

**PAGES
MISSING**

THE Bay of Quinte DISTRICT

Is famous for its fertile farms and up-to-date farmers. This year they have grown a large crop of clean, well-colored

RED CLOVER

which will comply with the "Seed Control Act." I can save you money, because I buy from the grower and sell direct to you. Also good values in Alfalfa, Alsike, Timothy and all small seeds. Let me know your requirements, and you will receive samples and prices by return mail. Special quotations to farmers' clubs.

JAMES HANLEY,
Seed Merchant,
Belleville, Ontario.

GRAND TRUNK RAILWAY SYSTEM

REDUCED RATES

For One-Way Tickets
March 10 to April 10
Inclusive

TO THE FOLLOWING POINTS

VANCOUVER, B. C.
SPOKANE, WASH.
SEATTLE, WASH.
PORTLAND, ORE.
SAN FRANCISCO, CAL.
LOS ANGELES, CAL.
MEXICO CITY.

Full particulars and tickets from:
Grand Trunk Agents

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.

For full information regarding home-
stead regulations and special colonization rates to settlers, write:

The Director of Colonization,
DEPARTMENT OF AGRICULTURE,
TORONTO.



BUILD CONCRETE SILOS
Any size with the London Adjustable Silo Curbs. Send for Catalogue. We manufacture a complete line of Concrete Machinery. Tell us your requirements. **LONDON Concrete Machinery Co., Limited.** Dept. B, London, Ont.

London Adjustable Silo Curbs. Largest manufacturers of Concrete Machinery in Canada. 1

INVENTIONS Thoroughly protected in all countries. **EGERTON R. CASE,** Registered U. S. Patent Attorney, DEPT. E, TEMPLE BUILDING, TORONTO. Booklets, Plans and Drawing Sheet on request.



"A thing of beauty is a joy forever"

Are you interested in making your home one of pleasant surroundings? It is an easy thing to do. A little paint, stain or varnish, here and there, will help to "Brighten Up." The selection of your material, however, is all important, for there is a wide variance in paint and varnish. First be sure and get the best quality—it's more economical—it lasts longest and looks best. Then be sure and get just the right kind of paint, varnish, stain or enamel for your purpose. Do you know that The Sherwin-Williams Co. has a staff of expert decorators ready at any time to suggest color schemes for your interior decorating free of cost if you write for the service? Ask the local S-W dealer about it.

SHERWIN-WILLIAMS PAINTS & VARNISHES



Sherwin-Williams Paint, Prepared (SWP) is made from pure white lead, pure zinc, pure linseed oil, and the necessary coloring pigments and driers.

Sherwin-Williams Varnishes are made from the best gums, pure linseed oil, pure turpentine, and are thoroughly filtered and aged. They spread and wear well.

THE SHERWIN-WILLIAMS Co.

MONTREAL TORONTO WINNIPEG VANCOUVER

IDEAL GASOLINE ENGINES

STATIONARY, MOUNTED AND TRACTION



OUR FACTORIES:

We have one plant for the manufacture of Engines, and the other for Windmills, etc. Each is the largest and best equipped in Canada covering the lines manufactured. Satisfied customers have produced this result.

Windmills,
Grain Grinders,
Pumps,
Tanks,
Water Boxes,
Concrete Mixers,
Etc., Etc.

Goold, Shapley & Muir Co., Limited

Branches throughout the West.

BRANTFORD, ONTARIO



Here's the Fence That is all Steel—

Steel wires, steel locks, steel posts. Standard Woven Wire Fence is 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 other things about the Standard Wire Fence and our Metal Gates of Galvanized Tubing. Our books are full of fence facts. Write for free copies and sample lock.

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

WHEN WRITING ADVERTISERS MENTION THE FARMER'S ADVOCATE.

WESTERN FARMERS LOSING \$1,000,000 YEARLY

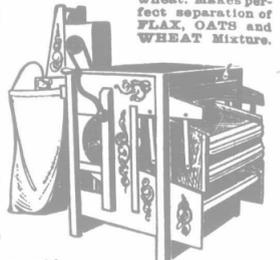


through selling unclean grain. Hon. Sydney Fisher says: "Universal prevalence of weeds in Canada is the greatest evil we have to contend with. If Canadian agriculture is to flourish the nuisance caused by weed seeds must be stamped out." Let me show you how you can separate and grade ALL kinds of seed, eliminate ALL weed seed, all shrunk grains, smut and dust, easily, quickly and thoroughly with the

CHATHAM FANNING MILL and Seed Grader

Absolutely separates wild and tame oats from wheat. Makes perfect separation of FLAX, OATS and WHEAT Mixture.

Saves its cost every year in better crops, work saved, higher market prices for your grain. Ask about my free trial offer.



Send for Free Book No. 19

Address nearest place

GRAY-CAMPBELL LIMITED
Screens and Riddles Enough for Every Purpose
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Saskatoon Calgary 203

WILSON'S GOLD MEDAL SCALES

GET SPECIAL PRICES FOR YOU

LISTEN!
WILSON pays the freight.

Get special price list to-day.



100 Styles of Hay and Stock Scales

C. WILSON & SON, 79 Esplanade Street E. Toronto, Canada.

Saves work and wages

THOUSANDS of farmers are reducing the cost of planting and increasing the production by using the ASPINWALL POTATO PLANTER. This machine does all the work automatically, requires no human aid other than the driver, and soon pays for itself out of the wages it saves. What the Aspinwall No. 3 Potato Planter has done for others it will do for you. Write for catalog descriptive of our POTATO CUTTERS, PLANTERS, SPRAYERS and SORTERS. Address Dept. F. Aspinwall Manufacturing Co. Jackson, Mich., Canadian Factory: Guelph, Ont.

No. 3 Aspinwall Potato Planter

Seed Grain for Sale

Seed oats (white), Crown Jewel variety, early and good yielding. Mandchuri barley, a good sample and good grain, just grown 3 years since received from Guelph. This grain was grown on good loam soil, free from impure weed seeds, cleaned and graded. Grain in quantities, and can ship C. P. R. or G. T. R. to suit purchaser. Prices, samples, etc., on request. Write:

Andrew Sinclair, McIntyre, Ontario.

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 acclimated 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, self-regulating fodder for cattle, horses, hogs 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.

Corn that Will Grow

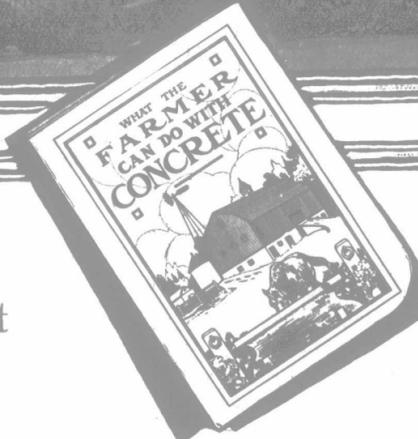
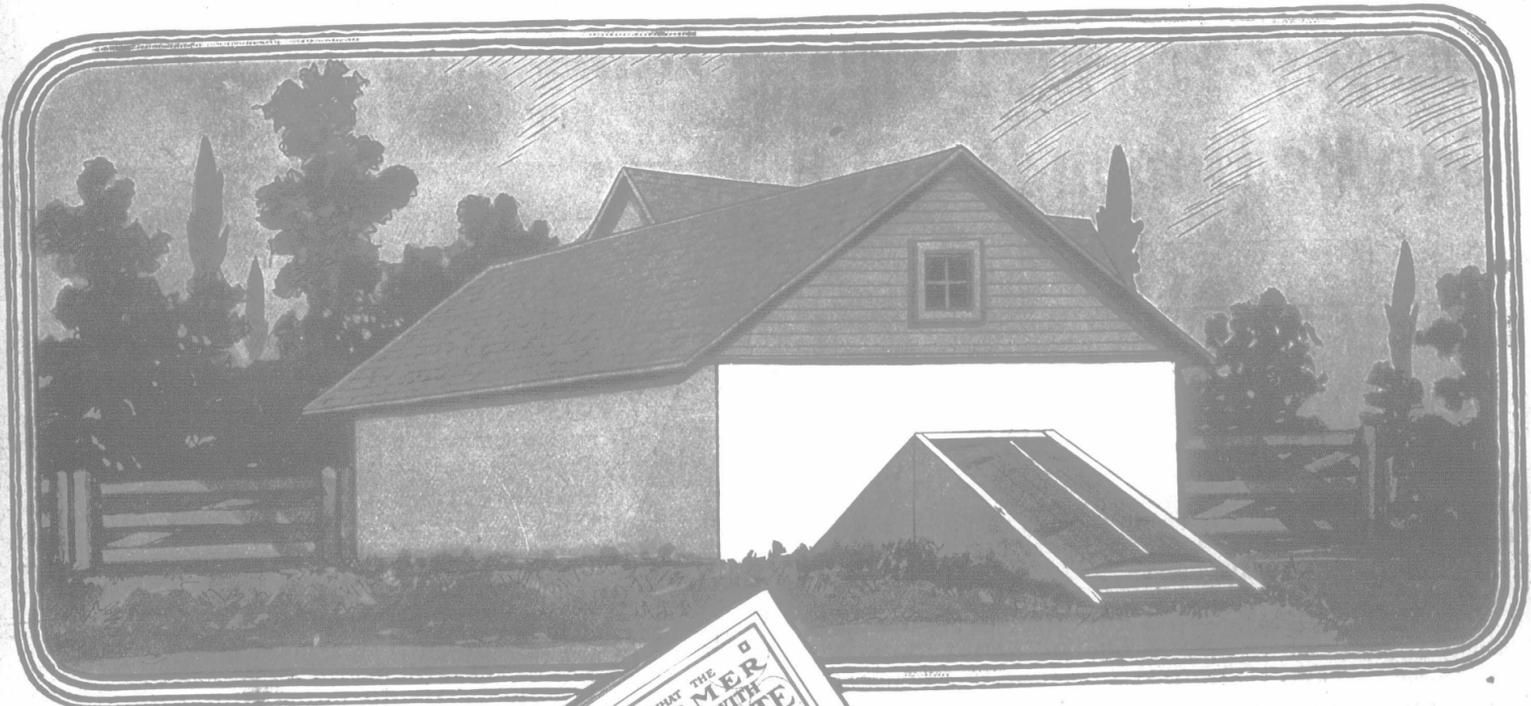
Canadian-grown seed corn. Your money back if not satisfied.
J. O. DUKE, RUTHVEN, ONTARIO.

Choice Seed Grain Grown, harvested, cleaned under our personal supervision. Guaranteed No. 1 Government standard. Mandchuri Barley, per bush, 75c.; Thousand-dollar Oats, per bush, 65c.; Improved Crown Peas, per bush, \$1.10. Bags included. Free on board Mining. Foyston Bros., Mining, Ont.

Registered Seed Grain for Sale

Newmarket Oats and Mandchuri Barley. Grown according to the rules of the Canadian Seed-growers Association. Also Daubeny Oats not registered.

C. R. Gies, Heidelberg, Ontario.



You can build this concrete root cellar yourself—at little cost

THE ideal Root Cellar is built of Concrete—ideal from the stand-points of economy, convenience, and permanence.

This is also true of almost every conceivable kind of structural work about the farm—

To build well, you should build of Concrete.

This is not a random statement, or one made solely with self-interest—but an established fact—a fact known already to hundreds of farmers, and one that you will accept, once you've read our book, "*What the Farmer Can Do With Concrete.*"

It contains one hundred and sixty pages of information of great value to every farmer—

Including plans and illustrations that will enable you to build, yourself, at little cost, well-nigh any building or out-house that may be required about your farm.

