Gibbon's Rome when she found she couldn't get Poems of Passion at the library, had nothing on a boy who appeared at a library in Detroit the other day," said Howard E. Coffin, of that city.

"Ma wants a book," the boy announced.

"All right, my son," the librarian replied. "What sort of a book does your mother wish?"

"She wants one with a red cover. She says she ain't had none but blue covers lately."



value of the merchantable timber destroyed by fire in Canada the past ten years, reckoned at the market price, and including the labor it would employ, would certainly be \$150,000,000. One company in British Columbia has lately secured a judgment of \$650,000 against the Great Northern Railway, to compensate for timber burned in 1909. An examination of a 212 square mile valley in Alberta, revealed that the timber on 179 square miles had been totally destroyed by fire, at a loss to the community of about \$9,000,000.

17. Dominion Government timber limits are sold by the square mile, to the highest bidder, at public auction. They are withdrawn from sale if the price offered is not equal to an up-set price set by the officials of the Department of the Interior. The prices received in Manitoba, Alberta and Saskatchewan, averaged, per square mile, \$95.46, in 1905; \$197.04, in 1906; \$251.44, in 1907, and \$487.46, in 1909. In British Columbia, the average prices received were, per square mile, \$214.82, in 1905; \$444.19, in 1906; \$2,091.84, in 1907, and \$10,954.49, in 1909. There were no sales in 1903. Purchasers of timber limits are required by their license contract to cut a specified amount of timber per year, should the community need it, to pay an annual ground rent of \$5.00 per square mile, to pay a royalty of 50 cents per thousand board feet when they cut the timber, to pay half the per acre cost of fire protection, and to cut the timber under regulations imposed by the Dominion Government.

18. The timber limits taken up under the Dominion Government, have usually been held by the original licensees, and in cases where they have been sold, the consideration received has not been generally known. The Dominion Government has never undertaken investigations such as that prosecuted by the United States Bureau of Corporations, and commented on in "The Farmer's Advocate" a few weeks ago, so it is not possible to state what has been the increase in value of timber limits since they left the hands of the Government. It is known, however, that the chief profit in the lumber business, and often the only profit, has not been in the manufacture of lumber, but in buying standing timber cheaply, and holding it for higher prices. Instances have come to light in Canada which show that the increase in the selling price of timber lands has been very great over a short period of years. One tract was secured from the Government in 1885, for \$25,000. The owner logged it to supply his sawmill until 1908, then refused \$3,000,000 for limit and mill. Another tract was assembled in 1907, for less than \$20,000, and is now held at \$125,000. The greatest increase in selling prices has been in British Columbia, where, within recent years, tracts secured for thousands, changed hands at hundreds of thousands. Instances are known where limits secured originally, less than ten years ago, for \$100,000 or less, have sold for \$2,000,000 to \$4,000,000.

TRADE TOPIC.

Spring is the favorite season for painting. A fresh coat of paint greatly improves the appearance of the house or other buildings, while preserving them from decay. It pays well to paint before the building begins to look shabby, as the longer it is delayed the more paint is required to make a good job of it. See the advertisement in this paper of the Imperial Varnish & Color Co., Toronto. Ask your dealer for information, and for the Maple Leaf Paint Card, or write the company for one. Address, The Imperial Varnish & Color Co., Toronto, Ont.

Here is a story which Professor Bailey, of Cornell, enjoys telling on himself. One day he dropped into an old book emporium in a certain Western New York city, and there found an edition which he wanted. Asking its price of the bookseller, he was told that it was \$5. Thinking this rather steep, Professor Bailey said: "Don't you think that is a pretty high price for an old book?" "Well," said the bookseller, "it may seem so to you, but it really doesn't make any difference to me whether you buy or not, for there's an old fool down at the end of the name of Bailey who'll take it for \$5 just as soon as I offer it to him."

Rupture Cured Without Operation

No Hospital or Doctors' Bills; No loss of Time from Work, and Not a Single Penny to Pay if You Don't Get Better.

No longer any need to drag through life in the clutches of rupture.

No operation, no big expense to stand in your way. And not a single cent's worth of risk.

Think of that—you who have spent dollar after dollar without finding a thing that has done any good. You who have been afraid that some day you'd have to risk the dangers of operation—you who dread the surgeon's knife because you know it results in permanent weakness or death about as often as in recovery.

In the last 24 years more ruptured people have been cured without operation than by all the operations ever performed.

Cured without being in bed a single day—without losing a single hour from work.

Cured by the wonder-working Cluthe Truss (Cluthe Automatic Massager)—something so remarkably beneficial that in 99 cases out of every 100 relief is immediate, and in most cases cure begins at once. For this is far more than a truss—far more than merely a device for holding the rupture in place.

Try it at Our Risk.

We have so much faith in the Cluthe Truss that we are willing to let you prove, by trying it at our risk, just what it will do for you.

If it fails to hold your rupture securely in place, when working and at all other times—if it doesn't do you a world of good—then it won't cost you a single cent. All guaranteed in writing.

Cure Takes Place While You Work.

A Cluthe Truss—right from the first day—will put an end to all danger of your rupture coming out.

And, in addition—while you go on working, remember—it soon overcomes the weakness which is the real cause of rupture.

Does it by massaging the weak ruptured parts—All entirely automatically.

And this stimulating massage strengthens just as exercise strengthens a weak arm—in most cases soon makes the ruptured parts so strong that no sign of the rupture is left.

That is how the Cluthe Truss has cured some of the worst cases of rupture on record—cured many of them after everything else, including operation, had proven utterly useless.

Free Book Tells All About It.

So that you can judge for yourself, we want to send you—free—our cloth-bound book of advice.

It sums up all we have learned in 40 years of day-after-day experience. It deals with rupture in all its forms and stages; explains the dangers of operations; puts you on guard against throwing money away.

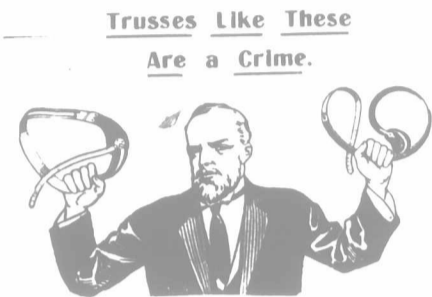
And it tells all about the Cluthe Truss—how little it costs—how it ends all expense—how it is water-proof—how it has no springs, band, belt or elastic around your waist, no leg-straps, nothing to pinch, chafe, squeeze or bind. And how you can try a Cluthe Truss entirely at our risk.

Write for the book to-day—don't put it off—this book may be the means of adding many years to your life and of restoring you to full strength and usefulness.

Simply say in a letter or postal: "Send me your book." In writing us, please give our box number.

Box 109 — CLUTHE INS'TITUTE
125 East 23rd St. New York City

The minute it takes to write for this book may free you from suffering for the rest of your life.



Trusses Like These Are a Crime.

Dr. Williams' Fly and Insect Destroyer

IS MANUFACTURED SOLELY BY

BAKER & BOUCK, MORRISBURG, ONT.

Points of Emphasis.

1. The farmers' friend.
 2. Protects horses and cattle.
 3. A veritable vermicide.
 4. A perfect disinfectant.
 5. Perfectly harmless.
 6. Easy of application.
 7. Increases supply of milk.
 8. Kills all the bad germs in your stable, henhouses, etc., prevents roup and hen cholera, and arrests abortion in cattle. Has cured distemper in two days.
- N. B.—Finest vermin destroyer and disinfectant known.

Notice.

The general satisfaction cows will manifest when freed from the annoyance of flies.

The increase in the amount of milk they will give.

The comfort and ease in milking.

The hen get busy at her nest to lay the golden winter egg.

The absence of hair-lick on the cows' sides.

The healthy condition of your porkers' epidermis.

Be progressive and use DR. WILLIAMS' FLY and INSECT DESTROYER. We guarantee it to do all that we claim for it. If not satisfied, we want to hear from you.

The Three Grandest Disinfectants: 1. Sunshine; 2. Air; 3. Dr. Williams' Fly and Insect Destroyer.

None genuine without the facsimile signature of W. Williams on a yellow label printed in black.

J. A. Brownlee, 385-7 Talbot St., London, Ont.,
SOLE AGENT FOR LONDON DISTRICT.

J. A. Johnston & Co., Toronto, Ont.
John Fowell,
Travelling Representative
Woodstock, Ont.



Write for Free Booklet

"How to Raise Calves Cheaply and Successfully Without Milk"

Contains full information and complete feeding directions for using

Blatchford's Calf Meal—The Perfect Milk Substitute

Three or four calves can be raised on it at the cost of one where milk is fed.

No mill feed. The only calf meal manufactured in an exclusive Calf Meal Factory

Established at Leicester England, in 1800

STEELE, BRIGGS SEED CO., LTD., TORONTO, ONT.

APRIL 27, 1911

QUESTIONS AND ANSWERS.
Miscellaneous.

ALFALFA AS PASTURE.

Does alfalfa make good pasture for (a) horses and spring colts; (b) cows or young calves; (c) pigs? L. E. E.

Ans.—It makes excellent pasture for all these classes of stock, though a certain degree of ordinary precaution should be observed to see that ruminants do not bloat when pastured upon it. The grazing of horses or sheep is hard on the stand. In fact, the pasturing of any class of stock is hard on it, unless the field is one particularly well adapted to the crop.

QUANTITY MATERIAL FOR WALL.

How many cubic yards of gravel, and how many barrels of cement would it require to build a cellar wall the perimeter of which would be 150 feet, height 7 feet, by 12 inches thick, and 40 feet of cross-walls, 7 feet high by 10 inches thick? Stone fillers to be used in the construction. A SUBSCRIBER.

Ans.—The amount of material required for above-mentioned walls, supposing that one-fourth of space would be occupied by stone fillers, would be about 41 cubic yards of gravel, and 35 barrels of cement, mixed 1 to 8.

DOCKING HACKNEYS.

Why do all cuts of Hackney horses show them docked? All I ever saw, unless half-bred, were docked. The docking will prevent me from ever owning a pure-bred one, if all pure-bred ones are docked. D. B. S.

Ans.—Docking is supposed to set off the appearance of a carriage-bred horse. Opinions may differ as to whether or not it does so, though most men would probably vote in the affirmative. For our part, we do not like the idea of removing a horse's fly protection. There is no reason why you could not raise pure-bred Hackneys without docking them, though you might find difficulty in making sales.

PROPAGATING SWEET BRIER.

Kindly give instructions for starting hedge of sweet brier. Will berries of last season grow, and by what treatment? AMATEUR.

Ans.—Probably the best way of starting a sweet-brier hedge is to grow from seed. There are difficulties in the way of securing germination of rose seeds, but they can be overcome, and, in the end, the plants are cheaply produced, and good. The seeds of sweet brier (*Rosa Rubiginosa*) should be gathered in autumn, and at once stratified with moist sand or allowed to ferment in tubs, with a little water, and kept in a fairly warm place. When well rotted, they can be easily rubbed and washed clean, and should be planted at once, either in carefully-prepared and well-manured beds, out of doors, or in flats in a cool greenhouse. Sweet brier seeds, planted out of doors in November, 1911, may be expected to germinate in the spring of 1913. Seed sown out of doors should be mulched with pine needles, or other litter, two inches deep. Frequent examinations should be made in spring, and the covering at once removed when the seedlings appear. If they do not appear, let the mulch remain to keep down weeds and retain moisture in the seedbed. Pans, or flats, in which seed has been planted, should be kept at least 18 months before discarding, with the soil always moist.

When started, the young seedlings make most satisfactory growth, and can generally be transplanted into nursery rows when one year old. When two years old, they are fit for permanent planting. Other varieties of roses, such as *R. canina*, *R. multiflora*, *R. ferruginea* and *R. rugosa*, may also be reproduced economically from seeds.

R. W. Walker, Utica, Ont., near Port Perry, G. T. R., and Myrtle, C. P. R., breeder of Shorthorn cattle, in ordering a change in his advertisement, writes: "I have sold the two cows named in my last advertisement." A few very choice bull calves, from heavy-milking and high-testing dams, are offered in the new advertisement.

Cover
your buildings
sanely

Buy roofing as you'd buy any farm implement—use the same judgment—and you will choose the kind that will last longest and cost least for repairs. Do that, and your choice is limited to metal shingles—the only practical, the only economical, roofing made. There are several good metal shingles made in Canada. Any of these makes far surpasses wood shingles in every respect—more durable, ten to one—fireproof—weathertight—rustproof. But one make surpasses all the others—and that is Preston Safe Lock Shingles. Don't accept this offhand as fact. Let it be proved to you. Let us show you why our shingles MUST outlast others, because ours pass the stringent tests of the British Government for galvanized metal. Let us prove to you why our safe-lock principle is the perfect method of overlapping sheet metal plates so as to make them absolutely wind-defying and water-tight. Write to-day for free book, sample shingle, and prices and name of nearest dealer. Address



PRESTON
SAFE-LOCK
SHINGLES


Metal Shingle & Siding Co., Ltd.
 Manager Queen Street Factory
**PRESTON, ONTARIO, and
MONTREAL, QUE.**

STEELE-BRIGGS SEEDS

USE ONLY THE VERY BEST

TESTED FOR GERMINATION

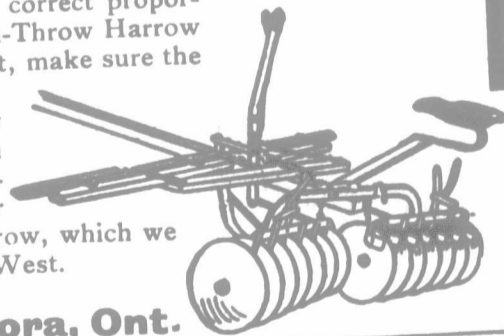
TESTED FOR PURITY

SOLD BY LEADING MERCHANTS EVERYWHERE

To be genuine
it must bear
the name
"Bissell"

Because of the great success of the "Bissell" In-Throw Harrow several of its features have been imitated on other harrows. But no other harrow will give equal results unless it is built *exactly* the

same. The plates of the "Bissell" could be put on other harrows, but they wouldn't cut deep into the soil and stir it up thoroughly like they do on the "Bissell." The reason why the "Bissell" has such wonderful capacity is not due alone to the shape of the plates, nor to position of frame and seat, but because all parts are in the correct proportion. If you want the In-Throw Harrow that wins every field test, make sure the name "Bissell" is stamped on it. Write Dept. W for booklet describing both our In-Throw and Out-Throw Harrows, and our 16-plate Wide-Cut Harrow, which we make especially for the West.