Our free book tells how and gives you much other valuable information

MOST people, nowadays, know that you can make almost anything with Concrete—from a house to a hitching-post.

But what many do not know is that, to mix and use Concrete, one requires practically no technical knowledge—

All that you require to know is told clearly in our 160-page book—

A book that is price-marked "50 cents," but that we will send free to any farmer who asks for it.

Fill out the coupon—and send it to us to-day.

"What the Farmer Can Do With Concrete"

Tells you how to use Concrete in constructing:

- | | | |
|----------------|----------------|------------|
| Barns | Houses | Tanks |
| Cisterns | Poultry Houses | Troughs |
| Dairies | Root Cellars | Walks |
| Dipping Tanks | Silos | Well Curbs |
| Foundations | Sheds | Etc., etc. |
| Fence Posts | Shelter Walls | |
| Feeding Floors | Stables | |
| Gutters | Stairs | |
| Hens' Nests | Stalls | |
| Hitching Posts | Steps | |
| Horse Blocks | | |

It contains complete information and is profusely illustrated.

You may send me a copy of "*What the Farmer Can Do With Concrete.*"

Name

Address

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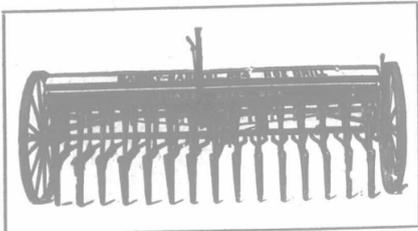
Canada Cement Company, Limited

65-70 National Bank Building, MONTREAL

Massey-Harris Drills Can Be Depended On

The work of a Drill can only be accurately judged at harvest time, for it's results that count. It's worth while, therefore, to select a Drill that has a reputation for reliability as proved by actual results, and you will save yourself a lot of worry and uncertainty.

MASSEY-HARRIS DRILLS have been in use for many years in all parts of the grain-growing world and have won a very enviable reputation for



"A good start is half the Battle." Sowing your grain with a Massey-Harris Drill is a big factor in securing a good start of grain and a bountiful harvest. Uniformity in sowing is a characteristic of all Massey-Harris Drills. They sow the desired quantity at the desired depth and always cover satisfactorily.

their satisfactory work under varying conditions. Perhaps the best proof of their superiority is the steadily increasing demand for these Drills. Where most used they are most appreciated.

They are made in a great variety of styles and sizes to meet all sorts of conditions:—Hoe Drills, Shoe Drills, Single and Double Disc Drills, Fertilizer Drills, etc., so that no matter what your requirements there is a Massey-Harris Drill to suit.

MASSEY - HARRIS CO., Limited

Toronto — Montreal — Moncton — Winnipeg
Regina — Saskatoon — Calgary — Edmonton

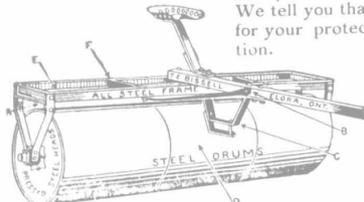
Get the light-draft

"Bissell"

Don't make your horses wear out their energy dragging one of those common hard-running land rollers. Hitch them to the light-draft "BISSELL." The "BISSELL" runs easier than other land rollers, because it has large 1/2 inch roller bearings instead of the usual 3/8-inch diameter. And because the bearings are encased in solid, one-piece malleable cages, whereas ordinary cages are of pieces riveted together. Our solid cages keep the bearings straight in line, whereas riveted cages soon twist out of shape and allow the bearings to grind, causing heavy draft. And because the heavy 2 inch solid steel axle revolves with the drums the "BISSELL" is so nearly frictionless that

oiling is scarcely ever necessary. The "BISSELL" is staunchly built. It is the only roller with steel plate bottom in the frame. Compare the "BISSELL" with any other roller, especially at work in the field, and you'll quickly decide to buy the "BISSELL." Send to Dept. W for booklet containing full description of the 6-, 8-, 9-, 12-ft. lengths. We also make a Grass Seeder Attachment for use with the "BISSELL."

And don't believe any roller is the "BISSELL" unless the name "BISSELL" is stamped on it. We tell you that for your protection.



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



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.

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. Petapick, 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

VANCO LEAD ARSENATE

Kills Codling Moth and Leaf-eating insects every time.

VANCO contains a guaranteed amount of Arsenic Oxide. Simply mix VANCO LEAD ARSENATE with water and you have a spray that is sure death to Codling Moths, Potato Bugs, Cabbage Worms, Asparagus Beetle and all other leaf-eating insects.

Easy to spray—will stand two or three rains without washing off—and will not burn the foliage.

Absolutely guaranteed in quality and strength. Made in Canada. Factory near at hand, means low prices and less freight.

Write for prices and free book on spraying.

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

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



POTASH MEANS PROFIT

During the fiscal year, ending March 31st, 1910, the consumption of Potash in the form of

Muriate of Potash and Sulphate of Potash

increased 89% over the previous year, which testifies to the beneficial effects attending the use of POTASH on all crops. Order your Potash supplies early from reliable fertilizer dealers or seedsmen.

We cannot sell you fertilizers, being engaged exclusively in educational propaganda work, but it is our business to advise you how to purchase and use fertilizers economically.

We can arrange for a limited number of free addresses on the fertilizer question to farmers' meetings in Ontario. Apply without delay to B. Leslie Emslie, P. A. S. I., F. C. S., 1105 Temple Building, Toronto.

Write us for Free copies of our Bulletins, which include: "Artificial Fertilizers: Their Nature and Use." "Fertilizing Orchard and Garden." "Farmer's Companion." "Records of Fertilizer Experiments." Etc., etc.

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



**RENNIE'S
BEST
XXX**

Clover & Grass Seeds

Acknowledged by leading authorities to be the highest possible grades obtainable

**RED CLOVER
TIMOTHY
ALFALFA (Lucerne)
MAMMOTH CLOVER
ALSIKE CLOVER**

Sold in Sealed Bags by Leading Merchants, or direct from

**Wm. Rennie Co. Limited
TORONTO**
Branches at Montreal, Winnipeg, Vancouver

It's Your DUTY to Save!

You owe it to yourself—to your family and parents—to save some of your earnings. It's a part of your duty—to prepare for opportunities and old age.

Open an account here—to-day. One dollar will start it, and earns 3½% compound interest.

**The Ontario Loan and
Debenture Co.**

A. M. SMART, MGR. DUNDAS ST & MARKET LANE
LONDON, CANADA.



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. 5

**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.

Please send for catalogue F 42 and get complete particulars about Frost & Wood in-throw and out-throw harrows.

Frost & Wood Co., Ltd., Smith's Fall, Canada

**Frost & Wood
"Lion" Disc Harrow**

GILSON ENGINE
"GOES LIKE SIXTY"

Always ready for work. Perfectly adapted for operating all farm machinery from the pump to the biggest Thresher. Improved cooling, governing and sparking devices. Up to date. All sizes. Write for catalogue. Gilson Mfg. Co. Ltd., 2 York St., Guelph, Can. FOUNDED 1850 C48

When Writing Advertisers, Please Mention "The Farmer's Advocate."

SEEDS

Seed Grain.

OATS—Regenerated Abundance	\$ 1 00 bush.
“ White Snow Drop	75 “
“ Bumper King	75 “
“ Irish White	65 “
“ Mammoth Cluster	65 “
“ White Jewel	60 “
“ Banner	80 “
“ Dauboney	60 “
“ 20th Century	60 “
“ Sensation	60 “
“ Ligowa	65 “
All F. O. B. Guelph. Bags extra @ 25c.	
BARLEY, O. A. C. 21, Special	\$ 1 10 bush.
Bags extra. Another new lot just arrived.	
GOOSE WHEAT—Fancy	\$ 1 25 bush.
“ Choice	1 10 “
SEED PEAS—Golden Vine	\$ 1 10 bush.
“ Early Centennial	1 10 “
“ Multipliers	1 10 “
Bags extra @ 25c.	
RED CLOVER—Choice Government Standard	\$ 9 50 bush.
ALFALFA CLOVER—Choice Government Standard	\$13 50 bush.
Bags extra.	
TIMOTHY—Choice	\$ 7 00 bush.

THE HEWER SEED CO.,
90 Macdonnell St. East,
Guelph, Ont.

SEED PEAS SEED BEANS SEED OATS SEED POTATOES

Canada Field Peas, French Field Peas,
Pea Beans, 20th Century Oats.
Potatoes: Early, Medium
and Late. For sale by

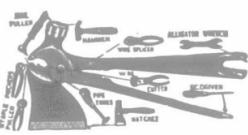
W. P. NILES, Grower of Seed
Peas and Beans
Wellington, Ontario.



SELLER THE FENCE MAN
TORONTO, CANADA
Sells his Crown Wire and Iron
Fences and Gates at
factory prices; also
barbed, coiled and plain wire, fence tools,
etc. Ask for free catalogue.

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.



MAY MFG. CO.,
ELORA, ONTARIO.

PLEASE MENTION THE ADVOCATE.

Save One Dollar, Lose Two

Isn't that just about the size of it—when something shoddy and cheap is foisted on you in place of the

DE LAVAL CREAM SEPARATOR

You see, the early disability of the shoddy thing, and poor performance while it does hang together, makes it a losing proposition no matter how cheap.

The De Laval for satisfaction.

Send for beautifully illustrated catalog.

The De Laval Separator Co.
173-177 Williams St.
MONTREAL
VANCOUVER—WINNIPEG

Agents everywhere.

SPRAYS AN ACRE IN TWENTY MINUTES

The H.-P. SPRAMOTOR will spray an ACRE of potatoes in only 20 MINUTES. No other method known can do that work in even twice the time.

The picture here shows the H.-P. SPRAMOTOR spraying potatoes. There are three nozzles to a row, and four rows. Two spray from the sides, and one from the top. They are adjustable to height and width up to 40-inch rows. The nozzles will not clog or get out of order. Have a 12-gallon air tank, with 100 pounds pressure guaranteed with 12 nozzles open. Automatic and hand controlled. The SPRAMOTOR has a agitator clean-out pressure relief into tank, and nozzle protector, all under control of the driver from seat. The SPRAMOTOR is made for 1 or 2 horses. Fitted for Orchard, Vineyard and Grain Crops. Can be operated by hand. The SPRAMOTOR SAVES enough money in time and labor to PAY FOR ITSELF in 1 year on 20 acres of potatoes. Don't be content with moderate results when you can increase per crop 3 or 4 times. Send for FREE TREATISE ON CROP DISEASES. AGENTS WANTED.

Spramotor Limited, 1363 King St., London, Canada.

Planet Jr.

"makes it only play to work a garden"

This is exactly what a Planet Jr gardener says. And he says what over a million farmers and gardeners think. They know the time and labor their Planet Jrs save. Aren't you ready to give up the drudgery of farm and garden? Planet Jr implements are ready to lighten your labor, enlarge and better your crops, and increase your profits. Made by a practical farmer and manufacturer with over 35 years' experience. Fully guaranteed.

No. 25 Planet Jr Combined Hill and Drill Seeder, Double Wheel Hoe, Cultivator and Plow opens the furrow, sows seed in drills or hills, covers, rolls and marks out next row in one operation; and it has perfect cultivating attachments besides.

No. 8 Planet Jr Horse-Hoe and Cultivator will do more things in more ways than any other horse-hoe made. Plows to or from the row. A splendid furrower, coverer, hiller, and horse-hoe; unequalled as a cultivator.

The 1911 Planet Jr illustrated catalogue is invaluable to every progressive farmer and gardener. 56 pages brimful of helpful hints on labor-saving. Free and postpaid. Write for it today.

S L Allen & Co
Box 1108F Philadelphia Pa

WRITE FOR THE NAME OF OUR NEAREST AGENCY.

FARMERS, FRUIT, AND VEGETABLE GROWERS

WHY ARE YOU IMPORTING PHOSPHATE AND AMMONIA WHICH IS A BY-PRODUCT OFF 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

AGENTS 100% PROFIT

15 In One

Just out. Patented. New Useful Combination. Low priced. Agents aroused. Sales easy. Every home needs tools. Here are 15 tools in one. Essex Co., N. Y. agent sold 100 first few days. Mechanic in shop sold 50 to fellow workmen. Big snap to hustlers. Just write a postal—say: Give me special confidential terms. Ten-inch sample free if you mean business. THOMAS MFG. CO., 5744 Wayne Street, DAYTON, OHIO

We Give Satisfaction.

"I was much pleased with my course, especially the care taken by the teachers in correcting the examination papers."—A. S. Benner, McDonaldville, Alta. (Graduate in Complete Commercial Course). WHY CAN'T WE HELP YOU? Our Complete Commercial Course includes Bookkeeping, Arithmetic, Business Correspondence, Commercial Law and Penmanship; Shorthand and Typewriting also taught. Write for information. **Canadian Correspondence College, Limited, Dept. E., Toronto, Canada.**

BOYS FOR FARM HELP

The managers of Dr. Barnardo's Homes invite applications from farmers, or others, for the boys who are arriving periodically from England to be placed in this country. The young immigrants are mostly between 11 and 13 years of age; all will have passed through a period of training in Dr. Barnardo's English institutions, and will have been carefully selected with a view to their moral and physical suitability for Canadian life. Full particulars as to the terms and conditions upon which the boys are placed may be obtained upon application to Mr. Alfred B. Owen, Agent Dr. Barnardo's Homes, 60-62 Peter St., Toronto.

Strawberry Plants

40 leading varieties. Sold at reasonable prices. Catalogue and price list free. 100 plants sent postpaid to any address in Canada for \$1.00.

Downham's Strawberry and Pheasant Farm,

Strathroy, Ontario

Farms Wanted

Don't pay commissions. We find you direct buyer. Write, describing property, naming lowest price. We help buyers locate desirable properties FREE. **American Investment Association, 34 Palace, Minneapolis, Minn.**

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, Aphis, 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 show and give large capacity with high pressure. Let us prove this to you. Send for illustrated catalogue.

NIAGARA BRAND FACTORIES:

NIAGARA SPRAYER CO., Middleport, N. Y.
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.
MEDFORD SPRAY CO., Medford, Ore.

NIAGARA BRAND SPRAY CO., LTD., Burlington, Ont.

Trade-mark.



EDITORIAL.

The man who lives for money lives in vain.

The soil and the seed is the practical problem of the hour.

Read and re-read the masterly contributions in this issue relating to seeding operations, by J. H. Grisdale and L. S. Klinck.

The application of the principles involved in the questions introduced in the last issue of "The Farmer's Advocate," in relation to soil culture and seeding, would, in the opinion of Prof. J. H. Grisdale, of the Central Experimental Farm, revolutionize Canadian agriculture.

One good result to date of the reciprocity issue is that it has to some extent diverted the attention of American newspapers and magazines from their persistent prattle about the Latin republics of Central and South America, and focussed their vision upon the nascent, self-governing nation spread across the northern half of the North American Continent.

The present Government of Canada has paid out \$16,315,862 in iron and steel bounties, \$1,580,793 in lead bounties, \$243,254 in manilla fibre bounties, and \$1,888,195 in petroleum bounties. Twenty million dollars, which these aggregate, is quite a tidy sum to spend on a nursing bottle. There is no reason why the iron and steel bounties should be renewed.—(Toronto Star.

That 2,200 people own half the land of England, is the rather startling statement accredited by our English correspondent to Professor Macgregor, of Leeds University. The number of persons owning over one acre is said to be not more than 250,000. This is concentration with a vengeance, and goes to explain popular dissatisfaction with the land system. C. Turnor, of Lincolnshire, author of a recent book on "Land Problems," which has caused considerable discussion in England, believes that land reform will have to come in a few years, and that the development of small holdings lies at the root of such reform. True to his convictions, he has announced an auction sale of his estate of 4,000 acres.

Rural Canada is strewn with neglected opportunities. Crops which might be grown with large profit are ignored, or produced under small acreage, on account of the excuse that they make too much work. This point is very much overwrought. In determining what lines of agriculture to engage in, the question should be, not what crop will make the least work, but what will repay the most ample wages for the labor that is employed? The answer, of course, will vary with conditions and circumstances, but, taking the representative average farm, a studious farmer of our acquaintance contends it is within the mark to say that one-tenth of the arable acreage should be in alfalfa, one-sixth to one-fifth in corn, and one-quarter to one-third in clover. These crops make work, but they make the money that liberally rewards the work. If one of these estimates is decidedly too low, it is the estimate allowed for alfalfa. Remember that alfalfa and clover increase the capital or producing value of the land.

Training Agricultural Teachers.

A professor in a leading American College of Agriculture stated to one of the editors of "The Farmer's Advocate" that he had come to realize a serious handicap in his work through the lack of a more thorough preliminary education. A young man of good, resolute parts, well versed in the technical knowledge of his department and its practical bearings, he was not likely to rest content under such limitations, but would resort to special means of self-improvement, in order to improve his vocabulary, his art of expression and methods of teaching. When we remember the large number of colleges and schools of agriculture that have had to be manned with experts in recent years, it is not a matter of surprise that very many find themselves in a similar predicament. To have knowledge is one thing; to possess the quickening genius of education, quite another. Knowledge is power when it means an endowment of faculties equipped for service. To teach effectually, in the true sense of the word, is one of the greatest of all vocational achievements, and few there be that find its talisman. Schools and colleges of agriculture will increase in numbers. More agricultural teachers will be required, and more teachers equipped with knowledge of agriculture and rural life for the elementary and secondary schools, which include the High Schools. How are they to be trained for the work of teaching? The inadequacy of the Normal School courses in Ontario to properly equip teachers for the rural public schools is confessed by the giving of supplementary courses at the Agricultural College, Guelph. But for the local exigencies of politics, a Normal School, in conjunction with that institution, might have proved a valuable and unique agency in the teacher-training outfit of the Province. Fourth-year graduates of the college are drafted directly into the position of County Representatives of the Provincial Department of Agriculture, and a part of their work is to organize and teach agricultural classes in the local High Schools. They have, no doubt, found greater and more immediate encouragement with other lines of work, such as special short courses, judging schools, orchard meetings, demonstration work, school-garden competitions, the organization of farmers' clubs, and the Corn-growers' Association, but the other branch of work is steadily kept in view as a Departmental policy, we believe. Judged by the remarkable progress of public and private agricultural schools, and the growth of agricultural classes in regular High Schools across the line, an increasing demand for teachers trained in the pedagogic use of agricultural knowledge may be expected. The outcome of the work of the Royal Commission, under Dr. Robertson, on Technical Education and Industrial Training, will give added stimulus to that type of teaching.

Agriculture is both a science and an art—inseparably so—and there is a science of farming itself distinct from the group of natural sciences, such as botany, entomology and chemistry, that relate to it. There would, therefore, seem good reason to make effective provision for pedagogy, say as an elective subject, in connection with the four-years' course of agricultural colleges. Since teaching involves not only knowledge of subjects, but of the personality of those taught, and a bringing of the two together, such training would undoubtedly be a source of great strength to the graduates of those institutions, in whatever capacity, public or private, they might be called to serve.

In the Dairyman's Interest.

A Western Ontario creameryman and dairy farmer of long experience, looking at the subject from that dual standpoint, has no hesitation in expressing to "The Farmer's Advocate" his strong approbation of the reciprocity arrangement. The vastly-increased demand will prove stimulative to the trade in dairy products, and, in his judgment, tend to a levelling up of prices. The recent shading down of American prices for butter and eggs is conceded to be the result of speculative dealings in these products forcing them to a point above legitimate values. The New York Produce Review and American Creamery reaches the following conclusion: "It is very doubtful that the movement of dairy or poultry products in either direction under free trade would be sufficient to do more than equalize reasonable differences, being to that extent a distinct advantage, and without seriously affecting productive interests." It is a well-known fact that, notwithstanding the tremendous organized efforts, both by Governments and private individuals, in Europe, America, and the Antipodes, production is not keeping pace with the increasing demand for milk and its products, as has often been predicted in years gone by. One need only consider the economy of milk as a food, the teaching of modern medical science in support of its more general use, and the enormous growth of urban population, daily crying out for milk and cream and butter, to understand how difficult it is, with a highly-organized and skill-demanding industry like dairying, to keep up a sufficient supply. If markets could be restricted to one or two milk products, and be kept by "The Trade" in certain limited channels, it might be possible to corner prices down a notch or two sometimes; but, with lessened tariff restrictions, this becomes more and more difficult. One might suppose that, with the characteristic enterprise of United States dairy-men, they would keep pace with, if not overdo, the industry; but not so. A recent study of the situation in New York State, where so many conditions favor dairy cattle, proved that, even with greatly advanced prices, the requisite dairy cows are not forthcoming. In Ontario we have a similar state of affairs, and reciprocity will probably send buyers abroad in this Province to recruit the big dairy herds of the Empire State, and add emphasis to the counsel given in these columns, to make more of a specialty of raising dairy heifers. A decided impetus to the butter business may be looked for as one of the sequences of reciprocity.

The inability of United States dairymen to keep up sufficient supplies of butter, even at enhanced prices, led to the reduction of their tariff on cream, which is estimated as having gone across the border to the amount of some \$8,000,000 worth for the year ending March 31st, 1911, thus constituting a raw material for the American creameries. It was a necessary and sagacious move, and could only have been checkmated by imposing a heavy export Canadian duty on cream, which nobody in this country seriously thought of proposing. Other things being equal, and butter now being on the free list, it will be decidedly better to have that cream converted into butter in Canadian factories already equipped for the purpose, retaining, also, the manufacture of boxes and other dairy supplies. Last year's prices for cheese were not altogether satisfactory to our factory patrons, and to this branch of the industry, access to the near-by big American trade, where the superiority of Canadian cheese will doubtless make a place for itself, as it has in

THE FARMER'S ADVOCATE

AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL
IN THE DOMINION.

PUBLISHED WEEKLY BY
THE WILLIAM WELD COMPANY (LIMITED).

JOHN WELD, MANAGER.

Agents for "The Farmer's Advocate and Home Journal,"
Winnipeg, Man.

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the British market, will assuredly have a wholesome effect. Canada has a great deal now at stake in the dairy industry, and when the increased cost of cows, feed and labor are considered, all tending to advance the outlay of production, it would surely prove a boon to permit those engaged in the business to enjoy the privilege of selling in an additional market.

Good Wages and Yearly Employment.

Emphasizing the desirability of Western farmers employing help the year round, a correspondent styling himself "A. M. McClure," writes in "The Farmer's Advocate and Home Journal," of Winnipeg, holding up as an example a certain Eastern farmer. He says, in part:

"I had a letter to-day from a friend of mine in the East—one of the younger generation of Ontario Farmers, and a son of a particular friend of mine. He says he has hired a man for the year at \$300. Now, this looks like big wages for hired help, when board and washing are considered. In fact, when I served my country in the capacity of hired man, wages were more like half that sum, or even less. I have known tolerably strong and sensible chaps to put in seven months in the summer, when farm work was more laborious than it is at present, at \$100 or less, and if a man got over \$20 a month, he was thought to be something of a marvel.