T. E. Bissell Co., Ltd., Elora, Ont.

The EMPIRE Line

"Everything that's good in Cream Separators"

Empire Cream Separator Co. of Canada, Ltd.

WINNIPEG
TORONTO
SUSSEX, N.B.

Cut out, fill in and send this coupon to us by next mail and you will receive by return mail a most interesting and instructive book for dairymen. Act promptly.

Name.....
P. O. Address.....
Province.....

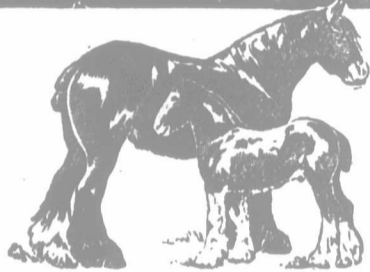
Was So Bad With Heart and Nerves Could Not Sleep At Night.

Many men and women toss night after night upon a sleepless bed. Some constitutional disturbance, worry or disease has so debilitated and irritated the heart and nervous system that they cannot enjoy the refreshing sleep which comes to those whose heart and nerves are right.

Mrs. John Gray, Lime Lake, Ont., writes:—"Last summer I was so bad with my heart and nerves that I couldn't sleep at night. There was such a pain and heavy feeling in my chest that I could not stoop, and at times I would become dizzy and have to grasp something to keep from falling. I tried different things but never got anything to do me any good until I tried Milburn's Heart and Nerve Pills and I can now recommend them to all troubled as I was."

Milburn's Heart & Nerve Pills are 50 cents per box, or three boxes for \$1.25, at all dealers, or mailed direct by T. Milburn Co., Limited, Toronto, Ont.

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A small premium will secure a policy in our Company, by which you will be fully insured against any loss resulting from the death of your mare or its foal or both. Policies issued covering all risks on animals, also transit insurance, at all times, in all cases. Prospectus free on demand.

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Fleming's Spavin and Ringbone Paste

to remove the lameness and make the horse go sound. Money refunded if it ever fails. Easy to use and one to three 45-minute applications cure. Works just as well on Sidebone and Bone Spavin. Before ordering or buying any kind of a remedy for any kind of a blemish, write for a free copy of

Fleming's Vest-Pocket Veterinary Adviser

Ninety-six pages of veterinary information, with special attention to the treatment of blemishes. Durable bound, indexed and illustrated. Make a right beginning by sending for this book.

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ABSORBINE

will reduce inflamed, swollen joints, Bruises, Soft Bunches, Cure Boils, Fistula or any unhealthy sore quickly; pleasant to use; does not blister under bandage or remove the hair, and you can walk the horse. 50¢ per bottle, delivered. Book 7 E free.

Mr. Robt. Jones, Sr., Marmora, Ont., writes, April 8, 1907: "I had a valuable horse with a big leg, and used one bottle of ABSORBINE, and it cured him completely."

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Lymans, Limited, Montreal, Canadian Agents.

INVENTIONS Thoroughly protected in all countries. EGERTON E. CASE, Registered U. S. Patent Attorney, DEPT. E, TEMPLE BUILDING, TORONTO. Booklet on Patents and Drawing Sheet on request. PLEASE MENTION THE ADVOCATE.

QUESTIONS AND ANSWERS. Miscellaneous.

CURING PORK.

Give a recipe for pickling and curing pork, and how to arrange same.

J. R.

Ans.—Several methods of curing pork are recommended. Choice can be made of two that are given here: (1) Take 9 lbs. salt, 3 lbs. sugar, 1 pint molasses, 3 ounces saltpetre, 1 ounce soda, 5 to 6 gallons water. Heat slowly till salt is dissolved. Boil and skim, and cover meat in five or six weeks. Then smoke every day for a week. (2) To salt pork dry, take a mixture of 4 lbs. good fine salt, 1½ lbs. brown sugar, and 2 ounces saltpetre for every 100 lbs. of meat. Apply three times for hams and shoulders, and twice for bacon, rubbing in well, at intervals of about a week.

See article on "Curing and Keeping Pork," in April 27th issue.

SEEDING DOWN SWAMPY LAND.

Kindly advise how to get a piece of swampy land seeded down with grass seed so as to get a good catch. What kind of grain should it be sown with in spring or fall? I have tried it often, but never succeeded. Would it be best to summer-fallow it? The land is well drained, but the water stands on it in spring for a few days, then it dries off.

F. S.

Ans.—It seems strange that it should be so difficult to get a catch of grass seed on this drained swamp land. We should try again, sowing it with thin seeding of barley, and as early as the ground is fit to work. Would cover the seed somewhat more deeply than is necessary on ordinary soil. Would also advise sowing about 200 or 300 lbs. of salt per acre, after the grain is up. It would likely help the grain crop, and, possibly, might be of some benefit to the young grass by tending to keep the surface soil somewhat moist.

COAL ASHES FOR FLOOR—AFTERBIRTH RETAINED.

1. I have hopen 24x46 feet, in which I have a gangway about ten feet wide along the side, and partitioned off. This gangway is right along behind my cows, where the water comes from a tank. I will have pipe leading right in for the hogs, and the ten-foot gangway will be for calves, and for sows farrowing. I will have two half-gates, so as to make a box stall at any time when needed. Now, I was thinking of putting coal ashes, mixed with salt, for a bottom to be watered and tramped down solid. Do you think that will be a good plan or not? I thought it would save cement. Please tell me how thick you would put the ashes.

2. I have two cows that freshened, and the afterbirth had to be taken away. Could you tell me what caused the difficulty, and what the remedy is?

A DUNDAS FARMER.

Ans.—1. The plan you suggest of using coal ashes for bottom of box stalls would make, we believe, a firm floor. The question with us would be whether it would be water-tight, and save the liquid manure. We are not in possession of facts regarding that, and, on the whole, would advise going to the expense of using cement. If ashes are put in, would have a depth of six inches.

2. Retention of afterbirth occurs under varying conditions. Veterinarians say there is no known remedy, but many dairymen have faith in the feeding of flax seed or even oil cake for a few days before calving. Several letters on the troubles incident to calving time, written by practical men, have lately appeared in "The Farmer's Advocate." They are worthy of careful reading.

Wm. Smith, Columbus, Ont., writes: "I have sold all my bulls, with the exception of one Wedding Gift calf, ten months old. This calf is red, and is one of the good kind we like to see. I have had Royal Clare =66772= at the head of my herd for over three years, and, as I have purchased another to take his place, and a great number of his heifers are ready to breed, I have no further use for him, but it is a shame to sell him for beef as he is one of the best sires I ever had and is sure. Also have a number of fine, growthy heifers, all ages, that I will sell worth the money."

No More Sore Shoulders



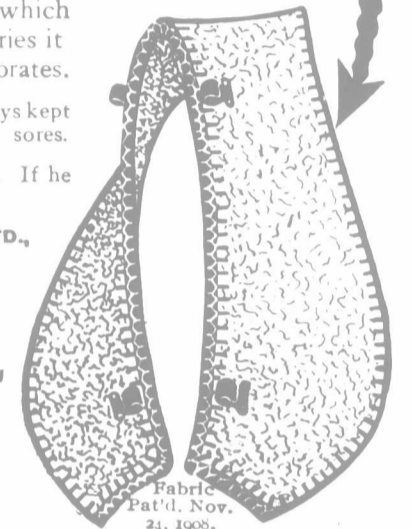
Ventiplex is as soft and comfortable to the horses' shoulders as the best ordinary collar pad made—but it is a great deal more besides. It is the only pad that absolutely prevents galls and sore shoulders. Every other collar pad made is close and non-absorbent, so that sweat forms and accumulates under the collar, scalding the flesh and causing sore necks and shoulders. Ventiplex, the new collar pad, is made of a new, patented fabric which absorbs the sweat and moisture and carries it to the outer surface, where it evaporates.

Thus the horse's neck and shoulders are always kept dry, comfortable, and free from galls and sores.

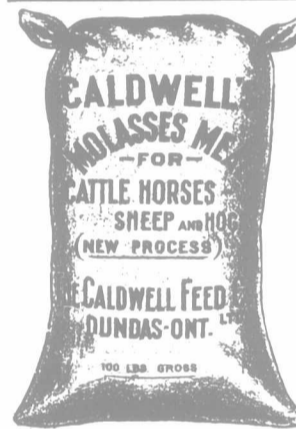
See the Ventiplex Collar Pad at your dealer's. If he cannot supply you, write us. Booklet free.

BURLINGTON-WINDSOR BLANKET CO., LTD., Windsor, Ont.

TRADE MARK
Ventiplex
PADS



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CALDWELL'S Molasses Meal

For Horses, Cattle, Sheep and Hogs

Contains from 80 to 84 per cent. pure cane molasses (not a particle of sugar-beet by-product enters into its composition). A digestive feeding meal, convenient to handle, economical to use, and gratifying in its results. Nothing to equal it for finishing stock. Ask your dealer, or write:

The Caldwell Feed Company, Dundas, Ontario

WILLOWDALE STOCK FARM HAS NOW FOR SALE

a choice lot of young stock of each of the following breeds:

Clydesdales, Shorthorns, Chester Swine, Shropshire Sheep

Some extra good young bulls, descendants of Joy of Morning and Broad Scotch.

Write for prices and catalogue to: J. H. M. PARKER, Prop., LENNOXVILLE, QUE.

CLYDESDALES—Imported and Canadian-bred
Our several importations per year place us in a particularly favorable position to meet all demands for the best and most fashionably bred representatives of the breed. We are never undersold, and give favorable terms. **ROBT. NESS & SON, HOWICK, QUE.**

Auction Sale of Fifteen Imported Clydesdale Fillies

AT ORMSBY GRANGE STOCK FARM, ORMSTOWN, P. Q., on the 2nd day of Ormsby's Great Spring Show, 24th May, 1911. They are by Baron's Best, Lord Derwent, Pride of the Lothians, Sir Geoffrey and Silver Cup. A rare opportunity to buy the best at lowest prices. **D. McEACHRAN.**

7 Imported Clydesdale Stallions 7 2, 3, 4 and 5 years of age. We are showing a choice selection, with type, quality, breeding and character unexcelled. Our prices are right, and our terms are made to suit. Phone connection. **Crawford & McLachlan, Widder P. O., Ont. THE DUNDAS STATION.**

IMP. CLYDE STALLIONS AND FILLIES

Imported Clyde stallions and fillies always on hand, specially selected for their size, type character, quality, faultless action and fashionable breeding. Prices right. Terms to suit. **GEORGE G. STEWART, Howick, Que.**

Imported Clydesdales My new importation of Clydesdale stallions for 1910 have arrived. They were selected to comply with the Canadian standard, combining size, style, quality and faultless underpinning with Scotland's richest blood. They will be priced right, and on terms to suit. **BARRER BROS. GATINEAU ST. QUEBEC.**

A FEW CLYDESDALE SELECTS LEFT. I have one 6-year-old Clydesdale stallion that is hard to beat for size, quality and breeding; 6 others, rising 3 years, that are big, drafty, character colts, and bred the best; 3 Percherons rising 3. There is no better selection in Canada, nor no better prices for a buyer. **T. D. ELLIOTT, BOLTON, ONT.**

Mount Victoria Stock Farm, Clydes and Hackneys. We are just now offering exceptional values in Clydesdale and Hackney stallions and fillies, of all ages; prizewinners and champions, highest-class types of the breed, to make room for our new importation. **ED. WATSON, Manager. T. B. MACAULAY, Prop. Hudson Heights, Que.**

APRIL 27, 1911

CLIMB ON!



Your weight or a bull's weight won't bend the CLAY Gate. We have tried five men on a 12' CLAY GATE and it didn't even sag. THERE IS A REASON FOR IT.

Write for circulars and particulars of our sixty-day free trial offer to CANADIAN GATE CO., LTD., GUELPH, ONT.

Clydesdales and Hackneys FOR SALE

We have more prizewinning Clydesdale fillies for sale than any other firm. We have them any age or color you want. Also Hackney and Clydesdale stallions.

Hodgkinson & Tisdale

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Union Horse Exchange

UNION STOCK YARDS, TORONTO, CANADA.

The Great Wholesale and Retail Horse Commission Market.

Auction Sales of Horses, Carriages and Harness every Monday and Wednesday. Horses and Harness always on hand for private sale. The only horse exchange with railway loading wharves, both G. T. R. and C. P. R., at stable doors. Horses for Northwest trade a specialty. J. HERBERT SMITH, Manager

HIGH-CLASS CLYDESDALES

I have for sale eight high-class imported Clydesdale stallions, 3 to 7 years old, sired by some of the best bred and most noted horses in Scotland; up to a good size; full of quality; all good doers; in the pink of condition for the season. Will sell them well worth the money, and on terms to suit, as the service season is approaching. Write for particulars, or better, come and see them at my stables in Markham, G. T. R., 20 miles from Toronto; Locust Hill, C. P. R., three miles distant. Will meet visitors on shortest notice.

T. H. Hassard, Markham, Ont.

YOU WANT A STALLION OR A MARE? Smith & Richardson, Columbus, Ont.

Have some of the choice ones left yet. It will be worth your while to look them over. JUST 35 MILES EAST OF TORONTO PRICES TO SUIT YOU.

NEW IMPORTATION COMING We still have on hand a few first-class stallions that we will sell worth the money in order to make room for our new importation early in the summer. Phone connection.

JOHN A. BOAG & SON, QUEENSVILLE, ONT.

QUESTIONS AND ANSWERS. Veterinary.

WEAK-KNEED COLT.

Colt, nine months old, is going over on knee joints. A. R.

Ans.—No doubt the colt has congenitally weak knees. In such cases standing in a stall high in front is an exciting cause. Applications do no good. Keep him in a box stall, with a level floor, and feed him off the floor. Feed hay off floor, and feed grain out of a movable box, that can be removed when food is eaten. See that he gets regular exercise. V.

THRUSH.

Mare has thrush in one hind foot. It has extended above the hoof and nearly around the leg. A. H. S.

Ans.—Thrush is a disease of the frog, and does not extend to the skin. The trouble above the hoof must be scratches or cracked heels. Keep clean, but do not wash. Keep clean by brushing when dry, and apply 3 times daily a lotion made of 1 oz. each of sulphate of zinc and acetate of lead, mixed with a pint of water. For the thrush, clean out the cleft of the frog thoroughly, and keep horse in thoroughly dry quarters. Mix 1 part formalin to 3 parts water, and pour a little into the cleft, then put a little batting in to keep dirt out. Remove batting and put a little of the fluid in every second day until discharge and odor cease. V.

WEAVER.

I bought a four-year-old horse, and I find that he has a habit of swinging his head from side to side in the stall. One fore toe turns out when either standing or travelling. Is the habit the cause of the toe turning out? F. W. LeL.

Ans.—The habit is a form of chorea, a nervous affection, and is called weaving. Medical treatment does no good. It may be checked to some extent, and, possibly, eventually cured, by tying him with two straps, one to each side of the stall, so that he cannot practice the vice. The vice is not responsible for the formation of the foot. This is a congenital and very undesirable conformation, as it predisposes to speedy cut, or knocking the other leg or knee with the foot. Nothing can be done for it, except careful shoeing, and it is often necessary to wear shin or knee boots, or both, in order to prevent injury. V.

AGALACTIA.

Breeding sows are fed as follows: After being bred, they run with boar for six weeks in the slaughter-house yard and are fed on offal and a little grain. Then they are kept in the manure cellar until within two weeks of farrowing, and are fed on cracked corn, oats and buttermilk. Then I put them in the pens and feed scalded middlings and buttermilk. One farrowed on April 1st, and had no milk. I fed the pigs on cow's milk. The sow never had any milk. On April 3rd, two more sows farrowed, and had no milk until the third day, and then very little. I put the pigs of the first sow on these, but the pigs are dying. Another sow farrowed on April 6th. She had no milk and she died the next day. I have five more to farrow. S. B.

Ans.—This condition is called "agalactia." It occasionally occurs without appreciable cause, but there must be a special cause in your case, as so many are affected. I think it is due to food and surroundings. Offal is not good food for breeding sows; neither is a manure cellar a good place for them. Allow your pregnant sows regular exercise, keep in perfectly clean, dry, and well-ventilated pens, feed on milk, table slops, chopped grain, shorts and raw roots, and I think you will have no trouble. When bred again, allow them to run on grass, and it is probable you will have at least reasonable success. For those that will soon farrow, little can be done, but a change of food and surroundings for those that will not farrow soon should prove valuable. V.

THE UNCLE KIND.

Small Boy—"I want a box of pills, please."
The Chemist—"What kind, my boy? Anti-billous?"
Small Boy—"No, it's uncle, sir."—London Sketch.

HORSE OWNERS! USE GOMBAULT'S CAUSTIC BALSAM.



A safe, speedy and positive cure. The safest, Best BLISTER ever used. Removes all bunches from horses. Impossible to produce scar or blemish. Send for circulars. Special advice free.

THE LAWRENCE-WILLIAMS CO., Toronto, Canada

The Burman HORSE CLIPPERS

as supplied to the Czar of Russia, the King of Denmark, the Duke of Connaught, Prince Christian, patronized by 60 masters of fox hounds, adopted by the War Office. The Burman Power Clippers are the accepted standard wherever horses are clipped.



Points: Ball Bearing; Long Shaft; Hook for Holding Head: Close-Clipping Plates.

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For forty-six years renowned as the best of the breed. Six large importations since February 1, 1910 (the last arrived October 12th), insure fine selection, as each animal was individually selected for size, bone quality and excellence. If you want choice stallions or mares, write for catalogue, illustrated from life.

W. S., J. B. & B. DUNHAM WAYNE, ILL.

3 Clydesdale Stallions

For sale, rising 3 years old. Large draft fellows, with the best of legs and feet. Will be sold at prices to defy competition. Apply:

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MESSRS. HICKMAN & SCRUBY

Court Lodge, Egerton, Kent, Eng.

Exporters of Pedigree Live Stock of all Descriptions.

From now on we shall be shipping large numbers of horses of all breeds, and buyers should write us for particulars before buying elsewhere. If you want imported stock and have not yet dealt with us, we advise you to order half year requirements from us, and obtain the other half any way you choose; we feel confident of the result, we shall do all your business in the future. Illustrated catalogues on application.

Percheron, Belgian, Shire and Hackney Stallions and Mares.

As fine a lot as there is in America; 3 to 4 years old; with lots of quality and good individuals; weighing or maturing 1,500 to 2,200 lbs. Prices on imported stallions, \$1,000 to \$1,200; American-bred stallions, \$600 to \$900. Importations to arrive February 18 and March 1.

Lew W. Cochran, Crawfordsville, Ind. Office 109 1/2 South Washington St.

FOR CLYDESDALE STALLION SALE

Royal Marquis (12063), sire Montcrieffe Marquis (6735) (9953), rising 3 years, smooth, with the best of quality. When matured will weigh a ton, or close to it. Price right.

ANDREW TURNBULL, Branchton, Ont.

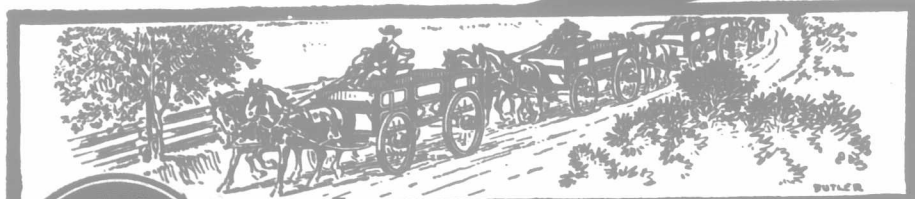
Clydesdales FOR SALE—Imp. and Canadian-bred stallions and mares, ranging in age from foals upwards. Seven imp. mares in foal. Keir Democrat (Imp.) (12187) (7018) at head of stud. Also a number of work horses. Long-distance 'phone. R. B. Pinkerton, Essex, Ont.

UNKO 2.11 1/2 TROTTER. Winning race record.

\$26.00 to insure. Owned by:

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If you want to be proud of your next wagon—choose one of these two in the I H C line—

Chatham or Petrolia

The loads they carry, the roads they traverse, and their wonderful durability make others wish they had bought a Chatham or Petrolia.

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Petrolia Wagons are constructed of first quality woodstock which is thoroughly seasoned by being air-dried. The ironing is of the very best. The inspection of each part is most rigid.

Be sure to call on the I H C local agent, get a pamphlet, and let him show you one of these wagons. If you prefer, write the International Harvester Company of America at nearest branch house for any information you want.

I H C Service Bureau

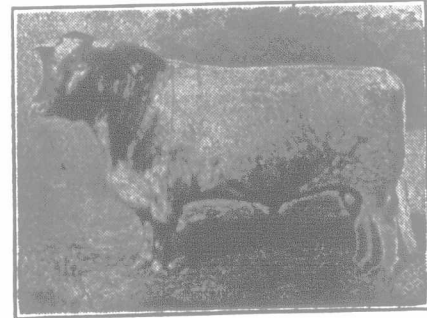
This Bureau is a clearing house of agricultural data. It aims to learn the best ways of doing things on the farm, and then distribute the information. Your individual experience may help others. Send your problems to the I H C Service Bureau.



EASTERN CANADIAN BRANCHES:—International Harvester Company of America at Hamilton, Ont.; London, Ont.; Montreal, Que.; Ottawa, Ont.; St. John, N. B.

International Harvester Company of America
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Elm Park Aberdeen-Angus The young bulls we have for sale are sired by: Magnificent, Imp., 2856, champion of Canada, 1910; Prince of Benton, Imp., 828, champion Toronto and Winnipeg, 1903; Lord Val. 2nd 868, champion Calgary, Halifax, Sherbrooke Dominion Exhibitions. **Jas. Bowman, Elm Park, Guelph, Ont.** Phone 708.



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100 HEAD IN HERD.

Headed by the imported bulls, Bandsman and Village Duke. For sale: 7 choice bulls of serviceable age; 3 are from imported sire and dam; 2 are thick, heavy-boned yearlings, suitable for farmers' use to sire growthy, easy-feeding steers; 1 Nonpareil and 1 Missie, both by Bandsman, are especially suitable for herd headers. 25 young cows and heifers in calf; among these are some good ones for foundation purposes.

Farm 1/2 Mile from Burlington Jct. Sta.
Long-distance phone.

Mitchell Bros., Burlington, Ont.

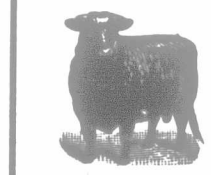
SHORTHORNS AND OLYDESDALES

THE FOLLOWING CHOICE-BRED YOUNG BULLS ARE FOR SALE:

Name.	Color.	Age.	Sire.	Dam.
1 Broadhooks Ruler	=81058=	White	April 27, 1910	Bullrush (imp.)
2 Ramsden Recuit	=77495=	Red	Nov. 9, 1909	Bullrush (imp.)
3 Royal Bud	=81056=	Red roan	Jan. 4, 1910	Royal Winner (imp.)
4 Royal Emblem	=81060=	Red	Jan. 26, 1910	Royal Winner (imp.)
5 Royalty	=81059=	Red	Apr. 22, 1910	Royal Winner (imp.)

Heifers and cows of various ages and choicest breeding. Also Clydesdale mares and fillies. Burlington Jct. Sta., G.T.R. Long-distance phone.

W. G. Pettit & Sons, Freeman, Ontario.



H. CARGILL & SON

have to offer at the present moment an exceptionally good lot of young bulls, which combine all the requisites necessary for the making of superior stock sires, viz.: Quality, Size, Conformation and Breeding. If interested, come and make your selection early. Catalogue on application.

John Clancy, Manager, Cargill, Ontario.

Robert Miller, Stouffville, Ont. Can supply young bulls and heifers of the very choicest breeding, and of a very high class, at prices that you can afford to pay. The young bulls are by one of the greatest sires of Whitehall Sultan. They are good colors, and will make show bulls. I also have two good imported bulls at moderate prices and of choice breeding, and some cows and heifers in calf to Superb Sultan; the calves should be worth all the cows will cost. Some beautiful young imported Welsh Ponies still to spare. It will pay you to write, stating what you want. Glad to answer inquiries or show my stock at any time. Business established 74 years.

QUESTIONS AND ANSWERS.

Miscellaneous.

SEED PEAS.

Please tell me where I can get Crown peas; say one bushel. J. D.

Ans.—Why not try the seedsmen advertising in "The Farmer's Advocate"? Farmers having Crown peas for sale should advertise them in our Wants and For Sale column.

TRANSPLANTING WHITE SPRUCE.

How and when should I transplant the white spruce? There are plenty of all sizes in the neighboring swamps. I intend to set out some this spring.

F. B.

Ans.—Dig up with as many roots as possible. Be careful to keep roots from drying while being moved, covering them with an old cloth to shelter from the sun's rays. Plant about the first of May. Do not set a tree in the hole and throw earth on the roots and trample it down. Keep roots separate and in natural position by working fine soil carefully among them. Leave no air spaces, and make all firm and solid.

PLANTING CEDAR HEDGE.

What time of the year is best for planting a cedar hedge? About what height should trees be? How deep should trees be planted, and should they be right close together? A SUBSCRIBER.

Ans.—A very good time of year to plant a cedar hedge is right after spring grain has been sown, say about the first of May. Rather large trees, from two to three feet high, and cut down to eighteen inches, are more likely to grow than smaller ones. Trees should be set an inch or two lower than they grew formerly. Correct distance apart for hedge purposes, from 1 to 1 1/2 feet. The ground on either side of hedge should be kept hoed, or mulched, for the first year at least.

MUSHROOM-GROWING—SAP VINEGAR—LEOPARD LILY SICKLY.

1. Will mushrooms grow with success in an outdoor cellar in sandy soil, and properly heated in winter?
2. Will you explain how maple-sap vinegar is made?