"The strange thing about this young friend's letter is that he says it pays him to keep this man at these seemingly high wages. He fed a bunch of steers, but they were sold in January. Since then, time has been put in painting sleighs, oiling and repairing harness, overhauling machinery, and attending to the hundred and one odd things that have to be attended to on an Ontario farm, as well as those things that help the hustle of spring seeding. Just think, wages at the rate of \$300 a year, and good board, to a man for putting in time at such work! And yet it pays him. He keeps books, and knows what he is talking about, for he had the same man last year at about the same pay."

Farming and Teaching Tablets.

Gathered from Garland A. Bricker's new book on Teaching Agriculture:

"Inadequate methods of agriculture are fundamentally wasteful."
"The farm is to be idealized as a mode of social life."

"Of what use is the best capacity to make a living without a corresponding power to make life worth while?"

"The ardent curiosity of youth is nowhere more alert than in the realm of nature."
"What is wanted in our High Schools is not elementary agriculture, but elemental, fundamental agriculture."

"Until we recognize agriculture as both a science and an art, we shall go amiss in developing methods for its instruction."

"Agriculture is the basic industry of human life."

"The demand that will bring the schools nearer to the life of the people is insistent, and no one will deny its justification."

"If agricultural education simply encourages the youth to regard scientific and economical methods of husbandry as a means of increasing his own material prosperity, it will fall short of its possibilities."

"Agricultural teaching is nature study which articulates with the affairs of real men in real life."

"Knowledge is necessary to a just appreciation of other people and their professions and mode of life."

"Through contact with an agricultural course, a city-born boy may develop the instinct to get back to nature, and become a successful farmer, whereas he might otherwise have become a petty-fogging lawyer or a quack doctor."

"The principles of the science and the art of agriculture may be as truly educative as any of the regular High-school courses."

"We protest against the proposal to tack the science and practice of agriculture to the various sciences of the High School as a sort of appendage."

"Teaching agriculture is more than teaching a conglomeration of physical and biological sciences."

"The nature of the learner is the fundamental consideration in the method of teaching."

"In agriculture, the first articles to be selected for study are those with which the average pupil is most familiar."

"The object of agriculture in the High School is not to produce professional agriculturists, but to teach the scientific principles involved in agriculture as part of general culture."

"In teaching agriculture, the economic approach and sanction appeal to a very strong instinct in the youth, but must not stop there."

"Information is useful in making the activities of the individual more intelligent."

"The function of a book is to express to other minds, in terms of printed language, the information which a mind has acquired by contact with the original subject itself."

"The mind of the learner must be brought in contact with the real thing. It is not sufficient for a pupil to be told a thing; he must experience it."

"Information, ability to do, and good habits, are the primary elements in the educational programme that leads to efficient service."

"Bushels of happiness" are about as essential as bushels of wheat."

"Ideals are the silken threads of consistency upon which the golden acts of our lives are strung."

"Too many men make the mistake of thinking that one or two trials are conclusive proof."

"Unless the ability to do is acquired by individuals before the age of adolescence is entirely past, the world will never, except in rare cases, secure marked service from them."

"Habits are the crystallization of mental and physical experience by repetition."

"Carving a turkey at a social dinner may be as essential to a young man as manipulating a plow."

"By gaining knowledge of agriculture and experience related to this great art of food production, the pupil gradually acquires a sympathetic attitude to it and to those engaged in its pursuit."

"In studying life and the conditions of growth, the adolescent secures a conception of his relation to his and nature's God."

Advertisers Should Give County.

May I make a suggestion to advertisers in "The Farmer's Advocate"? Many of them give only post-office address, and in many cases said post office or station may be anywhere between Windsor and Ottawa, as far as the average reader knows. If they would give the county, as well as post office, it would add to the value of the advertisement.

A. L. MacKINNON.

Note.—Good suggestion. Some advertisers, in sending copy, omit even their Province. This

publication circulates far beyond the Province within which it is published. Patrons do well to bear this in mind.—Editor.]

Britisher Wants Broom Bread.

(Our English correspondence.)

The supply of bread made from whole meal for the villagers on the estate of Sir Oswald Mosley has aroused an interest which can only be fittingly described as national. The matter has been vigorously discussed by the press, and it really looks as if we were at the beginning of a new era in bread-making. Everywhere the consumers are discarding the white loaf for a whole-meal loaf, and a number of prominent physicians have issued a manifesto recommending what is termed "standard" bread. Such bread is described as made from unadulterated wheat flour, containing at least 80 per cent. of the whole wheat, including the germ and semolina. Standard bread is said to contain almost four times as much of both phosphoric acid and iron as bread made from fine white flour.

One prominent doctor says that better teeth, stronger bones, steadier nerves, and greater immunity from disease will be found in the next generation if whole-meal bread is used in place of the usual white loaf. There is a large demand for "standard" flour and "standard" bread from every section of the community, and millers and bakers are providing the required flour or loaves. Liverpool is our greatest milling center, and the millers report a big demand for the new "standard" flour. One prominent miller states that, if the public desire brown bread, the mills can readily be adapted to secure the supply.

This demand for a bread with a higher nitrogenous content, and less of starchy matter, will tell largely in favor of the rich Manitoba and Russian grains, and against the starchy South American and Australian wheat. Scientific opinion, upon the whole, seems in favor of the "standard" bread as being more nutritious. White bread seems to be better absorbed by the digestive system, but it is so refined that there is a lack of stimulus to the intestinal tract, and constipation frequently follows. It is claimed that the "standard" bread provides a mild stimulant, and is less clogging and starchy. The day of the extremely white loaf seems to be passing in Britain.

F. DEWHIRST.

The Sun Will Still Shine.

Editor "The Farmer's Advocate":

I am glad to see the stand you take upon the question of reciprocity, and I feel sure that the reasonableness of your arguments will commend itself to the great majority of Canadian farmers. We hear a great deal of hysterical outcry against reciprocity, but it has not the ring of sincerity. The very fact that the press is being flooded with advertising matter against reciprocity, and that, according to the testimony of an editor in the Eastern part of our Province, newspapers are being offered double the ordinary advertising rates if they will insert anti-reciprocity articles, without marking them as advertisements—this at once excites our suspicion that the real reasons at the back of the campaign are most wisely left unexpressed. The vested interests are fighting, tooth and nail, to prevent any withdrawal of the special privileges which they have been enjoying under protection, and we see exemplified in a most emphatic way the truth of Lord Rosebery's indictment. Here is his statement: "Under the baneful shadow of protection there grows up every form of interest and almost every species of corruption. You may, after a little trial of protection, wish to retrace your steps, and go back on the path on which you have entered. You cannot. The moment you try it, a hundred giants spring up behind you to bar your path—giants, or trade interests that have become giants under protection, and which are determined that by no means shall you ever be allowed to return to the free air of free trade. Why? The reason is obvious. Under protection, every protected trade becomes a vested interest, and defends itself by the methods which are known to vested interests. If they are threatened, they combine in trusts. They fight every election, political or municipal. They haunt the lobbies of our Parliament, and corrupt our legislators."

Have we not seen the truth of this indictment realized time and again in the recent history of Canada and the United States? A protective tariff establishes a condition in which the various industries depend upon legislative favors, and no condition could be more encouraging to all sorts of political corruption. And now, when the reciprocity agreement threatens the downfall of protection, "the interests" are pouring out money like water, in what is, I hope, a vain attempt to block the movement for freer trade. Reciprocal free trade between Canada and the United States has every reason of common sense in its favor, and rural Ontario, which, during the last twenty years, has suffered depopulation to the extent of almost a hundred thousand, in order to build up great cities wherein are bred millionaires and

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paupers, will not be fulfilling its obligations if it does not do all in its power to secure the ratification of the proposed agreement.

Without going into any detailed discussion of the case, it may be remarked that the bringing forward of innumerable objections to the reciprocity agreement, some absurd, and others mutually contradictory or inconsistent, leaves one quite ready to infer that the real objection is not mentioned, and that it will, moreover, not bear much exposure to daylight. Prophecies of the immediate and irreparable ruin of practically every industry in both countries have, in some quarter or other, been made; and if the arguments advanced in support of such prophecies are not characterized by extreme lucidity, the deficiency is, apparently, made good by warmth and color of language.

It is to be hoped that we shall be permitted to at least try the new agreement, and see how it works. If, as certain parties predict, it is a huge mistake, and will ruin our country, we shall probably find it out in time to rectify our error; and if, on the other hand, it will be a good thing for us, the sooner we get it, the better. In the past we have survived, and even prospered in a measure, under virtual exclusion from the markets of the United States; and it is more than possible that the sun will still shine when those markets are once more open to us.

Brant Co., Ont.

W. C. GOOD.

Huron County Appropriation.

We all like "The Farmer's Advocate" as a weekly visitor, with its good reading from cover to cover. It is losing no ground, but gaining popularity with its readers. We like its sentiments on the reciprocity question, and hope the great leaders of our country will not be bluffed by the big opposition arguments in some of the papers against free trade with the United States. It is what farmers and consumers have been wanting and waiting for for many years. We are relying low and watching results, but are determined to stay with it. It has come to the time when farmers are considering their own interests ahead of partyism. We like "The Farmer's Advocate" because it is the farmer's friend in a great many ways. We are pleased to note some valuable points on fruit-growing, and this is the season of the year we need instruction on the culture of all kinds of fruit and vegetables, corn, tobacco and beans, as this part of the country is well adapted for these, as well as grain and stock raising.

SUBSCRIBER.

Huron Co., Ont.

Agricultural Banks for Britain.

The British Government scheme for some form of agricultural bank is making progress. Some time ago, Lord Carrington promised that action would be taken in the matter, and recently he has been conferring with leading bankers, whose advice and co-operation are needed.

The Board of Agriculture seems favorable to some plan to be worked through the great joint-stock banks, which would do away with the need of any central bank.

The suggested plan is for banks to lend to local credit or co-operative societies, and these societies would pass on the money to individual farmers.

Co-operative action has made capital progress in the last two years, and already one large joint-stock bank is lending money liberally on co-operative security.

HORSES.

The Shire Horse.

Up to the middle of last century, the Shire stallion was, generally speaking, a ponderous animal, weighing up to 2,300 pounds, and often had but very little action. About thirty-five years ago, however, activity became an important requisite, and from that time until now special attention has been paid to the legs and feet, whilst at the same time the general formation of the animal has also received greater care. Thus it will be seen that at the present time the Shire horse has not only better legs and feet, but that he stands much more correctly on them than formerly.

It is now universally acknowledged that, to have good action, it is necessary to have the hind legs well under the horse, with hocks fairly close together; it is found to be much easier to get these perfections in the smaller animal than in the larger one, so that breeders are usually apt to put quality before quantity. At the present time, however, it is generally acknowledged that the real commercial value of the Shire horse is his weight, power of resistance, and also ability to move dead weights. It is well known that only weight can move weight, consequently the aim and requirement of the present day is to have a horse not under 17 hands, to weigh not less than 1,500 cwt. when he is at full growth, with

proper legs and feet, and showing a good quantity of silky hair, with all the quality that can be had consistent with the before-mentioned requirements.