3. What treatment for a (commonly called) Leopard Lily? It was once very beautiful, with large, glossy leaves, but for some time past the leaves are very small, the stems of same spindly, and whole plant looks "sick." Have tried re-potting, and have divided the roots, with no results. Set pot always in pan of water in summer. Would this be the cause? C. S. N.

Ans.—1. Decaying vegetable matter, a uniform and rather low temperature, and a uniform supply of moisture, are the general requisites for mushroom culture. An outdoor cellar would be quite an ideal place. Temperature in winter should not go below 55 degrees, or rise above 65 degrees. Look up and read article on "Mushrooms" in "The Farmer's Advocate" of January 26th, 1911.

2. Answered to another correspondent.

3. The "Leopard Lily" is not really a lily, and your treatment of the plant, setting pot in a pan of water in summer, is, in all likelihood, the cause of the plant looking "sick."

Veterinary.

QUINSEY.

Pigs about four weeks old have difficulty in breathing. They pant. Some have died.

M. P.

Ans.—This is quinsy, and treatment is often unsuccessful. Rub their throats well with mustard, mixed with oil of turpentine, and wrap well with flannel cloths. Scarcify the tonsils, and swab well frequently with equal parts oil of turpentine and sweet oil. In order to scarcify or swab the tonsils, their mouths must be held open by inserting a small elevator or other article. V.

I Cured My Rupture

I Will Show You How To Cure Yours FREE!

I was helpless and bed-ridden for years from a double rupture. No truss could hold. Doctors said I would die if not operated on. I fooled them all and cured myself by a simple discovery. I will send the cure free by mail if you write for it. It cured me and has since cured thousands. It will cure you.

Fill out the coupon below and mail it to me today

Free Rupture-Cure Coupon

CAPT. W. A. COLLINGS,
Box 653 Watertown, N. Y.

Dear Sir:—Please send me free of all cost your New Discovery for the Cure of Rupture

Name.....

Address.....

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ABERDEEN - ANGUS

Will sell both sexes; fair prices. Come and see them before buying. **WALTER HALL,** Drumbo station. Washington, Ont.

Angus Bulls for Sale Pure-bred Aberdeen-Angus bulls, one year old and under. We will exchange one for one of the same breed. Our prices are reasonable. **Jas. Kean & Son, Orillia, Ont.**

Royal Clare = 66772 = FOR SALE

This bull is 5 years old; a roan; will weigh a ton, and is very fresh and active. Cannot use him any longer on account of his heifers. Write, or call on.

WM. SMITH, COLUMBUS, ONTARIO

Shorthorns, Cotswolds, Berkshires.

In Shorthorns: 40 females, comprising 9 calves, 6 yearlings, 6 two-year-olds, and the balance cows from 3 years up. In Cotswolds, a few breeding ewes. No Berkshires to offer at present.

CHAS. E. BONNYCASTLE, Station and P. O., Campbellford, Ont.

Maple Grange Shorthorns

Royal Bruce, imp., a Bruce Mayflower, is the sire of all my young things. Nonpareils, Clarets, Myrtles and Lavinias. Heifers up to 2 years of age, of showing type. Several young bulls, thick, even and mellow.

R. J. DOYLE, Owen Sound, Ont.

JOHN GARDHOUSE & SONS

Still have for sale a right good lot of young Shorthorns; a few No. 1 Shire stallions and fillies just imported in August; also a choice lot of ram lambs. Weston Station, G. T. R. and C. P. R. Long-distance phone.

HIGHFIELD, ONTARIO.

OAKLANEFARM

Clydesdales, Shorthorns and Cotswolds

Heifers and cows with calf or calves at foot, also one two-year-old Clyde stallion—a neat one.

GOODFELLOW BROS. MACVILLE P. O., ONT. Bolton Station, C. P. R.; Caledon East, G. T. R. Local and Long-distance telephone.

SHORTHORNS—Imported stock bull for sale. Having an extra choice lot of yearling heifers offer him to breed next winter. I offer my extra choice-bred Sittytton Butterfly (imp.) bull, Benachie = 69954 =, just turned 4 years old, sire Scottish Farmer (53365), dam Beatrice 22nd.

GEO. D. FLETCHER, BINKHAM P. O., Erin Sta., C. P. R.

4 Shorthorn Bulls

FOR SALE. 3 red and one roan; age from 12 to 16 months; sired by Imp. Lord Gordon (99434) = 70135 =, bred by A. Watson, Elgin, Scotland. **J. & W. RUSSELL,** Richmond Hill, Ontario.

CLOVER BELL SHORTHORNS—Some choice females at tempting prices. Red and roan, of milking strain. **L. A. Wakely, Bolton, Ont.** Bolton Sta., C. P. R., one-half mile from barns. Phone.

CEDARDALE SHORTHORNS

—Imported and home-bred. Imp. Lord Fyvie heads the herd. For sale are choice young bulls, and a few 1 and 2 yr. old heifers of superior breeding and type. **Dr. T. S. Sproule, M. P., Markdale, Ont.**

Shorthorns and Oxford Down Sheep

Trout Creek Wonder at head of herd. Young bulls and heifers of richest Scotch breeding. Phone connection.

Duncan Brown & Sons, Iona, Ontario.

3 PURE-BRED SHORTHORN BULLS for sale—2 red and 1 roan—age 11 and 14 months. Sired by Gay Marcus = 73277 =, 4 1/2 miles south of Alton station. **McALPINE BROS.,** Lambton County. **AUGHMIM P. O., ONTARIO**

APRIL 27, 1911

A BAD COLD Developed Into BRONCHITIS.

Neglected Bronchitis is very often the direct cause of Consumption, and on the first symptom appearing Dr. Wood's Norway Pine Syrup should be used and the Bronchitis cured.

The symptoms are, tightness across the chest, sharp pains and a difficulty in breathing, a secretion of thick phlegm, at first white, and later of a greenish or yellowish color, coming from the bronchial tubes when coughing, especially the first thing in the morning.

Mrs. Dan. J. McCormack, Cleveland, N.S., writes: "My little boy two years old caught a bad cold which developed into Bronchitis. He was so choked up he could hardly breathe. Reading about your wonderful medicine, Dr. Wood's Norway Pine Syrup, I decided to try a bottle and with such good result I got another which completely cured him, without having a doctor. I cannot say too much in its praise; I would not be without it in the house as I consider it a sure cure for Colds and Bronchitis."

The price of "Dr. Wood's" Norway Pine Syrup is 25c. It is put up in a yellow wrapper. Three pine trees is the trade mark. Be sure and accept no substitute for Dr. Wood's.

Manufactured only by The T. Milburn Co., Limited, Toronto, Ont.

10 Scotch Shorthorn Bulls 10

FROM 10 TO 14 MONTHS OLD

The Princess Royal, Secret, Bessie, Village Maid families are represented in lot. First-class herd headers and farmers' bulls for getting market-topping steers. Prices very reasonable.

JOHN MILLER, BROUGHAM, ONT.
Claremont Station, C. P. R., three miles.

Woodholme Shorthorns are of the richest Scotch breeding, modern in type and quality. For sale: One- and two-year-old heifers, several young bulls, thick-fleshed, low-down and mellow.

G. M. FORSYTH, Claremont, Ont.
100 yards from station. Phone connection.

MAPLE LODGE STOCK FARM

1854-1911

Two strictly first-class young Shorthorn bulls for sale now. Come and see them, or write.

A. W. SMITH, Maple Lodge, Ont.
Lucan Crossing, G. T. R., one mile.

HIGH-CLASS SHORTHORNS

I have on hand young bulls and heifers of high-class show type, pure Scotch and Scotch-topped, sired by that sire of champions, Mildred's Royal. If you want a show bull or heifer, write me.

GEO. GIER, Grand Valley P.O. and station, also Waldemar station.

SPRING VALLEY SHORTHORNS

If you want a good Shorthorn bull, we have them, Canadian-bred and imported. Females all ages. Also a few good YORKSHIRES—boars and sows. Prices right.

Phone connection, Kyle Bros., Ayr, Ont.

Shorthorns

Present offering: 12 bulls from 5 to 20 months old; 40 cows and heifers to choose from. Nearly all from imported bulls. At prices to suit everyone. Come and see them, or write: Robert Nichol & Sons, Hagersville, Ont.

Oakland Shorthorns for Sale

Here is a herd of breeders, feeders and milkers. About 50 to select from. 7 bulls from 8 months up to 2 yrs. Prices from \$30 to \$130. Scotch Grey 72692 at head of herd. G. T. R.

Jno. Elder & Son, Hensall, Ont.

SHORTHORNS, Clydesdales and Oxford Downs.

Seven red and light roan bulls, 7 to 18 months, by Blossoms Joy = 73741; some with dams. Heifers 1 and 2 yrs. Clydesdales, both sexes. Flock of Oxford Downs. All at low prices next month. Phone connection. McFarlane & Ford, Dutton Ont.

Scotch Shorthorns FOR SALE

Three choice young Scotch bulls fit for service; two roans and one red. Bred from imp. stock, also females of all ages. Bell phone.

L. C. Pettit, Freeman P. O., Ontario

QUESTIONS AND ANSWERS. Miscellaneous.

LUMPS IN TEATS.

An old cow (2-year milker) won't let down her milk from 3 teats. They are not swelled at all, but there are lumps on them. I would consider it a very great favor if you would let me know what to do in such a case?

W. N. Mc.

Ans.—Doubtless the lumps in the teats are what obstruct the milk flow. Such lumps are sometimes removed by a surgical operation. This operation is not by any means always successful. Even the case of a young and valuable cow affected with such teat obstructions is considered so serious by the best advisers that they usually recommend fitting her for the block rather than attempting remedial measures, and much more emphatically would such advice be given when the cow is old and her period of usefulness nearly past.

STORING A STOVE.

An agent whom we knew came here with a stove last fall, about the 1st of November. As the roads were bad, he asked permission to leave the stove here for the present till he would call for it. He wanted to sell me the stove, but I told him I would not buy. We set the stove in a building away from the house. It was all nailed up, in a crate, and it is the same way yet. I have notified one of their agents twice to take the stove away. Can they compel me to keep the stove, as we do not want it? He called with the stove about dark, and had about thirty miles to go that night after that, so we let him leave the stove, as he said he would come after it soon. SUBSCRIBER.

Ontario.

Ans.—No; and we think it advisable that you should notify the owners of the stove, in writing, insisting upon its immediate removal, and that meanwhile you will charge for storage.

SHEEP SHED.

Would like you to give plan of the most approved sheep shed, and how to build so as to accommodate about thirty-five sheep, and also hold feed for the same. Would you advise stone wall?

Ans.—You will need a building at least 20x32 feet, with posts sufficiently high to store the hay necessary for the number of sheep. An arched roof, similar to that shown in our April 20th issue, page 696, will be found cheap and suitable. Build, if practicable, on high, dry ground, with yards facing the south, and wide doors, to be left open except in stormy weather. The inside space should be divided into at least two parts; one for the ewes, the other for the lambs in their first winter. We would not advise stone walls higher than two feet above the ground. Single boards and battens keep the house warm enough for sheep if drafts are avoided.

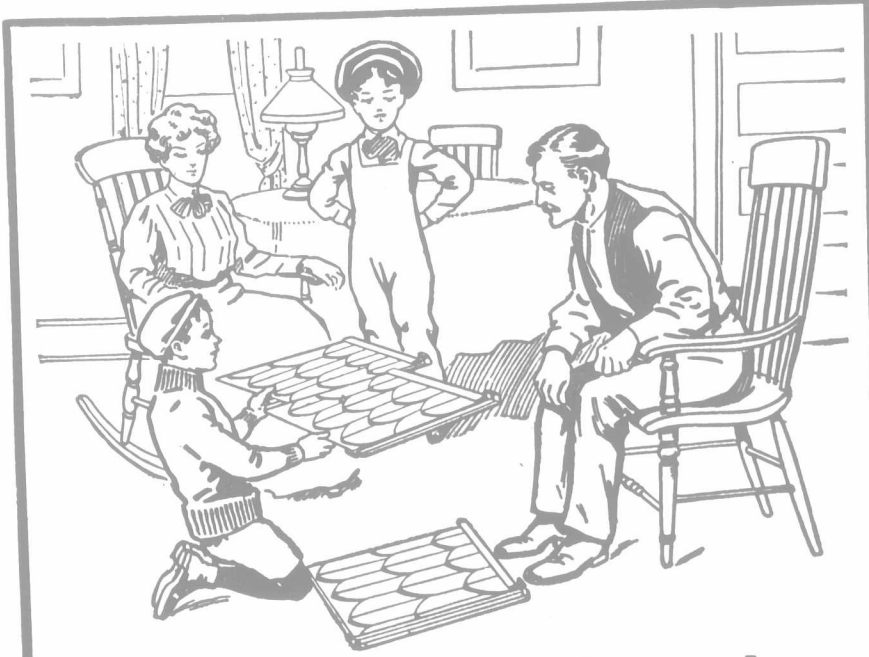
COST OF CHANGING BUILDINGS.

1. Have two frame barns. No. 1, 30x54x14 feet; No. 2, 40x50x14 feet; built on a sidehill. What would it cost to dig an underground stable to hold 30 head of stock and move these two barns over it, put hip roofs on them, and make them into one?

2. Where could I get books on: (a) The feeding and breeding of registered Holsteins; (b) How to feed pigs to make them go 200 lbs. as soon as possible? FARMER'S SON.

Ans.—1. Consult local carpenters or barn-framers and other contractors. By the time you reach conclusions as to cost, you will be able to remember it without reference to paper. You will be able to perceive, we are certain, that no estimate of cost of such work, upon which any dependence could be placed, could be given without knowing character of soil, distance that buildings are to be moved, condition of buildings, rate of wages prevailing, distance from gravel pit, etc., etc.

2. "Holstein Cattle," by F. L. Houghton, Brattleboro, Vermont, through this office. We have never seen a book dealing expressly with the problem of making pigs go 200 pounds as soon as possible. "Columbia's Swine in America," and "Pay's Swine Husbandry," discuss feeding, of course.



Consult your wife about the new barn.

It's your duty, Mr. Reader. She has helped you make a new barn possible. Get her opinion of "Galt" Steel Shingles. She has probably read about them and her opinion is worth something to you. Find out for yourself what "Galt" Shingles are made of—how they are made—how they lock—how they make a storm, fire-and-lightning-proof and permanent roof—how they save you money compared with any other building material you can use. Or if your present barn needs a new roof make it a first class barn by putting a "Galt" Roof on it. For old and new barns, wood shingles are out-of-date, use

"Galt" Steel Shingles.

Tear out this advertisement write your name and address on the line at the bottom and enclose it in an envelope. We'll know you want a free copy of our book "Roofing Economy" and will send it by return mail.

Name _____ Address _____
THE GALT ART METAL CO., Limited, GALT, ONT.
Watch for the advertisements with The Kids from Galt.

This Feed Costs Nothing if you count the results it gives. Livingston's Oil Cake is just what cows need. It tastes good—is easily digested—keeps stock in prime condition all the year round—actually increases the percentage of Butter-fat by 16% over Pasture Grass. The richer the cream, the more money you make. Livingston's is the feed that pays for itself.

Livingston's Dairy Oil Cake

Write for free sample and prices: THE DOMINION LINSEED OIL CO., LIMITED, BADEN, ONT.

Elmhurst Scotch Shorthorns and Large English Berkshires
FOR SALE: Two young bulls, red and roan, fashionably bred with quality. Young sows bred for April litters.
H. M. VANDERLIP, Cainsville, Ont. Langford Station.
B. H. Radial in sight of farm. Bell phone

Springhurst Shorthorns and Clydesdales
I am now offering a number of heifers from 10 months to 3 years of age. Anyone looking for show material should see this lot. They are strictly high-class, and bred on show lines. Also several Clydesdale fillies, imp. sires and dams, from foals 2 years of age off. Harry Smith, Hay, Ont., Exeter Sta.

Shire Stallions and Mares, Shorthorn Cattle (both sexes); also Hampshire Swine. Prices reasonable.
Porter Bros., Appleby, Ont., Burlington Sta. Phone.

Scotch Shorthorn Females for Sale I am offering, at very reasonable prices, females from one year to five years of age. The youngsters are by my grand old stock bull, Scottish Hero (imp.) = 55042 = (90065), and the older ones have calves at foot by him, or are well gone in calf to him. Their breeding is unexcelled, and there are show animals amongst them. A. EDWARD MEYER, Box 378, GUELPH, ONT.

SALEM STOCK FARM One of Canada's oldest herds, with a show-yard reputation excelled by none. If you want something high-class we can generally fill the order.
J. A. WATT, SALEM, ONTARIO.
ELORA STATION, G. T. R. AND C. P. R. LONG-DISTANCE PHONE.

Irvine Side Shorthorns 2 extra good young bulls ready for service; both from an imp. bull, and one of them from an imp. cow. Also 1 good two-year-old registered Clydesdale mare from imp. sire, and out of imp. mare.
J. WATT & SON, SALEM, ONTARIO.

Brampton Jerseys Bulls fit for service are getting scarce. Just a few left. Yearling heifers in calf are in great demand; 6 for sale; 6 now being bred. Brampton Stockwell the sire. A few good cows and some calves for sale. Production and quality.
B. H. BULL & SON, BRAMPTON, ONT.

Only Tools You Need

Simply a carpenter's claw-hammer and tinsmith's shears. Use galvanized wire nails that cost you nine cents a pound. No special skill required. Shingles lock together on all sides, making one solid seamless sheet of tough steel, without crevice or crack anywhere.

Makes the Only Roof Your Building Will Need in 100 Years

SURELY you can place the utmost faith in Oshawa Steel Shingles when we give you a written, legally-binding guarantee that an Oshawa-shingled roof will be a good roof for twenty-five years. I show you this guarantee in my book. Get my book please and read all about it. See how thoroughly it protects you.

G. H. Pedlar

Here's the ONLY Right Roof for You

REFER to my Oshawa Steel Shingles. Reckon it all up and see if you don't agree with me. A roof that is one big seamless sheet of 28 gauge steel, smoothly and thickly galvanized by the Pedlar process of rust-proofing. A roof that cannot rust, will not gather moisture on underside, stay a good roof for a hundred years at a cost of less than five cents a year. A roof that makes your building safe against both fire and lightning. A roof that makes your building warmer in winter, cooler in summer. A roof that costs no more than common wood shingles to put on, and much less to keep on. A roof that needs no painting, no patching, no tinkering or repairs for at least twenty-five years—or you get a new roof free. The only roof that is guaranteed in writing. Certainly a roof like this is the only right roof for you. You cannot be sure of as much down-right roof value from any other kind of roof you can buy. The question is: Can you afford to risk your money in any other kind of roof.

The ONLY Roof that is Guaranteed in Writing

I claim a good deal for an Oshawa-shingled roof. Almost too much to be true, some folks think. So do makers of other roofs. But note this difference. I give you a written guarantee that's good for a new roof any time within twenty-five years if any Oshawa-shingled roof fails to make good everything I promise. That means that its cost when you put it on is the only cost for the next twenty-five years. Will the "other fellow" give you such a guarantee? I don't know any one who will. They want you to take the risk. They talk very confidently—and promise, yes indeed. But can you get their promises down in writing and signed—like mine are. That's the only way you can be positively sure of a roof that will be

Good for 25 years or an Entirely New Roof Free

My guarantee, remember, is a written one, in proper legal form, and is backed by 50 years of honorable dealing, and over \$325,000 of invested capital, the biggest business of its kind in the British Empire. It is your roof-insurance for twenty-five years. When you consider that no other roofing is guaranteed at all, even though you pay as much for it as you pay for my Oshawa Steel Shingles, there's no doubt about which roof you should buy.

PEDLARIZE All Your Buildings—Inside and Out

BY "Pedlarizing" I mean doing for the whole building what Oshawa Steel Shingles do for the roof. I make other kinds of sheet metal building materials—for ceilings, side walls, outside—that make your whole building more fire-proof, more sanitary, more beautiful, more substantial. You should know about them. May I send you a booklet and pictures that tell the whole story? It's free. Just ask me to tell you about "Pedlarizing."

First Cost no More than Roofs You Think Cheap

Of course you don't want to pay any more than you have to for a good roof. But for the amount you have to pay you ought to get the roof that will cost the least to keep on. And Oshawa Steel Shingles make the only roof you can be sure will end your roof expense once you get it on. My written guarantee settles that. Figure it out any way you like. You'll find an Oshawa-shingled roof as cheap to begin with, and far cheaper in the long run, than any other roof you can buy.

Best Protection against Both Fire and Lightning

This fact alone is reason enough for putting my Oshawa Shingles on the next building you roof. Lightning causes over 40% of all fire-damage on farms. Destroys about 7,000 farm buildings each year on this continent. In one year killed 623 human beings and 4,500 head of cattle—most of them housed in wood-shingled buildings. My Oshawa Steel Shingles would save all this terrible loss. Because they make a lightning-proof roof. They are better protection than any number of lightning rods—better than the best and cheapest lightning insurance policy. Best fire-protection, too. The saving in fire-insurance premiums alone pays the whole cost of an Oshawa-shingled roof in a very little while. Your insurance agent will tell you.

Send for My Free Book "Roofing Right"

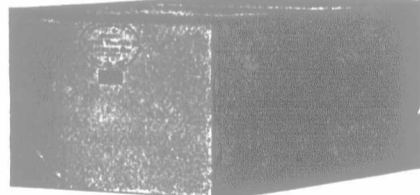
Then you'll have all the facts about this weather-proof, rust-proof, rot-proof, fire-proof, lightning-proof roof, which needs no painting or patching for the biggest part of your lifetime. By reading my book you may save yourself considerable money and a lot of bother. It is free. Do write for it—right away.

Write to Address Nearest You.

Ask for "Roofing Right" Booklet No. 16

The PEDLAR PEOPLE of Oshawa Established 1861

- | | | | | | | | |
|----------------------------------|--------------------------------------|-------------------------------|--------------------------------|---|-----------------------------|------------------------------|----------------------------|
| HALIFAX
16 Prince St. | ST. JOHN
42-46 Prince William St. | QUEBEC
127 Rue de Port | MONTREAL
321-3 Craig St. W. | OTTAWA
423 Sumner St. | TORONTO
111-113 Bay St. | LONDON
86 King St. W. | CHATHAM
200 King St. W. |
| PORT ARTHUR
45 Cumberland St. | WINNIPEG
76 Lombard St. | REGINA
1901 Railway St. S. | CALGARY
Room 7, Crown Block | EDMONTON
633 Fifth Ave., North of Jasper | VANCOUVER
319 Pender St. | VICTORIA
434 Kingston St. | |
- ADDRESS OUR NEAREST WAREHOUSE WE WANT AGENTS IN SOME SECTIONS. WRITE FOR DETAILS. MENTION THIS PAPER.



Instal Your Own Waterworks

A STEEL TANK IN YOUR ATTIC with water pumped to it will give you a complete waterworks system for your house. A similar tank in your barn, with our steel stable trough installed, will solve the problem of watering your stock, insuring a constant supply of pure, clear water at the right temperature, right where it is needed. Write for our catalogue of steel tanks and troughs. We build any kind of a steel tank or box to order. Agents wanted. Steel tanks do not rust. They are built to last.

STEEL TANK CO., TWEED, ONT.

RINGING IN EARS DEAFNESS
INSTANTLY RELIEVED BY THE OLD DR. MARSHALL'S CATARRH SNUFF
25¢ AT ALL DRUG STORES OR SENT PREPAID BY C. M. KEITH, 107 CLEVELAND OHIO

BUSINESS-BRED AYRSHIRES

My herd of Ayrshires have for generations been bred for milk production. They are nearly all in the R.O.P. My present offering is several young bulls most richly bred. **James Beag, R. R. No. 1, St. Thomas, Ont.** Bell phone.

Burnside Ayrshires America's champion herd; over 100 head to select from; practically all imported and bred from imp. sire and dam; 20 with O. R. O. P. records; 25 daughters of R. O. P. dams. We won the late dairy test at Ottawa over all breeds. We can supply car lots.
R. R. NESS, HOWICK, QUE.

SPRINGBANK AYRSHIRES The world's leading herd of Record-of-Performance Ayrshires. Contains more champion milk- and butter-producers than any other herd. Also big cattle, big udders and big teats a specialty. A few bull calves, true to color and type, from R. O. P. dams, for sale at reasonable prices. **A. S. TURNER & SON, Ryckman's Corners, Ont.** Three miles south of Hamilton. Visitors welcome. Trains met by appointment.

CHERRYBANK AYRSHIRES! Imported and Canadian bred, with R. O. P. official records, headed by the renowned champion, Imp. Netherhall Milkman. Richly-bred females and young bulls for sale.
P. D. McArthur, North Georgetown, Que.

CRAIGALEA AYRSHIRES! Our record: Every cow and heifer entered in Record-of-Performance, and retained in herd until test was completed, has qualified. Heifers and young bulls for sale of show-ring form. **H. C. HAMIL, BOX GROVE P. O., ONT.** Markham, G. T. R.; Locust Hill, C. P. R. Bell phone connection from Markham.

STONEHOUSE Ayrshires The champion Canadian herd for 1910 at the leading shows. 32 head imp., 56 herd to select from. R.O.P. official records, the best and richest bred types of the breed. Anything for sale. Young bulls, females all ages.
HECTOR GORDON, HOWICK, QUE.

Ayrshires Bull calves, from 4 months to 9 months, from imported sire and Record of Performance dams. Records 50 to 63 pounds per day.
N. Dymont, R. R. No. 2, Hamilton, Ont.

HILLCREST AYRSHIRES.—Bred for production and large teats. Record of Performance work a specialty. Fifty head to select from. Prices right.
FRANK HARRIS, Mount Elgin, Ont.

Ayrshires and Yorkshires Our Ayrshire herd is in fine form. We can fill orders for a number of bulls fit for service, of good dairy breeding, or imported stock for 1911. Females any age. Young calves either sex. Young heifers fit for service. Young pigs ready to ship. Write for prices and particulars. Long-distance phone.
ALEX. HUME & CO., Menie P. O., Ont.

HILLVIEW AYRSHIRES.—Imp. Hobland Hero at head of herd. Imp. and Canadian-bred females. Young bulls true to type and bred in the purple, for sale, also a few heifers.
R. M. Howden, St. Louis Station, Que.

Ayrshires—Two bulls rising two, two rising one year; also calves and high-grade heifers in calf. All stock good dairy breeding.
JOHN A. MORRISON, Mt. Elgin, Ontario. When writing Please Mention this Paper.

Stockwood Ayrshires Imported and Canadian-bred. High producers and high testers. Females of all ages for sale; also several young bulls, from 8 to 14 months old. Imp. sires and out of imp. dams. Right good ones, and bred from winners.
D. M. Watt, St. Louis Station, Quebec.

QUESTIONS AND ANSWERS. Miscellaneous.

STALLION SLOW IN SERVING.

I have an imported Clydesdale stallion, 5 years old, a sure foal-getter, but he is very slow in serving mares. Can you suggest anything that will make him spruce up? Last year I had to take him off the road.
J. H. F.