The value of Shire stallions and mares has enormously increased in the last twenty-five years. It was formerly a very rare occurrence for a stallion to sell for more than £100, and it was not until after the formation of the studbook that prices began to increase. Since that time, it has not been a very uncommon thing for stallions to make up to 2,000 guineas, and mares up to 1,000 guineas. This is due, to a very great extent, to the fact that registration enables breeders to know which line of blood produces the soundest and best animals. It is only by these means that breeders are enabled to ascertain with any degree of certainty which animals will likely reproduce themselves. We may confidently expect that, as the breeders of Shire horses have now agreed as to what the type of the Shire should be, the improvement which has taken place in the breed in the last twenty-five years will be as nothing to what will be seen in years to come. Thirty years ago, it would not have been believed that such perfection and early maturity as is seen in animals now exhibited could have been arrived at in the time.

The agricultural shows of England, especially the Shire Horse Society, held in London each year during the months of February or March; and the Royal and County Shows, have had a great influence on the advancement of the Shire horse, but perhaps nothing has done more in this direction than the Foal Shows held in different parts of the country. Noticing what poor use tenant-farmers were making of the breeding capacities of their mares, which in many cases were noticed to be exceptionally good breeders, and as many of the best Shire horses were, and had been for a considerable time, bred by small farmers, these foal shows were started in the autumn months each year, and by this means many foals have been sold by small tenant-farmers at from 50 to 200 guineas each.

It will be generally admitted that the most successful blood of all has been that of Lister's Lincoln (1245), sire of the noted Lincolnshire Lad (1196). It is curious to relate that, when Lincolnshire Lad was travelling in Lincolnshire, the celebrated Scotsman, Lawrence Drew, was there buying mares to mate with his famous Clydesdale horse, Prince of Wales (673), in order to breed Clydesdales of a type which he believed to be the best. He was taken with Lincolnshire Lad, and, having bought him, he sent him into Derbyshire, where he became the sire of many celebrated animals, but the most important of his sons was Lincolnshire Lad II, the chief of whose sons was that wonderful horse, Harold (3703), which was one of the grandest and most impressive sires of the breed in his day.

Harold (3703) was the London champion horse in 1887, and the sire of Rokeby Harold (15313), champion at the London show in 1893, the only yearling colt up to that date to win the championship. He was again champion in 1895 and 1896; and Markeaton Royal Harold (15225), another descendant, was champion in 1897. This wonderful horse, Harold, was the sire, between 1893 and 1900, of more winners in stallions and mares than any others. Perhaps his best son was Lord Middleton's Menestrel (14180).

Another horse of great quality was William the Conqueror. In one year he was the sire of Lord Wantage's Prince William (3956) and Lord Rosedale's Hitchin Conqueror (4458), two of the most successful and impressive stallions of the breed. Hitchin Conqueror is said to have been the sire of more sound progeny than any other horse of his time.

Driving.

Judging from what one can glean from casual observation, very little attention is paid in rural districts, to the manner in which horses are driven. In fact, the subject is treated as one upon which no instruction is necessary, or one about

which there is little, if anything, to learn.

Young people of the farm just take to it, as they take to many other everyday things that must necessarily be done, with practically no instruction from anybody. That they get along in some sort of a way, there is no doubt, as they manage to do their work and get about.

This would lead one to inquire if there is anything much in driving, or whether it is a subject worth studying and cultivating a knowledge of.

As a matter of fact, there is a good deal to learn about it, and the difference between a slipshod driver and an expert one is immeasurable.

One has only to take an opportunity of observing the difference in the performance of the

same horse when driven by an uncultivated driver and then by an expert one, to realize that there is much to learn about driving.

This is pretty generally recognized when the object is to bring out the speed of a horse; but when style and action are aimed at, the expert driver can cause a perfect transformation of an animal, when compared with a performance given by an unskilled one.

There is undoubtedly such a thing as an aptitude for driving. Some persons could never become really skillful drivers, no matter how much they cultivate it, as they are temperamentally unfitted for high-class work of this kind. They might become fairly good drivers, but never experts. There is something about the nervous organization of some individuals that gives them a delicacy of touch, or what is called "good hands," as applied to drivers, that confer upon them a special aptitude for expertness in driving.

It can be explained in the same way that some people are light on their feet, and can readily become easy and graceful dancers. They may be heavily built, and show no evidence from their make-up of the likelihood of their being light-



A Champion Shire Stallion.

footed; but they are, and such an attribute can only be explained by referring it to the nervous organization of the individual.

Analogies of this sort could still be further given, but we are not so much concerned in explaining the causes of certain aptitudes as we are in endeavoring to point out some of the common faults in driving.

The differences between good and bad driving are not so apparent in the handling of work horses as in those used for faster work, but even in them faulty handling shows itself.

The slipshod driver is very much in evidence behind work horses. You see them driving a pair with one horse ahead of the other; he is simply holding the reins, not driving at all. He makes no attempt to keep the draft of both horses even; he does not feel their mouths, keep them collected and balanced.

Whether a horse is pulling a load or going beyond a "fool-space," he should be kept "collected," as he does his work more comfortably, and does not fatigue so easily.

A horse is "collected" when his head is kept in position, and all the muscles of his body are in a state of contraction. When a man is running or walking fast, he closes his hands by contracting the muscles of the arms and hands, in order to keep himself collected. If he did not do so, propulsion would cause him greater effort. So with the horse, if he is exerting himself either in travelling or in pulling a heavy load, light but steady pressure on the bit assists him in keeping collected and balanced.

Loose-rein drivers never improve a horse's mouth; they encourage bad carriage of the head and neck, and are apt to spoil his gait by getting him into the habit of "hitching."

By keeping a horse collected and balanced, the fore legs are not so apt to suffer from the ill-effects of concussion and strain.

If the head is kept up and nose in, in travelling, the fore legs are relieved to some extent, as more weight is then thrown on the hind extremities. Heavy-handed drivers also inflict much injury on a horse, and cause him much discomfort. They are apt to make his mouth sore, get him into bad habits in connection with that organ, such as side-lining, pulling, tongue lolling, etc., and cause him to mix his gaits.

The driver's aim should be to manipulate the reins with a light, but firm and steady hand.

It is usually necessary to exert more force in manipulating the reins in speeding a horse, in order to steady him, but injury to the mouth can usually be avoided by using an easy and comfortable bit.

The skillful driver is always careful to observe if the bit is in the proper position in the mouth of the horse he is driving. If it is too low, he will not force it firmly, and he is apt to get his tongue over it. If it is too high, he will not readily respond to the pressure of it, and consequently he is apt to pull, cross his jaws, open his mouth, and project his tongue.

Placing a bit too high in the mouth is a very fertile cause of getting a horse into bad habits in connection with the mouth, and is apt to spoil the carriage of his head and neck.

The manner of holding the reins and whip, and the posture of the driver, are of much moment in skillful driving.

It has been found out by experience and study of the art of driving that the reins should be held in a certain way in order to contribute to the ease, grace, safety and dexterity of the driver.

Some drivers, who have not been taught this way of driving in their youth, find it hard to adopt it in late life, and scoff at the idea of there being a "best way." "As they get along very well in the way they picked up themselves," but they never make finished drivers. There is a great deal of difference between the manner of holding the reins when driving trotters and ordinary driving, especially when curb bits are used and style is sought for.

In the former case, the driver assumes an attitude and holds the reins in a manner so that he can exert all his force in controlling and steadying. He braces himself, with legs stretched forward and arms extended, with a rein running over the palm of either hand, and grasped firmly with the fingers, with the straight whip carried in the right hand.

In ordinary driving, especially when a curb-bit is used, the reins should be separated with the first two fingers of the left hand, the ends passing out of the lower part of it. The thumb should be held with the point upwards, not pressing down firmly upon the reins. The wrist should be bent, so that the knuckles are turned towards the waist, and the elbow is bent at the left side. The hand should be held at a height approximately opposite the waistband.

The right hand holds the whip, at about ten inches from the end, the lash-end of it is directed upwards, forwards, and towards the left. Nothing looks more unworkmanlike than grasping the whip at or near the extreme end.

The left hand should always be kept in the same position; but the right one, besides holding the whip, should be used to assist the left.

The lower part of the right hand may rest upon the off-rein, in front of the left, to assist in steadying the tension of the reins, also in turning or guiding it may be used on either. If the left hand requires aid in exerting traction, the right placed in front, and dividing the reins by the two middle fingers, may assist it; and also, in shortening the reins, the right hand pushes them back between the fingers of the left.

The near rein is always held uppermost, passing over the index finger of the left hand, while the off-rein passes between the second and third fingers.

The position of the driver should be easy and unconstrained, but approximately erect, with arms dropping along the sides, and elbows squared at the waist. The legs, from the knees downwards, should slant slightly backwards, and the driver should not sit too far back in his seat.—(Dr. F. C. Grenside, in the O. A. C. Review.)

New England Horse Market.

Rather striking support of the view that it is better for the average net interest of producer and consumer to have horses exchanged freely between contiguous territories than to enforce expensive long-distance transportation by means of opposing tariff barriers, is furnished by the interview with Geo. Climie, one of the largest horse-dealers of Montreal, published on the market page of "The Farmer's Advocate" last week. Mr. Climie is of the opinion that reciprocity will not reduce prices of horses to the producer, but may cheapen them to the user. The horse-raiser will be benefited, he thinks, by the opening up of wider markets and additional opportunities all round. While anticipating that Montreal dealers may lose a little of the far Western trade, he confidently expects they would do a large business with the States of New York, Maine, New Hampshire and Vermont.

Confirmation of this view is furnished by a perusal of quotations in Eastern cities. Through the kindness of Prof. McLean, recently of "The Farmer's Advocate" staff, now of Massachusetts, we have been supplied with these figures, from a recent issue of the American Cultivator, an old and usually reliable agricultural journal, published in Boston. On February 25th, 1911, they quote their Boston horse market as follows (we have condensed this a little): "Horses weighing from 1,650 to 1,800, \$300 to \$400; those having extra weight and quality, \$400 to \$425. Medium-weight horses, \$225 to \$300; expressers and general delivery, \$135 to \$225; chunks, \$100 and up, according to quality and size.

February 12th, 1909.—Horses from 1,650 to 1,900 pounds, were quoted at \$325 to \$450; medium-weight horses, \$280 to \$325; expressers and general-purpose, \$150 to \$225; first-class drivers, \$300 to \$700.

September 5th, 1908.—Horses from 1,500 and up, \$225 to \$375; those having extra weight, \$375 to \$450; chunks and expressers, \$200 to \$225; roadsters and drivers, \$300 and up."

Money in Drafters Like These.

Another lot of slashing big, high-quality draft geldings, twenty in number, and ranging in age from five to seven years old, excepting one colt rising three, was shipped from London, Ont., to Vancouver on Wednesday, March 8th. These horses are the kind that are a credit to the Province which produced them, and very profitable to their breeders. They are, without exception, "all horse," put up on approved draft lines from head to croup, and from feet to back. Rough, curly hair and coarseness is conspicuous by its absence throughout the lot. They would range in weight from about 1,650 for the colt, up to 1,800 or thereabouts—possibly a little more. Several of them should tip the beam around the latter figure. They have been picked up in Western Ontario during the past few weeks by Wm. Wallace, whose card has been appearing in "The Farmer's Advocate," and go forward to J. H. Brooks, of Vancouver. They are about as fine a lot of draft geldings as we have ever seen together, and, by the way horses are selling, must have cost a princely price. These are the kind to raise.

A gentleman driving on the street the other day, gave a young man a ride. Asked if he were attending school, the reply was that he was taking a Commercial College course. He explained that he had secured a position in the railway offices, but found out that, in order to advancement, he must have more education, and was allowed off on furlough for six months. "I attended the city Collegiate Institute," he added, "but didn't look at study seriously, simply fooled away the time, and now I have found out what a mistake I made." Nowadays, the business of either country or town calls for something more than uneducated or half-educated boys.

LIVE STOCK.

Feed Our Cattle at Home.

A staunch believer in the policy of finishing Canadian cattle in Canada, thus retaining the fertility to enrich our farms, instead of exporting lean cattle and feed to enrich the farms of British feeders, is William Weir, of Weir & Weir, cattle-feeders, of Perth Co., Ont.

Messrs. Weir make a business of buying feeding cattle and grazing them on their old pastures. Last December they shipped to their agents, Paull, Duff & Ferguson, of Glasgow, Scotland, 49 head of cattle, of which 32 were extra fine, and they think about the best, as to quality, which they ever fed. They were shipped so as to reach Glasgow in time for the Christmas market of December, 1910; and, on their arrival there, their agent thought they were good enough to go into the show, which was then being held, and compete for the prizes offered, which they did, with the following results: For the four best Canadian bullocks, first prize; one of these four was held as reserve champion of the show. For the best Canadian bullock, not shown in any other class, first prize. For the best butchers' bullock, first prize.

These cattle were purchased in Kent County, at around \$48 to \$50 apiece, and, when sold, some of them realized over \$100 a head. As to age, they were long two-year-olds, and short threes. Mr. Weir states that the old upland pasture, which is well manured from previous feeding, carried somewhere about a steer to an acre, the pasture producing 350 pounds of beef to the acre. After being grazed for the summer, the cattle were stable-fed a month, in order to hold them over until time to ship; it also hardened them up. Mr. Weir considers that the farmers from whom he buys lean cattle and feed make a great mistake in selling. They should feed the stock on their own farms. He considers that he has observed that grain purchased and fed on his farm has returned him half the value in the manure produced. He looks upon the British embargo as being a blessing in disguise to Canadian agriculture.

Breeding Tuberculosis.

Discussing the subject of tuberculosis, in a letter to the Scottish Farmer, Dr. Wm. Watson, of Glasgow, publishes this paragraph: "No one could argue that the housing of all young animals in unhealthy byres is sound. No one could argue that the present method of producing milk in byres where the animals are heated by their own exhalations is sound. Men have demonstrated time and again that airy, covered sheds, where the climate forbids keeping young animals out all winter is better and healthier than the present system. Recently, it has been shown that cold, thoroughly well-ventilated byres for milk stock do not decrease the flow of milk, and yet we have milk produced where the atmosphere acts as an irritant to the eyes and noses of persons entering the byres. Keeping cows that are unhealthily housed and overfed for the sake of a big milk supply, beyond a safe age, and rearing calves from them, is another source of danger. Bang has told us his system of eradicating tuberculosis, but it does not commend itself, on account of the extra work and worry, not to speak of the expense in following it out. There is also overlooked in it the danger of raising animals from a tubercular strain, and he has not given us the life-history of the apparently healthy calves after they were subjected to the lowering conditions of pregnancy, and the lowering conditions of intensive dairying. This, I think, is a fatal omission."

British Live-stock Exports.

In spite of the embargo against certain British live stock last year, exports for 1910 were over ten per cent. greater than in 1909. The value reached a total of £1,536,712. Horses were in good demand. Not only were more sent out, but the declared value increased by 20 per cent. Belgium and Holland took by far the most, but these were old and decrepit, and of low value.

Before the closing of the Argentine ports, we shipped as many head of cattle as for the entire year 1909, so 1910 would have been an unusually good year but for the embargo, which closed the ports for half the year. The Canadian demand was smaller last year, only 212 being sent, against 223 in 1909.

Sheep were exported in large numbers, 7,839 head, against 7,418 in 1909, but the value was much lower—in fact, the lowest for years. Argentina took the highest-price sheep, except certain small shipments to New Zealand. Your breeders bought 3,811 head, at an average of £5 8s.

Pigs exported increased 14 per cent. in numbers, and the declared value was higher than the average of the last sixteen years—a gratifying fact for pig-breeders. In all, 851 pigs were exported, of an average value of £10 12s.

F. DEWHIRST.

THE FARM.

The Soil and the Seed.

Editor "The Farmer's Advocate":

Soils and crops are inseparable. Crop yields are determined by the amount and availability of the plant food in the soil as much as they are influenced by the character and quality of the seed sown. The maintenance of fertility, the preserving of good physical conditions, the conservation of soil moisture, and the use of high-quality seed, are factors of prime importance in the production of any grain crop.

All cereals are soil exhausters; all legumes are soil enrichers. Therefore, in any permanent system of successful cropping, the culture of clovers and closely-allied species must have a place. The frequent growing of these crops will maintain the productive capacity of our soils so far as the most expensive element of plant food—nitrogen—is concerned. As for the other elements most likely to be present in the soil in limited quantities, the feeding of all roughage and concentrates, and the return to the land, without needless loss, of the manure thus produced, is, perhaps, the most effective system at present practicable on all farms except those where the most intensive systems of cropping are followed.

The time to begin the preparation of land for the sowing of small grains is the preceding fall. With but few exceptions, fall plowing has proven better than spring plowing. Fall plowing prevents the seeding of weeds, makes conditions more favorable for the absorption and retention of rainfall and snowfall, holds injurious insects in check, equalizes farm labor, facilitates the pulverizing action of frost, and enables the land to be seeded much earlier in spring.

For all small grains, excepting peas, the land should be cultivated in the spring as early as it can be worked without injuring its mechanical condition. The amount of cultivation depends wholly upon the land and the season. Deep cultivation is generally preferable to shallow, providing sufficient top-working is given to firm the lower layers of the seed-bed sufficiently to facilitate the rise of moisture by capillarity.

If the area to be seeded is so large that the land cannot be sown as rapidly as the ground becomes fit, it is good practice to harrow it. Harrowing breaks up the crust and forms a dust blanket for the retention of soil moisture. This point, which is of such great practical value, is generally overlooked because so few realize the immense amount of water required to bring grain crops to maturity. For every ton of dry matter produced, wheat requires 350 tons of water; oats, 375 tons; and corn, when the amount lost in evaporation is included, requires 570 tons for every ton of air-dried fodder. The average rainfall during the growing period is, therefore, inadequate to meet the needs of the crops, hence the necessity of conserving, by early surface cultivation, the soil water resulting from fall rains and winter snows.

Failure to get and retain a satisfactory stand of grasses and clovers is frequently attributed to a lack of fertility, whereas, in many cases, the loss is directly attributable to an insufficient supply of soil moisture. In such cases, moisture, not fertility, is the limiting factor in crop production.

Results obtained at many experiment stations, and on thousands of Ontario farms, where comparative tests have been conducted by members of the Experimental Union, have emphasized the importance of growing only those varieties which have demonstrated their ability to meet the requirements of local conditions. The variety or strain, as well as the class of crop, is fundamental, and cannot safely be ignored.

Prof. C. A. Zavitz, after over twenty years' careful experimental work with a number of varieties of barley and oats, without change of seed, has proven that, under Guelph conditions, these grains have not only not deteriorated, but have actually increased materially in yield. Several of the leading varieties now under test at Ste. Anne came from this stock. We have acted on the principle that grains, grown under reasonably favorable conditions, if properly screened and fanned, will not run out.

Experiments at Ste. Anne have demonstrated that all small grains, with the exception of the field pea, should be seeded in the spring as early as the ground can be worked to advantage. In conducting this experiment, five seedings were made with each class of grain, and, as the seedings were one week apart, the fifth seeding was made four weeks after the first. The results of four years' work are striking and suggestive. Spring wheat, seeded as early as the ground could be worked, without injuring its physical condition, averaged 38.12 bushels per acre, while that seeded four weeks later averaged 19.63 bushels, a decrease of 18.49 bushels per acre, due wholly to the time of seeding. The falling off in quality was likewise very apparent. The other grains showed the same tendency, although not so pronounced, oats showing a decrease of 14.13 bushels, and barley 3.77 bushels per acre.

All classes of grains experimented with showed a gradual decrease in yield as the time of seeding was delayed, except barley and peas. To illustrate: The first seeding of wheat gave an average of 38.12 bushels, the second 29.69 bushels, the third 29.58 bushels, the fourth 25.93 bushels, and the fifth 19.63 bushels—a strong argument in favor of early seeding.

On land in good tilth, and in a good state of fertility, two bushels of wheat per acre has proved most profitable. The same rate has proven best with six-rowed barley. Results obtained with oats, based upon four years' work, with duplicate tests, would indicate the advisability of sowing slightly more than two bushels per acre.

Large, plump seeds have given, on an average, a higher yield than the same number of medium or small-sized grains. While this is true, it does not necessarily follow that, because a man sows only the largest and best-developed kernels, that he can, therefore, afford to sow a less quantity by measure or by weight. A pound of small, plump, graded seed will, because of the larger number of grains it contains, generally give a greater yield than a pound of seed composed of nothing but the largest and best-developed grains.

Grains sown mixed give a larger yield per acre than grains sown singly, providing two high-yielding varieties which ripen at the same time are sown in proper proportions. So far, one and one-half bushels of Mensury barley and one bushel of Daubeney oats has given the most satisfactory returns.

Drilling is to be preferred to broadcasting. The extra yield, however, aside from the case of peas, is, in the average season, and on well-prepared land, not great. Drilling distributes the seed more evenly, and covers it at a more uniform depth. As a result, germination is more prompt and uniform, and a less quantity of seed is required. Weeds are less troublesome on drilled than on broadcast land. Barley and oats, drilled, are much more liable to be injured by smut than when broadcasted.

In dry seasons, grains should be rolled immediately after seeding. Rolling brings the soil in close contact with the seed, thus hastening germination. A light harrow or weeder should follow the roller to re-establish the dust blanket and conserve moisture.

While all grain crops, with the exception of peas, might profitably be seeded down with clover, this practice is by no means general. When grass or clover seeds are not sown with the grain, a stroke or two with a light harrow or weeder after the grain is three or four inches high will prove of great benefit. This is especially true if weeds, such as mustard, are present, as the harrow will destroy myriads of them, without doing serious injury to the crop. The few grain plants which are pulled out will be amply compensated for by the extra tillering induced by the harrowing in those that remain.

Grain-growing is not an exact science. Important as are principles, the prime factor in the entire situation is the grower himself. He must have a first-hand knowledge of his soil, born of a working acquaintance with it. He must be a man who studies the likes and dislikes of his crops. He must know the "how." He must practice what he knows. The necessity of exercising fine judgment in many points, which are all too frequently regarded as of minor importance, must never be overlooked. Here, as elsewhere, applied knowledge of detail counts. L. S. KLINCK.

Macdonald College.

Soil-moisture Control and Short Rotations.

Editor "The Farmer's Advocate":

The questions you raise for discussion are most timely, and concern matters a proper consideration of which, and the careful application of available information, would certainly work a revolution in Canadian agriculture.

In my experience, however, the most difficult part is not the learning how, or knowing when, where and how to do things, but rather the actual doing of them. On the Experimental Farm here, as elsewhere, the actual performance of all operations in the very best way, and exactly the right moment is exceedingly difficult. I am, therefore, quite conscious that it must be very difficult indeed for the average farmer to do everything at the right time and in the right way, according to his best knowledge. However, there is no denying that the only way of keeping the importance of good methods and prompt operation in mind is to discuss the same, and then inculcate their practice.