Ans.—Medicines do no good. Feed moderately well on good hay and oats, with a carrot or two daily, and a feed of bran with a little linseed meal twice weekly. As soon as the grass grows, allow him to have some every day. Give him regular exercise, of not less than 8 to 10 miles daily, and do not require him to serve more than one mare on any day.

BUTTER CONTENT AND PRICE OF TESTED CREAM.

1. How many pounds of butter are in a hundred pounds of cream testing 32 per cent.?

2. With cream testing 32 per cent., what would a gallon be worth, sold at 32 cents per pound of butter-fat, also at 40 cents?
C. S.

Ans.—1. 100 lbs. cream, 32% fat, adding $\frac{1}{2}$ for overrun = $32+5\frac{1}{2}=37\frac{1}{2}$ lbs. butter.

2. A gallon of cream testing 26% fat should weigh about 10.01 lbs. For practical purposes, 32% cream may be said to weigh 10 lbs. per gallon. 32% of 10 lbs. = 3.2 lbs. 3.2 lbs. x 32 cents, the price per pound = \$1.02 2/5 per gallon.

REGISTRATION OF CHESTER WHITES.

I have now on hand some young pigs from pure-bred registered Ohio Improved Chester White sire and dam, and as I wish to have them registered, I would like to know, through the columns of your valuable paper, to whom I shall apply for the desired forms and registration papers, and what would be the probable cost of same.
P. E. I. READER.

Ans.—If your Chester White hogs were bred and farrowed in Canada, both the sire and dam will have to be recorded in the Dominion Swine-breeders' Record; if bred in the United States and farrowed in Canada, the dam will have to be Canadian recorded. In either case American registration papers must be forwarded to Ottawa, accompanied by the regular Canadian application form filled in. To get the exact particulars, which may be required in your case, you had better write to the "Accountant, National Live-stock Records, Ottawa."

LIME FOR LAND.

What value is slaked lime to land?
J. F. D.

Ans.—Lime itself is not usually valued as a direct fertilizer. Its action is indirect. What it does is more, perhaps, in the nature of stimulating the soil than of furnishing fertilizing materials. Lime is supposed to hasten the decomposition of organic matter in the soil, and to liberate potash from some of the insoluble forms of combination, thus rendering it available to the plant. There are two classes of soils on which lime has a very marked beneficial effect. It makes swampy soil sweet and fertile and fit for the growth of plants, by acting chemically upon the vegetable acids, whose presence induces the sourness which is characteristic of such soils. It is useful, also, on heavy clay land that is difficult to manage, that is heavy to work and bakes readily. It relieves the tenacity of such clays by a physical action through which the soil granules are caused to coagulate together into grains of larger dimensions, forming a soil that is more readily cultivated, more easily drained, and less likely to bake if worked when wet.

On some soils, sorrel is found growing thickly. That is an indication that the soil is sour, and in need of lime. In the ordinary farm soils of Ontario, however, sufficient quantities of lime are contained for present and future needs, and hence it would be an economic mistake to apply it for any purpose whatever.

Lime slaked is in the right condition for application to land. The equivalent of 50 bushels of fresh-burned lime is as much as should be spread on an acre in any one year. Little and often is a good rule in regard to applying lime to land.

QUESTIONS AND ANSWERS. Miscellaneous.

SPRAY FOR SAN JOSE SCALE.

Which would be the better to use for killing San Jose scale, Scalecide, or lime-and-sulphur mixture? J. D.
Ans.—We would most emphatically prefer the lime-sulphur.

STRAWBERRIES—VINE FOR WALL.

1. I intend setting out about three hundred strawberry plants. What varieties would you recommend, and what size of a plot would they need for easiest culture?
2. Have a large, brick wall, facing the south-west, and no protection near. Would like to have this bareness broken with something. Have tried Virginia Creeper, but it wouldn't grow; then planted Boston Ivy. It doesn't seem thrifty; grows very little in summer, and gets killed back in winter. How could I care for it to make it do better? Or is there any other creeper you would recommend as more suitable for the location? W. J.
Perth Co., Ont.

Ans.—1. The three best varieties of strawberries with perfect blossoms, for commercial purposes, are, according to Horticulturist W. T. Macoun, of the Central Experimental Farm, Ottawa, Beder Wood, Splendid and Williams. For domestic use, the best three are Excelsior, Splendid and Senator Dunlap. In the vicinity of London, the one berry which outnumbers all the others grown, is the Williams.

The 300 plants, set 18 inches apart in row, and in 5 rows, would fill a plot 15 or 16 feet wide by 90 feet in length, a suitable shape for being worked with a horse.

2. Would advise trying Virginia Creeper again. It is, by many, considered prettier than Boston Ivy, and is perfectly hardy, while Boston Ivy is only half-hardy. Another most beautiful vine, and fairly hardy, is Japanese Honeysuckle. It is a rapid grower, and bears an abundance of lovely, fragrant flowers. Can be got from nurserymen. Is practically an evergreen, as the leaves, though brown now, are on it still.

GRUB IN THE HEAD.

For the last few days I noticed that some of my sheep have been getting weak and losing their lambs before time. In the course of treating with turpentine, I find warbles in the nose. The warbles are about 1/4 of an inch long.

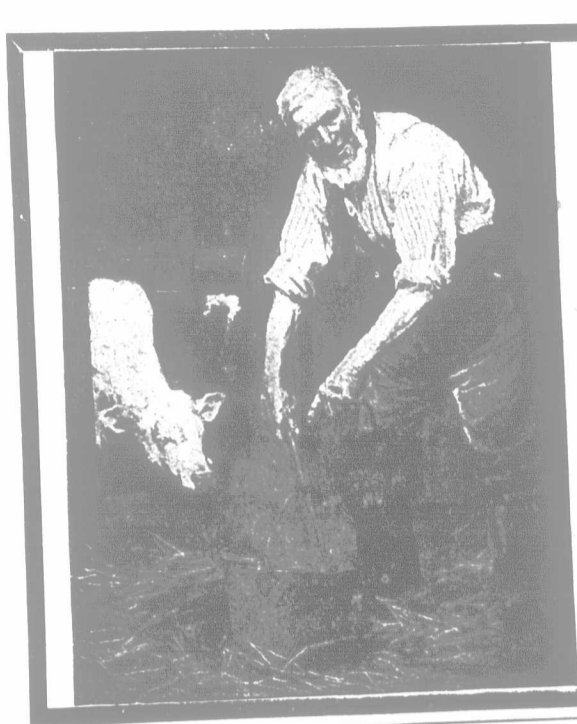
1. Would the warbles be the cause of their losing the lambs?
2. Would there be more than one warble in each sheep's nose?
3. Could you suggest a cure?
Huron Co. G. A. C.

Ans.—1. The larvae frequently found in the nostrils of sheep are not commonly called warbles, but grub in the head. Many sheep are infested with grubs that show no sign of illness. A sheep well fed and in vigorous health may resist the injury which they cause, and in due course the grub will come out of its own accord, and change into the sheep gadfly, which is the name of the parent insect. Quite probably the grubs were causing the trouble in your flock.

2. There may be one or more grubs in each nostril.

3. "As a rule," says one authority, "treatment after the sheep have become run down in health and strength is of no avail." One of the best preventive measures during fly time is to bore holes 6 inches deep with a 2 1/2-inch auger, in a squared log. Keep these partly filled with salt, and have the margins smeared with pine tar; or, better still, pine tar mixed with an equal quantity of lard and oil of tar. The sheep then daub their noses with the tar mixture each time they lick at the salt, and the gadfly is repelled by the odor.

Even after the grubs have caused emaciation and distress it is claimed by some that certain methods of treatment will cure. Two of these we give, leaving our readers to judge of their worth: 1st. Place a piece of plank on the sheep's head and hit a sharp blow, and the grub will cause the grubs to drop out. 2nd. Induce coughing and sneezing, and dislodgment of the grubs by forcing turpentine into the nostrils, or by blowing the nostrils with tobacco juice, thus causing the sheep to inhale the burning sulphur.



CALF MEAL

BIBBY'S CREAM EQUIVALENT

Young Calves develop and grow surprisingly well when fed "Cream Equivalent" either with or without separated milk. It is not a drug or "FAKE" meal. Made by one of the most honorable firms in England. Has the largest sale of any Calf Meal in the World. Canadian Government report shows it to contain the highest percentage of nutritive value. TRY A BAG, 50 lbs. \$2.25. Can be fed with either Hot or Cold water.

DEALERS EVERYWHERE SELL BIBBY'S CREAM EQUIVALENT

WM. RENNIE CO. LIMITED TORONTO CANADIAN REPRESENTATIVES

LARGE CLEARING AUCTION SALE!

Holstein-Friesian Cattle, Clydesdale Horses AND OTHER FARM STOCK AND IMPLEMENTS PROPERTY OF W. F. ELLIOT, AT THE FARM, 2 MILES NORTH OF YORK STA., G. T. R. main line; 2 miles south of Wexford, C. P. R., on

TUESDAY, MAY 23, 1911

48 Head of Holstein-Friesian Cattle (44 females, 4 Bulls), Also H.-F. Herdbooks; 6 grade cows; 5 Clyde mares, from 1 to 5 years old; also a number of other horses. Sale to commence at 10 o'clock. If necessary, provision will be made for holding sale under cover. Write for catalogue. No reserve.



W. F. ELLIOT, Box 8, Coleman, Ont.

Col. B. V. Kelley, Syracuse, N. Y., Auctioneer.

REGISTERED TRADE MARK * * * GRANTED 1882 JOSEPH RODGERS & SONS, LIMITED, SHEFFIELD, ENG. AVOID IMITATIONS OF OUR CUTLERY BY SEEING THAT THIS EXACT MARK IS ON EACH BLADE. SOLE AGENTS FOR CANADA: JAMES HUTTON & CO., MONTREAL.

FAIRVIEW FARMS HERD—HOME OF:

Pontiac Korndyke, the only bull living that is the sire of four 30-pound daughters, and the sire of the world's record cow for seven and thirty days. Rag Apple Korndyke, sire of eight A. R. O. daughters that, at an average age of 2 years and 2 months, have records that average 17 1/4 lbs. each, and over 4.2% fat for the eighth. Three of them made over 20 lbs each. Sir Johanna Colantha Gladi, whose dam and sire's dam average 33.61 lbs. each for 7 days, which is higher than can be claimed for any other sire of the breed.

We are offering some splendid young bulls for sale from the above sires, and out of daughters of Pontiac Korndyke and Rag Apple Korndyke. E. H. DOLLAR, (near Prescott) HEUVELTON, NEW YORK

HOLSTEINS AND YORKSHIRES

More high-record cows in our herd than in any other in Canada, including the champion Canadian-bred three-year-old, and the champion two-year-old of the world for yearly production. The sire of these champions is our main stock bull. We have a large number of heifers bred to him that will be sold right to make room for our natural increase. Also bull that will be sold right to make room for our natural increase. Also sows safe calves for sale. We are booking orders for spring pigs, also sows safe when advised. Long-distance Bell phone 2471 Hamilton.

D. C. FLATT & SON, MILLROVE, ONT. R. F. D. NO 2

Lakeview Holsteins!

Having sold all bulls old enough for service, now offer two bull calves, born August 19th and September 20th, 1910. Both are sired by Count Hengerveld Fayne De Kol, and their dams have A. R. O. records of 11.55 and 16 lbs. butter in 7 days as two-year-olds. Telephone.

E. F. Osler, Bronte, Ontario

Woodbine Holsteins!

Offers for sale the great stock bull, Sir Creamelle, who is four years old. Kind and gentle, and has proven his ability as a sire, and to avoid inbreeding is offered for sale. Write for extended pedigree and price. Also young bulls sired by the above bull for sale. Phone connection. A. KENNEDY, AYR, ONT.

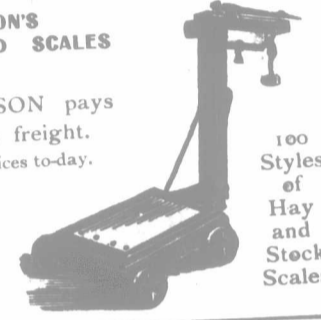
Centre and Hill View Holsteins We have added to head our herd a young bull from King Segis, world record sire, and a 26-lb. 4-year-old dam. Have 2 bulls born in January from Benheur Statesman. Their granddams have over 21 lbs. butter in 7 days. Also younger ones from good A. R. O. dams. These will be P. D. Ede, Oxford Centre, Woodstock Stn. sold right, considering their backing. LONG-DISTANCE TELEPHONE.

MAPLE HILL HOLSTEIN-FRIESIANS. Home of Evergreen March, champion milk and butter cow of Canada. Her four-year-old son for sale. Fifteen young cows and heifers for sale, bred to Prince Posch Pietertje C. and Choicest Canary. Come and see them. Prices moderate. Bell-telephone. G. W. Clemons, St. George, Ont.

NO INTEREST CHARGED

WILSON'S GUARANTEED SCALES

LISTEN! WILSON pays the freight. Get special prices to-day.



C. WILSON & SON, 79 Esplanade Street, Toronto, Canada.

100 Styles of Hay and Stock Scales

WE NEED THE MILK

For our milk contract, so all the bull calves from fifteen choice cows and heifers, due to freshen by April 1st, must go. This means attractive prices for you. Write us, you'll be surprised how good a call you can buy for how little money.

MONRO & LAWLESS, Thorold, Ontario

Fairmount HOLSTEINS

BULL CALVES FOR SALE. Herd headed by Aaggie Grace Cornucopia Lad, whose dam for four generations averaged 21.30 lbs. butter in 7 days. Owing to lack of milk, I will sell my coming crop of bull calves for half value. C. R. Gies, Heidelberg, Ontario

HOLSTEIN-FRIESIAN BARGAINS AT SPRINGBROOK.

Offering: Two rich-bred bulls, 10 months old, R. O. dams; one bull 20 months old. High-class stock. Price \$75 to \$85 each for quick sale. Come and see them. Don't lose time. A. C. HALLMAN, BRISLAU, ONT.

THE MAPLES HOLSTEIN HERD

Everything of milking age in the Record-of-Merit. Nothing for sale at present but a choice lot of bull calves sired by King Posch De Kol. Write for prices, description and pedigree.

Walburn Rivers, Falden's, Ontario

Elmwood Holsteins

Offer choice young cows to freshen during March and April, 1911. Spring crop calves. Sired by Ykema Sir Posch and Pontiac Saranatic—a grandson of Henderveldt DeKol. Prices right. Express prepaid. Safe delivery guaranteed. E. D. George & Sons, Putnam, Ont.

HOMEWOOD HOLSTEINS

Home of the champions. Headed by the great milk and butter bred bull, Grace Fayne and Sir Colantha. Only choice, thrifty bull calves for sale at present. M. L. HALBY and M. H. HALBY, SPRINGFORD, ONTARIO

Holstein Cattle—The most profitable dairy breed. Illustrated descriptive booklets free. Holstein-Friesian Ass'n of America. F. L. HOUGHTON, Secy, Box 127, Brattleboro, Vt.

Evergreen Stock Farm offers bulls 2 to 12 months, from high-testing stock, giving 12 lb. at 2 years to 22.38 lbs. per mature cows. Sired by Sir Margena Favorite. Dam and gr. dam have average record of 24.60 lbs. butter in 7 days. F. E. PETTIT, Burgessville, Ont.


DON'T

Buy a HOLSTEIN BULL till you get my prices on choice goods from eleven months down, from best producing strain. "Fairview Stock Farm." FRED ABBOTT, Harrietsville, Ont.

GLENWOOD STOCK FARM Have two yearling Holstein bulls fit for service, both of the milking strains. Will sell cheap to make room. The B. Carlaw & Son, Warkworth P. O., Ont. Campbellford Station.

RIDGEDALE HOLSTEIN-FRIESIANS—A few very choice bull calves left for sale, from large-milking and high-testing dams. Write for prices, or come and see them. Shipping stations: Port Perry, G. T. R., and Myrtle, C. P. R., Ontario Co. Long-distance phone. R. W. Walker, Utica, Ont.

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 St., Toronto, Ontario

WOOL

Let us know about how much you will have this season and the breed, that we may keep you posted on prices. You might as well sell to us, and make the most profit possible, instead of selling locally.

Please Send Us Now your name and address, so that we can keep in touch with you.

E. T. CARTER & CO.
84 Front Street E.
TORONTO, CANADA.

Alloway Lodge Southdowns

The Southdown is the best mutton sheep in America to-day, the championships at the winter fairs prove it. Southdown wool is finer than that of any other mutton breed. I get 4 cents a pound above market price. A Southdown ram makes the greatest improvement on a flock of good ewes. Ask anyone who has used one. Write me for prices; they will please you. Phone, Railway Stn., London.

ROBT. McEWEN, BYRON, ONT.

CATTLE and SHEEP LABELS

Metal ear labels with owner's name, address and any numbers required. They are inexpensive, simple and practical. The greatest thing for stock. Do not neglect to send for free circular and sample. Send your name and address to-day.

F. G. James, Bowmanville, Ont.

Oxford Down Sheep, Shorthorn Cattle, Yorkshire Hogs

Present offering: Lambs of either sex. For prices, etc., write to **John Cousins & Sons, Harrison, Ont.**

How great the virtue and the art, To live on little with a cheerful heart. —Pope.

CANNOT FAIL TO INTEREST WOMEN

Alberta Lady tells of her cure by **Dodd's Kidney Pills.**

Was weak, nervous, run-down and suffering from Rheumatism—**Dodd's Kidney Pills** made her a new person.

Beauvallon, Alta., April 24.—(Special).—Women who are nervous, run-down and suffering from Rheumatism, cannot fail to be interested in the case of Miss Gertrude E. Reyome, of this place. She was exactly in that condition. To-day she is, as she puts it herself, "a new person." **Dodd's Kidney Pills** cured her. Here is her statement, given for publication:

"My Kidney Disease started from a cold two years ago. Rheumatism set in, and I was weak and nervous, and in a run-down condition. I was attended by a doctor, who did not appear to understand my case. Three boxes of **Dodd's Kidney Pills** made a new person of me."

Is not Miss Reyome's condition an exact description of nine-tenths of the ailing women of Canada? The doctor did not understand her case. It was simple enough. It was Kidney Trouble. And Kidney Disease is the one great cause of women's troubles. **Dodd's Kidney Pills** always cure it.

QUESTIONS AND ANSWERS. Miscellaneous.

SUN SPURGE.

What is the best way to kill sun spurge? Would summer-fallowing till the first of August, and then sowing late turnips or rape kill it? Or would it be better to sow buckwheat and plow it down? **SUBSCRIBER.**

Ans.—"Farm Weeds" says that sun spurge will not long trouble lands worked under a short rotation, with clean cultivation. Special care is required to prevent the ripening of seed late in summer. The treatment you suggest, that of summer-fallowing till the first of August, and then sowing late turnips or rape, with clean cultivation following, should be effectual.

WAGES FOR TIME LOST BY SICKNESS.

Was hired to farmer for 12 months. During that time I was sick with la grippe for a week; also, whilst putting a can of milk onto wagon I slipped upon a sheet of ice, which was right outside of milk-house door, so that I strained my stomach and had to lay up about two weeks. On expiration of my time, my employer withheld the wages for the time I was sick. Would you kindly inform me whether he has power to do this, and whether I can claim wages for the above period? **J. S.**

Ans.—Your employer had no right to withhold your wages as he did. You can justly claim them.

TOULOUSE GOOSE EGGS.

Having seen in "The Farmer's Advocate" the picture of a pair of Toulouse geese, I would like to have a setting, or at least a half a dozen, of those Toulouse eggs. If you have not got them, please let me know where I can get them, as they are not advertised in "The Farmer's Advocate." **A. O.**

Ans.—This is the second enquiry for eggs of Toulouse geese that has been received since the cut of the geese appeared, voicing, no doubt, the desire of many readers. Breeders of these geese having eggs for sale would certainly find it to their advantage to advertise them in our columns. In the meantime, an advertisement by those desiring eggs inserted in our "Wants and For Sale" column would be worth while.

DIARRHEA IN LITTLE PIGS—SWOLLEN UDDERS.

1. A lot of young pigs take a diarrhoea when they are about four weeks old; feces sometimes a yellow color and sometimes white. We feed the sow on bran and shorts. They also take the trouble after they are off the sow up to the age of eight weeks. They are fed on middlings and milk. The froth is well taken off the milk.

2. We have cows that after freshening have very hard and swollen udders. They are fed before freshening silage twice a day, 15 pounds at a feed, with 3 pounds of bran, 4 pounds crushed oats, and 4 pounds mixed feed; i. e., bran, shorts, gluten meal and syrup to each meal, with a feed of hay, about 10 pounds, at noon. Have we been feeding too heavily before freshening? **J. L.**

Ans.—1. Diarrhoea in little pigs is frequent evidence of indigestion or cold. Sows should be kept in dry quarters. A single feed of sour buttermilk to the sow has been known to bring on scours in the pigs. If derangement arises from improper feeding, it must be cured by correcting the condition of the sow by change of feed. Judging from the slight data you furnish, it seems probable that the trouble arises from overfeeding. Usually the condition of the sow will come right by care to have her food sound and given regularly in moderate quantities.

Parched corn and scalded milk for one or two feeds will usually correct the trouble arising from indigestion or wrong feed. Sulphur mixed in the slop is often recommended, in doses of a tablespoonful each day, for three or four days.

For weaned pigs, the shorts given for a time should be limited in quantity and scalded or cooked.

3. If we read your letter aright, you have been feeding your cows before freshening 22 pounds of meal, some of it heavy each day. Overfeeding certainly. Yes, and too generous. No wonder udders are hard and swollen.

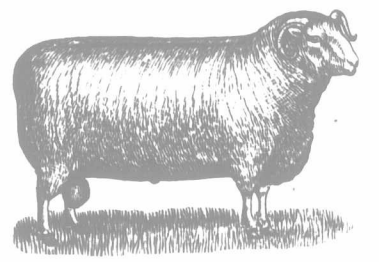
TIME TO DIP

THE BEST DIP

TRADE MARK
SOL-O-KRE
GERMICIDE

Sheep Dip

AND DISINFECTANT



Kills Ticks, Lice and Fleas

Cures Contagious Abortion, Hog Cholera, Mange and Eczema. Send for Our Veterinary Book.

1 Gallon, \$1.25, prepaid; 5 Gallons, \$5.75, prepaid;
WITHIN 250 MILES OF TORONTO.

Rochester Germicide Co.
11 JARVIS STREET, TORONTO.

STOP! LOOK!! READ!!! FAIRVIEW SHROPSHIRE!!!!

Are now increasing rapidly in number. Shearlings and lambs. Choice. Getting ready for the anticipated brisk trade. Write for circular and prices to:

J. & D. J. CAMPBELL, Fairview Farm,

Woodville, Ontario.

DUROC - JERSEY SWINE LARGE WHITE YORKSHIRES

30 choice young sows, bred and ready to breed. Young boars fit for service. Also a choice Jersey bull calf. Bell phone in house.



Am offering during the month of Feb. a choice lot of bred sows, young boars ready for service, and young pigs of

Mac Campbell & Sons, Northwood, Ont.

different ages. Orders booked for spring pigs. Pairs supplied not akin. All at reasonable prices. Write, or call on:

White Hampshire Hogs—Largest herd in Belted Canada. We bred the hogs that won both championships at Toronto and London for two years. Still have a few choice sows ready for service. Can furnish pairs or more not related. **HASTINGS BROS., Crosshill, Ont.**

H. J. Davis, Woodstock, Ont.
Long-distance Bell phone.

BERKSHIRES PROLIFIC STRAIN

A number of extra choice young sows, nearly two months bred. Also a lot of younger pigs—males and females. Address:

J. B. PEARSON, AGENT, VALLEY HOME FARM, MEADOWVALE, ONT.

Maple Leaf Berkshires

For sale: Young sows bred and ready to breed; boars fit for service; also young pigs eight to ten weeks old. Imp. sires and dams. Pairs not akin. **C. P. R. and G. T. R. Bell phone.**



Joshua Lawrence Oxford Centre, Ont.

CHERRY LANE BERKSHIRES!

At Toronto last fall our herd won both the boar and sow championships, as well as most of the other leading award. For sale are both sexes, from 6 months of age down to 1 month; the best types of the breed.

S. Dolson & Son, Norval Sta. P. O., Ont.

Pine Grove Yorkshires

orders for young pigs, not akin, for spring delivery. Descendants of imported stock. Property of **Joseph Featherston & Son, Streetsville, Ont.**

Hilton Stock Farm Holsteins and Tamworths.

Present offering: 6 yearling heifers and several younger ones. All very choice. Of Tamworths, pigs of all ages and both sexes; pairs not akin. **R. O. MORROW & SON, Hilton, Ont.** Brighton Tel. & Sta.

Morrison Tamworths

Bred from the best blood in England; both sexes for sale, from two to ten months old; young sows, dandies, in farrow to first-class boars. **CHAS. CURRIE, MORRISON, ONTARIO** Schaw, C. P. R. Guelph, G. T. R.

PLEASE MENTION THE ADVOCATE.

Monkland Yorkshires

I am making a special offering of 50 young bred sows. They will average 200 pounds in weight, and are from 6 to 7 months of age. An exceptionally choice lot, full of type and quality; also a limited number of young boars. **MATTHEW WILSON, FERGUS, ONTARIO**

Newcastle Tamworths and Shorthorns

For sale: Choice young sows bred and ready to breed. Boars ready for service; nice things, 2 to 4 months, by imp. boar. Dam by Colwill's Choice. Canada champion bulls, 1901-2-3-5. Two splendid young Shorthorn bulls and six heifers—bred. Prices right. Bell phone. **A. A. COLWILL, NEWCASTLE, ONTARIO**

Willowdale Berkshires.

For sale: Nice lot of 5 months' sows, one 5 months' boar. Eggs from my famous flock of R. C. R. I Reds, \$1 per 13. Express prepaid on 5 settings or more. Phone 52, Milton. **J. J. WILSON, Importer and Breeder, Milton, Ontario, C. P. R. and G. T. R.**

Pine Grove Berkshires.

Boars fit for service. Sows three, four and five months old. **Milton, C. P. R. Georgetown, G. T. R. W. W. Brownridge, Ashgrove, Ontario.**

Swine OF ALL BREEDS FOR SALE.

I breed Yorkshires, Tamworths, Berkshires, Hampshires, Chester Whites, Poland-Chinas and Duroc-Jerseys. I have constantly on hand both sexes of all ages. Show stock a specialty. **John Harvey, Freilighsburg, Que.**

FAIRVIEW BERKSHIRES

Ontario's banner herd. Prizewinners galore. For sale are: Young sows bred and others ready to breed, and younger ones. A number of young boars coming on. **JOHN S. COWAN, Donegal, Ont.**

MAPLE VILLA YORKSHIRES AND OXFORDS

A grand lot of boars fit for service. Some splendid sows to farrow to first-class boars. 30 ewe lambs, including 2nd pen at Winter Fair. Long-distance phone Central Beeton. **Bradford or Beeton Sta. J. A. CERSWELL, Bond Head, Ont.**

Elmfield Yorkshires

Present offering for quick sale: Young sows about 5 1/2 months old. Will register and crate for \$19.00 each. **G. B. MUMA, Ayr, Ont.**

For Sale—Ohio Improved Chester Hogs.