The farmer's life at certain seasons is a strenuous one, and all the enthusiasm, energy and love of his work, with which it is possible for him to inspire himself are necessary to enable him to stand the strain of the season's operations, and at the same time do better work, do more of it, and, therefore, get better results year by year.

The effects of paying a little more attention to cultural operations, giving a little more care to the selection of seed, being a little more

prompt in the performance of operations, are truly marvellous, especially if with these important points be combined the growing of the right crops, in the right fields, on the right farms. In other words, the following of proper rotations and of a line of farming suited to the district.

As an example, taking the average crops in Ontario at average market prices, it would be quite possible to more than double the value of the crops in this Province in three or four years, were our farmers able to even fairly well comply with the general suggestions given above.

Entering slightly into the detail of the matter, and following to a certain extent the line of discussion suggested, I might say that we have not found any advantage here, in my division, at least, from the changing of seed. I believe, in the case of potatoes, an exception must be made, since the use of seed grown in the East has proven highly advantageous. We have, however, found that certain varieties are much more profitable than others. In our field operations here, no variety of oats has yet been found to surpass the Banner, although many other varieties have been offered and tried. At other farms of our system, however, some new varieties of wheat have been found to be considerably superior to the older varieties, as, for instance, Marquis has proven to be much more prolific and to have other advantages over Red Fife and other varieties grown in the West.

The selection of seed from the varieties commonly grown, paying attention to strength of straw, size of plant, and prolificacy of the same, has shown quite marked results on the farm here. Seed from such selected plants has yielded as much as 20 per cent. more than the average run of seed.

Variety, selection, change of seed, etc., may undoubtedly have some influence upon the average returns, but in my personal experience, according to my observations made throughout Canada, and according to the conclusions I am able to draw from other men's work, the great factor making for increase in crop production or falling off in yield is MOISTURE CONTROL. In other words, the better the cultivation of the soil, the greater are the returns likely to be, since cultivation of the soil means nothing more nor less than the control of soil moisture. Once a good variety of crop grown has been fixed upon, care should, of course, be taken, year by year, to make a fairly good selection of seed therefrom, and to see that same is free from weed seeds and impurities. This being done, the farmer may safely neglect the seed question and devote his energies to the proper cultivation of his soil and to careful consideration of his rotation. To enter into a discussion of cultural methods and crop rotations would probably be inopportune. I cannot refrain, however, from urging upon farmers the importance of following a short rotation, leaving the fields down to hay or pasture but a short time, the growing of no grain crop or hoed crop two years in succession. One year grain at a time is enough, and if one wishes to keep his fields in good physical condition, the growing at short intervals of some hoed or cultivated crop. Our experience here might be summed up in the sentence or statement, "the shorter the rotation, the greater the net profit," however much greater the cost of cultivation and all other expenses, seed included, at the end of the year. The long rotation is the rotation that impoverishes the farm and the farmer; the short rotation, with good cultivation, is the system that enriches the farm and makes happy the farmer.

As indicated above, I am not a faddist on seed, but I must admit that certain precautions are necessary, and that certain points should be observed in the selection of the seed for certain crops. For instance, we have always found it advantageous to buy our corn on the cob, and to test it before buying. We have never had a failure in our corn crop, due in some measure, at least, to the quality of seed employed. Undoubtedly, the best plan is to buy on the cob and shell at home, where any apparently unsound or immature ears can be eliminated in the shelling process. Further, we have found it advantageous to sow a sufficiency of seed when planting corn. It may cost a dollar or so more for seed in the year, but it certainly saves each year many dollars' worth of silage at the harvest time.

It is also, we find, very important to secure good root and clover seeds, and to sow a sufficiency of the same. Light seeding of roots and clovers, as well as grasses, are unsatisfactory. The using of poor seed of clovers and grasses is ruinous. The extra cost is, no doubt, the deterring influence to heavy seeding and the use of the best of seed. Were it possible for the farmer to see and compare the results from the different kinds of seeds and the different amounts of seed, he would appreciate and never forget the truth that I have just stated, that a large supply of first class seed is the secret of success in growing forage crops. When sowing corn in rows, we usually sow considerably over half a bushel per acre. When planting in hills, about 20 pounds of dent and 18 pounds of flint will be found to be sufficient. In sowing turnips, we use from four

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to five pounds seed per acre. In sowing sugar beets and mangels, from eight to twelve pounds, according to the weather and soil conditions. The drier the weather, or the lighter the soil, the more seed. In sowing clover for hay, we use never less than 10 pounds of red clover, 2 of alsike, and from 6 to 12 pounds of timothy, according to whether it is for one or two years' grass or hay. To the average farmer, judging by criticisms I have seen of my remarks in the press, and that I have met with when speaking, these seedings seem ridiculously heavy. Our experience, however, goes to show that they are the quantities which give the greatest net profits, and it is the net profit we should be looking for in all cultural operations, just as in feeding operations. The badly-fed cow probably does not cost much for feed, but she gives mighty small returns in the way of milk. The poorly-seeded field costs less to seed down, but very certainly gives much smaller returns at the harvest.

J. H. GRISDALE,
Dominion Agriculturist.

The Closet on the Farm.

Editor "The Farmer's Advocate":

While the question of the closet or outhouse is one on which delicacy prevents a great deal being said, it is, nevertheless, a vital one, and a careful observer cannot but note the extent of carelessness and negligence in regard to this most important item in the equipment of any well-ordered farmstead.

In many instances the farmer has a comfortable house, and his stables and sheds are ideal in every respect; also, his fences, etc., are in perfect order, while the closet is an eye-sore on the premises, as well as a menace to the health of any who may be compelled to use it. The stables which contain the stock, and even the sheds which house the farm implements, are warm and carefully boarded, in order to protect their contents from the weather; while the closet, which must be used every day by the members of the family, is too frequently a ramshackle affair which is little better than no shelter at all.

Generally, it is also in a most exposed position, often minus a door or several boards from the framework; a lop-sided contrivance, with a roof hanging by one corner; while through the cracks, snow, rain, wind and sleet, alike, are whirled mercilessly upon anyone who may be within. If the farmer would stop for a moment and think, the danger of such conditions could not but be apparent. Where adults only are concerned, it is bad enough, but where children, kept within a warm house, are exposed, if for only a few minutes, in such a place, they run grave chances of contracting severe cold, if, indeed, suffering no more dire consequences.

This is bad enough, but there is a worse phase still. In many cases the outhouse is entirely minus, and the only resort is the stable or shed. Now, where the male members of the family only are concerned, this may be of small consequence, but the feelings of the female inmates of the house in being subjected to this, no less than brutal exposure, can better be imagined than described.

And, indeed, does the farmer ever stop to consider that outsiders may rate his standard as a man by his attention or neglect of just such small details? Moreover, this is a condition in which the cost necessary to remedy matters cannot be used as an excuse for neglect. A completely-furnished lavatory may now be placed in the home at a very moderate cost; but even this expense is not necessary, as a few boards and a few sheets of building paper which can be purchased for 50 cents a roll, coupled with a little use of a saw and hammer, will place a lavatory on any farm, where anyone within will be perfectly sheltered; and even if a small investment is made to erect a better sort of building, it will bear good interest in lessened risk of doctor's bills.

We cannot but believe that the conditions, which are only too common in this section, are simply the result of thoughtlessness and the general aversion to speaking upon the subject, and I hope that these few hints may bear fruit among "The Farmer's Advocate" readers, to the great profit of a multitude of children and others.

"ONLOOKER."

A Positive Help.

Editor "The Farmer's Advocate":

Enclosed find \$1.50 for subscription. Am sorry I didn't send it sooner. I think that "The Farmer's Advocate" is doing more for the farmer than all the agricultural colleges in Canada. I saw mention in one of your numbers last spring of some farmers in Middlesex County sowing an annual clover to help out a poor catch. How did it succeed?
FRANK SEIBERT.

Perth Co., Ont.

[Note.—Nothing useful came of the experiment, as was recorded in these columns.—Editor.]

Likes P. E. Island Seed Oats.

Editor "The Farmer's Advocate":

I think, if wheat is properly cleaned, and the small grain screened out, the farmer can sow his own grain longer than is the rule, as I have seen home-grown seed give better yields than imported on the same field; and if the home-grown seed is cleaned, which in all cases it should be, there is no danger of introducing new weed seeds. In my opinion, if a change is required, we get the best results from Prince Edward Island seed.

White Russian seems to be the best yielder on all kinds of soil, but some who have dry, sandy soil have good success with Red Fife, and, as it gives better-quality flour, some will grow it at the sacrifice of a few bushels, as we take our wheat to mill and receive our own flour.

My only trial of new varieties was with Preston, but as I did not get flour of good quality, I stopped blaming the miller, and grew Fife.

A good roller mill in our vicinity is a great incentive to grow better wheat, as one is repaid for cleaning by receiving better flour.

In writing of seed wheat, I may say that treating for smut plays a very important part, as nothing is so disagreeable as black, foul-smelling flour. In the West, we use the pickler, but here, where only a few acres are sown to wheat, a cask filled with vitriol and water is a very good substitute. Although formaldehyde is said to be the best, I never saw much smut after vitriol (bluestone).

White Banner oats are the all-round oats for this country, although some grow black oats, as they claim they are best for horses, but the Banner gives the best yields. Some of my neighbors grow a few of the larger-kernelled oats for exhibition purposes, but all say they would not pass over Banner for their main crop. Seed oats are almost all secured on Prince Edward Island, as they seem to give good satisfaction.

Prince Edward Island clover seed is the best we can get, and comes higher in price than Ontario seed.

Right here a question arises for Westmoreland farmers: If they on Prince Edward Island can grow better seed than Ontario, why can not we, with the same climate and almost the same soil? Let each farmer sow a piece of land to clover, without any timothy; then, next year, let the children pull the weeds, and try to get our own clover seed in the future.

Will someone please enlighten us as to the cost of clover mill, as "V. A.," in article on alsike, says they are better than separator.

Growing timothy is another question. When the old men used to get their hay seed with cradle and scythe, they no doubt thought, if they could ride around on their binder and bind up their seed, with so little trouble, there would be a lot exported. But now, since the old cradle has gone, our farmers are buying almost all their timothy seed.

While we can grow almost all kinds of grain, our roots and potatoes must be our chief boast. Nowhere along the shores of New Brunswick and Prince Edward Island, both in quality and in quantity, we have large crops, almost entirely free from scab. The McIntyre is the favorite for Southern export. The beauty of this potato is that it stays solid and good in summer, when other potatoes get soft and strong. The Silver Dollar is the best yielder, though the deep eyes make it less desirable for a table potato. The old Early Rose is still my favorite early potato, though I have tried the Early Ohio, Early Sunrise, Green Mountain, and Stray Beauty. A neighbor has grown one kind of potato (a large, deep-eyed red) for upwards of thirty years, and it has never run out. Only the best potatoes were chosen for seed every year, and he always has an enormous crop. Potatoes do not seem to run out in our soil. As experience has taught me that there is no feed any better than boiled potatoes and barley chop for fattening turkeys and hogs, the potato holds a high place in my estimation; and when it sells for 50 cents a bushel, as now, the farmer may well take notice about his crop. We found Carman No. 1 a very poor-quality potato, as it was so wet. A new variety was developed a few years ago from seed, and is gaining popularity very fast. Some of your Ontario farmers could do worse than try this new potato. It is known as Tommie T., from the man who started it.