Sired by first-prize hog at Toronto and London. Also reg'd Jersey Bulls, from 8 to 10 months, from high-testing stock. Write: **CHAS. E. ROGERS, Ingersoll, Ont.**

FEEDING BRAINS

Why Studious Children Always Crave Oatmeal

Nature gives oats more organic phosphorus than to any other grain she grows. And phosphorus is the brain's main constituent. Brains can't grow, brains can't work without it.

Oats also contain more lecithin—the nerve food—than any other grain. They form our greatest energy food.

That's why growing children love oatmeal. Some instinct within them calls for these elements, and woe to the child who doesn't get all it wants.

The right oats for food are the rich, plump grains. In the choicest oats there are but ten pounds to the bushel. In making Quaker Oats these choice grains are selected by 62 separate siftings.

Quaker Oats—just the cream of the oats—costs but one-half cent per dish. One dish is worth two dishes of common oatmeal. Don't you think it would pay to serve your children such oats?

Made in Canada. (172)

Don't Wear A Truss

Ten Reasons Why You Should Send For My New Appliance

I Send It On Trial

It is absolutely the only Appliance of the kind on the market to-day, and in it are embodied the principles that inventors have sought after for years.

The Appliance for retaining the rupture cannot be thrown out of position.



The above is C. E. Brooks, of Marshall, Mich., who has been curing Rupture for over 30 years. If ruptured write him to-day.

Being an air cushion of soft rubber, it elings closely to the body, yet never blisters or causes irritation.

Unlike the ordinary so-called pads, used in trusses, it is not cumbersome or ungainly.

It is small, soft and pliable, and positively cannot be detected through the clothing.

The soft, pliable bands holding the Appliance do not give one the unpleasant sensation of wearing a harness.

There is nothing about it to get foul, and when it becomes soiled it can be washed without injuring it in the least.

There are no metal springs in the Appliance to torture one by cutting and bruising the flesh.

All of the material of which the Appliances are made is of the very best that money can buy, making it a durable and safe Appliance to wear.

My reputation for honesty and fair dealing is so thoroughly established by an experience of over thirty years of dealing with the public, and my prices are so reasonable, my terms so fair, that there certainly should be no hesitancy in sending free coupon to-day.

Remember I send my Appliance on trial to prove what I say is true. You are to be the judge. Fill out free coupon below and mail to-day.

FREE INFORMATION COUPON

C. E. Brooks, 5295 Brooks Bldg., Marshall, Mich.

Please send me by mail in plain wrapper your illustrated book and full information about your Appliance for the cure of rupture.

Name

Street

City.....State.....

TRADE TOPIC

A DIFFICULTY OVERCOME—In the last few years, swinging stanchions have come to be recognized as the ideal tie for cows. While allowing them the maximum of freedom and comfort, they keep cattle better in place in their stalls than any other form of ties. A cow is free to lie down on either side, and to card herself without hindrance, but she cannot move to or from the gutter, so that the part of the floor, on which she is, will remain practically clean. Stanchions are also the quickest ties to operate, as cattle can be tied or untied in one-sixth the time necessary with chain ties. One difficulty, however, has arisen with the use of steel stalls and stanchions, namely, that of getting the cows to put their heads into the open stanchions, and not to the one side of them when entering the stalls. When they enter to the wrong side or to the back of the stanchion, considerable time is lost in getting them into their right places. Owing to the openness of the construction used with steel stalls and swinging stanchions, a frightened animal would sometimes enter its stall to the wrong side of the stanchion, and then crowd right on through into the manger and feed alley. To overcome this difficulty, some firms have adopted double-post stalls, but these double-post stalls are objectionable, as they prevent the cow from turning her head around to card herself, or to bring it round on her side when she is lying down. An entirely new idea that overcomes the difficulty splendidly, has just been placed on the market by Beatty Bros., of Fergus. A swinging post, or sure-stop post, as they call it, stands between the stanchion and the stall post, making it impossible for the cow to put her head anywhere but in the stanchion. It makes it entirely impossible for any animal to get into the feed manger or feed alley. After all the stanchions are closed, with one pull of a lever, all the sure-stop posts are swung back against the partitions, so that they in no way interfere with the freedom of the cows. The swinging sure-stop post adds very little to the cost of the stall, and is considered by all who have seen it, a necessary part of a stall. See Beatty Bros.' advertisement on another page in this issue.

GOSSIP

At the dispersal sale of the flock of Lincoln sheep, the property of J. E. Caswell, at Laughton, Lincolnshire, March 30th, the average for 127 head sold was \$22.50. The first pen of five ram and ewe lambs brought \$55 per head. A pen of five yearling ewes made \$21.50 each.

Eight imported Clydesdale stallions, three to seven years old, bred in the purple, good doers and in ideal condition for the season, are offered in his advertisement, by T. H. Hassard, Markham, Ont., at moderate prices, and on easy terms. These are good, big horses, of desirable type and quality, and by some of the best sires in the Old Country. Markham is easy of access, twenty miles from Toronto, on the C. T. R., and three miles from Locust Hill, C. P. R., and visitors will be met at either station on shortest notice. Mr. Hassard invites inspection of these horses, and is confident they will give satisfaction to purchasers.

Bishop Watterson, of Nebraska, was never at a loss for an answer to impertinent questions. One day he met a man on the train who mistook him for a travelling salesman, and started in to quiz the Bishop.

"Do you represent a big house?" he began as an opener.

"The very biggest on earth," replied the Bishop with a twinkle in his eye.

"What's the name of the firm?" continued the questioner.

"Lord and Church," smiled the Bishop, pleasantly.

"Hum! 'Lord and Church!' Never heard of it. Got any branch houses anywhere?"

"Oh, yes, indeed, branch houses all over the world."

"Hum! That's queer! Never heard of them. Is it boots or shoes?"

"Neither."

"Oh, I see; dry goods, I suppose."

"Well, yes; they do call my sermons that sometimes."

Peerless Fences cost the least per year of service

THE longer a fence lasts the less it costs you. That is why Peerless Fence is the cheapest you can buy. It is made right in the first place. Heavy steel wire, well galvanized so that it cannot rust. Each intersection is held firmly together by the Peerless lock. Peerless Poultry Fencing is made to give long and satisfactory service. It is strong enough to keep the cattle out and close enough to keep the chickens in. It requires few posts, because it stands stiff and taut. Peerless Lawn Fence will add to the appearance of any property. It is attractive and strong—will last for years.



I have compared some of your Peerless Fencing that I put up the first year with other fences put up the same year and I find that Peerless Fencing shows no sign of rust, and the galvanizing looks as good as when erected, and I think you have been successful in turning out a good fence.

—Mack Lillis, Glenburnie.

Comparing your fence with other makes it is not hard to tell which is the best. There is no sign of rust on the first Peerless Fencing I put up here, and there are some other makes that were put up about the same time that are rusted in spots now. Where I have sold fencing once I can go back and sell to them again.

—G. A. Perapiece, Oxford Mills.

We manufacture a full line of farm and ornamental fencing and gates.

THE BANWELL HOXIE WIRE FENCE CO., Ltd.
Dept. B, Winnipeg, Manitoba Hamilton, Ontario

Sharp, Stiff Discs and Sure-Cleaning Scrapers

When you require a Disc Harrow, be sure and examine the "Lion." It is one of those famous Frost & Wood machines that work so satisfactory. The sharp, stiff discs will pulverize and loosen the surface of the land just exactly right. Even if the soil is sticky the "Lion" works O.K., because it has sure-cleaning Scrapers that absolutely prohibit the discs from getting clogged. Two horses handle the "Lion" comfortably and there is no side draft. It is built of the very best materials throughout, as is all Frost & Wood farm machinery.

Frost & Wood Co., Ltd., Smith's Fall, Canada

Please send for catalogue F 42 and get complete particulars about Frost & Wood in-throw and out-throw harrows.

Frost & Wood "Lion" Disc Harrow

This Wagon Will Carry Heavier Loads At a Saving of Time and Horses



T-K Wide-Tire Steel Wheels Make Farm Work Lighter



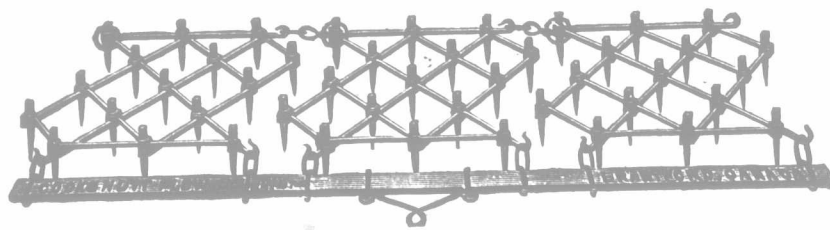
The farmer who investigates at once sees points of great superiority in these wheels. He sees the reason for wide steel wheels, staggered spokes and indestructible hub. He sees why, under any road condition, there is no danger of accidents, side strain or wear on his farm wagon, and how it is possible to haul 25 to 50 per cent. greater load without tiring the horses. There are other points of superiority. Write for catalogue, and learn how farm work is made profitable with our vehicles and equipments.

TUDHOPE-KNOX CO., LTD., ORILLIA, ONT.



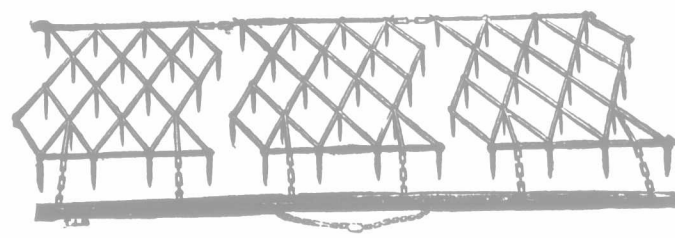
A Most Important Operation is Preparing the Seed Bed. Do it Right!

Farmers who are getting the best results from their land know that the preparation of the Seed Bed is the most important operation. Those who are NOT getting right results are probably not paying enough attention to this. Why not investigate? "Cockshutt" implements give best results under all conditions and are, therefore, the ones you should have on your farm.



"Cockshutt" Scotch Clip Harrow

THIS drag harrow, with an all-steel frame, is the ideal harrow for hard, heavy work. The teeth are made of extra tough and hard high carbon steel. They are wedge-shaped, and when driven into malleable clips they cannot become loose. As the teeth wear down they can be easily adjusted for length, or removed and very cheaply renewed. There are no bolts or nuts to shake loose, thus avoiding endless trouble. Made in three different weights, in two, three, four, five or six sections, with 15 or 20 teeth to a section, as desired. This range of choice gives the farmer every opportunity to select a harrow which will exactly suit his needs.



"Cockshutt" Diamond Harrow

THE "Diamond" harrows are made of high carbon channel steel, carefully put together and embodying the most practical ideas. They make an excellent seeding harrow and will give complete satisfaction.

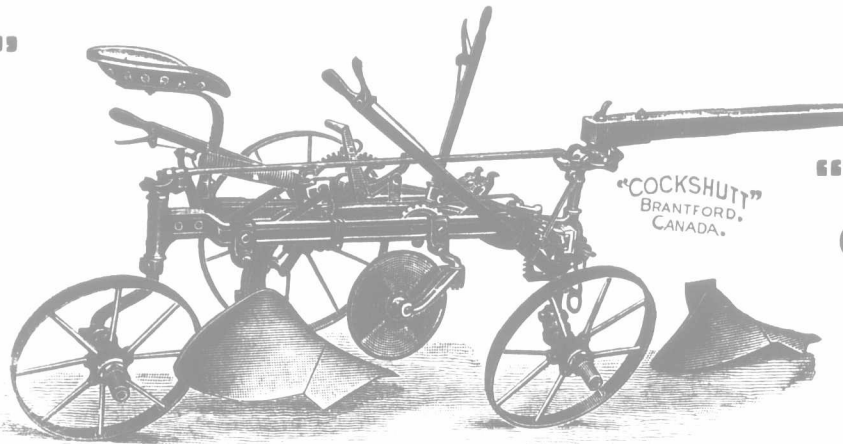
For all kinds of light work the "Diamond" harrow cannot be improved on. They are strong and serviceable and really will do their work better than any other light harrow on the market. They are made in 2, 3, 4, 5 and 6 sections, with stay chains between the sections to keep them from spreading or swinging apart. Like all other "Cockshutt" implements the "Diamond" harrow is thoroughly dependable.

"COCKSHUTT" ONTARIO FOOTLIFT SULKY

This plow, one of our latest designs, has already made a name for itself among Ontario and Eastern farmers, for whose use it was especially designed.

It is fitted with our Judy or No. 21 bottoms, which are so well known that a detailed description is not needed here. But the one thing which makes this the ideal sulky is the footlift attachment, which enables any boy who can drive a team of horses to do as good work as a man.

The levers are very conveniently arranged, and need no attention in the field, as the plow when once set is operated entirely by the footlift attachment. A special device locks the plow up when raised from the ground, and locks it down when set for work. It is also arranged so that the plow will rise when striking a stone, thus preventing breakage, most useful when plowing stony land. It is fitted with rolling colter, knife, and other attachments as desired.



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