In the selection of garden seed, it has always been my rule to send to some seedsman, but now I believe it is best to grow all the seed it is possible for myself; so, in the fall, I choose the best-shaped turnips, beets, etc., and put in cellar, without trimming; then I have lots of seeds that I know come from good mother plants.

We in Westmoreland know very little about seed corn, as we do not grow much. It is chiefly grown by farmers who have large dairy herds, and fed to cows when pastures are short. It is seldom ripened here, as our springs are too late, summer too damp and cool, and it takes more labor than the average farmer has time to give his crop. Though some think their corn patch

an absolute necessity, the wet seasons of late, when pasture is good and corn is poor, is making the corn less every year.

To sum up the situation, I believe New Brunswick farmers should grow more seed of their own, and by putting the money they spend in buying imported seed into labor of cleaning, growing and gathering, I believe we would have better seed, fewer weeds, and, therefore, better crops.

If seeds must be bought, buy Government-inspected seeds, even at a few cents' extra cost.
Westmoreland Co., N. B.
R. G. O.

[Note.—The clover hullers used in Ontario are moderately expensive machines, and are run with the steam engines used for threshing grain, as they require considerable power. An idea of prices may be gathered from these quotations by a London (Ont.) firm of manufacturers: Huller with ordinary carriers 12 to 16 feet long, \$500; with stacker, \$750; with self-feeder, \$200 extra. This company makes only one size of machine, 50-inch.—Editor.]

Ordering Seed Through the Farmers' Institute.

Editor "The Farmer's Advocate":

Corn has proved such a failure here on the Island that not more than 10 per cent. of the farmers grow it, and half of those only on a very small scale. But some think, and perhaps rightly, that the chief reason of the failure here in corn is that it is planted too deeply. Just what effect a change of seed has on the yield it is difficult to say, yet I find it generally pays well to change seed frequently, although I contend, if a farmer is particular with his own seed to keep it pure and well cleaned, separating all small and imperfect grains from that which he intends to sow for seed, I cannot see any necessity for a change of seed. The idea now advanced about a change of seed is that, if a farmer is obliged to get a change of seed, it is best to get that seed from a farmer as near his own land as possible. To prove this, from experience, I may say that grain brought here from Ontario and sown will produce a very inferior crop the first year, but will improve as the grain becomes acclimated.

I cannot see much advantage in introducing too many new varieties. We have now as good as can be had, and, by proper cleaning and hand selection of the best of the varieties now grown, the quality can be kept up to a high standard. Personally, I have done little or no hand-selecting of grain, but a person only has to visit our annual seed fair to see distinct improvement from hand selection. Like begets like in the animal kingdom; so, also, in the vegetable.

To my mind, tillage plays a most important part in regard to the yield of a crop. It is said that tillage is manure. Moisture is also manure, or, rather, a conveyer of food or fertilizer in the soil. With a root or corn crop on good rich soil, without sufficient tillage, we will have an unsatisfactory crop. On the other hand, the same crop, on quite inferior soil, with proper tillage, yields a full crop, particularly in a dry season. The land on which potatoes, turnips and corn are grown needs the surface soil stirred frequently, until the plants are large enough to prevent the hot sun from forming a crust on the surface soil. With grain crops, the conditions for tillage are quite different. It is highly important to have a deep, well-cultivated seed-bed before seeding, and, in seeding, we should have an aim, either to produce a fair crop of grain and secure a good catch of clover for a good crop of hay the next year, or to seed heavier to grain, thus producing a better yield, at the expense of the clover crop the following year, it being smothered by the thick grain, and the plants that do get a start being too weak and puny to stand the long summer drouth. I find the disk harrow an excellent implement on the farm to work up a good seed-bed, but I find the tendency is to use only two horses on it; this machine needs three horses, with a 160-pound man on it; pull back the lever well, and it will do its work right. For those who plow their fields in lands, I find this harrow excellent for levelling backs of lands and dead furrows. For levelling, I prefer the in-throw style.

As very little seed corn is used here, and as we are exporters, rather than importers, of seed grain, principally oats, the question of securing supplies of seed grain does not trouble us; but, with regard to timothy and clover seeds, our farmers find the best way of securing seed is through our local Institutes clubbing together and ordering from some reliable seed firm. I might say just here that, before farmers took this matter in hand, we were imposed upon, and the Maritime Provinces were simply a dumping ground where the seedsmen disposed of all their trash and weed seeds, and it will now require years of persistent toil to rid our farms of the bad weeds that have got by far too firm a foothold here. And to remedy this evil we have now got a law, the Seed Control Act, and all seed now offered for sale by our merchants and dealers has first to be inspected by the Government official; and now the farmer knows just what per cent. of weed

seeds he is buying, and the name or names of such weed seeds.

It is a common practice here on Prince Edward Island to take two crops of oats in succession from the same field, and either seed out to hay on the oat stubble, or manure and take a crop of roots—potatoes, turnips and mangels—and possibly a little corn. This is generally followed by wheat and seeded out to hay. Hay is cut one or two years; pasture about the same, and then begin over again. But some have a different rotation from this already given, as follows: Sod, oats, roots (manured), wheat, clover, and, instead of pasturing the second crop of clover, plow it under for manure, adding humus to the soil; then oats or some grain crop again. But I would not, under any circumstances, take more than two crops of oats in succession from the same field, and unless the field is intended for roots the following year. I would rather seed oats on sod, unless I could top-dress with manure for the second crop of oats. This has been our aim for a number of years, either to top-dress the second crop of oats, or manure for roots, or both. The question might here be asked, "On which do you prefer to grow your root crop, on sod or stubble?" I prefer a stubble field every time. While I admit potatoes will grow as well, and perhaps better, in sod, turnips will not, and the extra labor in cultivating and keeping the sod field clean, especially if there is couch grass or weeds in it, will not pay for the extra potatoes grown. And I am convinced, by repeated experience, that turnips do much better on stubble land; never grow turnips the second year on the same land.

Prince Edward Island.

C. C. CRAIG.

Keep Sap Cool; Boil Fast; Sell Quickly.

Editor "The Farmer's Advocate":

We have a fine maple bush of twenty-four acres, and tap about a thousand trees, if we can get help enough. We use a modern evaporator plant and spouts, and a fine sugar-house. Our storage tank holds sixteen hundred gallons, and the gathering tank five barrels. Last year we had all full in a day with sap from 700 trees. We make 20 gallons a day if we have sap enough to keep us going, and sell all we make in the Town of Galt, at \$1.50 a gallon, and we can't make enough.

We gather the sap every day, and sometimes twice a day, if necessary. Our driveway is a little higher than the storage tank, from which it runs down to the evaporator. It is on the north side of sugar-house, so as to keep the sap as cool as possible. It is very important to boil as fast as can be done to insure syrup of a good flavor and bright color. We provide a year's supply of wood ahead in a big woodshed, furnished with a track and car, so as to carry the wood right where we want it.

We always start as soon as weather is favorable, with two men and a team, and all other help we can get for a time, until all is in working order, then one boils constantly, two gather with team, and it keeps me busy to sell, so we never have more syrup at home than from a day's boiling; the people get the syrup fresh and pure. We use a felt strainer, so no particle of sediment passes into syrup. We also use a tester, to insure syrup of even density.

Waterloo Co., Ont.

N. HAID.

Sound Advice on Soil and Seed.

Preliminary to a discussion on seeds, addressing an audience on the M. C. R. Better-farming Special, Anson Groh, of Waterloo County, Ont., emphasized the importance of good soil conditions, laying stress upon drainage, fertility and tillage. The plant wants warmth, air and moisture, and upon the start it gets the yield largely depends. If you take a little animal, a lamb, a calf, or a colt, and do not give it a chance to establish itself, it won't come into its own. That a soil may be warm, it must be well drained. It takes ten times as much heat to warm a pound of water as a pound of earth. Grow deep-rooted crops like alfalfa, which will help to till, drain and aerate the soil. Farm deeply by such means. A seed is a living thing, subject to laws like other living things. There is an inherent power in seeds, as in animals, and we want seeds that inherit the best tendencies. Use plenty of wind and screens, so as to get the best seeds possible. Never sow a seed that is below the ideal. Do not chase new varieties. If you pick a breed of stock, stay with it, and do the same with seeds. Make a choice of varieties; find out what you want to grow, and grow it, leaving the production of new varieties principally to the professors and experimenters who have time to spend on such work. Those who fuss with every new variety that comes along will keep tangled up in their seed problems constantly.

Glendinning on Alfalfa.

Speaking about alfalfa on the Better-farming Special, at St. Thomas, March 4th, Henry Glendinning declared it the greatest of our forage crops. He believes it can be grown on practically all soils, except the swampy or peaty ones. If the land is not well drained, it will pay to tile it to the depth of three feet. Buy the best seed it is possible to purchase, and by preference get seed raised near home, as this will be better acclimatized than seed grown at a distance; besides, there will be less danger of infesting one's farm with seeds of new weeds. His own practice is to go through the fields every year about the first of July looking for new weeds. In one field sown with seed from Germany, he had discovered two kinds of mustard that had never been seen in Canada before. In another kind he found Russian thistle, and in still another gum weed, these latter kinds being from the Western States. Be careful about introducing new weeds.

Mr. Glendinning sows his alfalfa seed at the rate of 15 pounds per acre, with a nurse crop of three pecks of barley, on a field that has had a coating of manure applied for a well-cultivated hoed crop, the land being then cultivated the next spring without breaking, and worked to a fine seed-bed. Treat the seed with nitro-culture if neither alfalfa nor sweet clover has grown on the farm before, and sow the treated seed in front of the drill tubes to insure that it will be covered promptly, without exposure to the sunlight. Without nitrogen, the plants grow weak, the leaves turn yellow and soon drop off. Plants grown from inoculated seed, or in soil that has been naturally inoculated, grow green and vigorous. With a good catch on rich, well-prepared land, the alfalfa will often be as high as the barley. When reaping the grain, leave a long stubble to hold the snow, and do not pasture the new-seeded alfalfa after harvest. The thick, bushy growth will help to hold the snow, and under this brush the plants in the following spring will start perhaps a week earlier than where the top has been grazed off close in the fall. He believes there have been more losses and failures in alfalfa-growing in this country from pasturing than from all other causes. The more you pasture, the thinner the stand becomes, and the more liable you are to lose your stand in some exceptionally severe season. As to rate of seeding, the speaker remarked that it used to be recommended to sow 25 pounds per acre, but in those days the seed was often old and lacked vitality. Now, owing to the brisk demand, the seed is practically all fresh, and, if obtained from a good source, and sown as described above, practically every seed that sprouts will come up and produce a plant. Mr. Glendinning showed a glass-front case containing three kinds of hay: Red clover, made by the green-curing method (hauled to the barn the evening of the day it was cut), and the other two kinds showing first and third cut of alfalfa, made as follows: The green alfalfa was tedded the day it was cut, then raked into windrows, tedded twice the next day in the windrows, and in the morning of the third day tedded again, and loaded with hay loader. From the time it is cut, until it is fed, no fork is put into it, except by the men on the load. The samples of hay were very nice, and one could believe Mr. Glendinning's statement that last year his cows had eaten it readily in the summer, instead of green crops, and had done well on it. His winter ration consists of corn silage, roots, and alfalfa hay. Anyone, he claims, who can grow alfalfa and corn, and feed these to good cows, is favored with special opportunities to make money.

Salt and Land Plaster for Barley.

Dr. Wm. Saunders, Director of the Dominion Experimental Farms, reports that common salt, which has long had with many a reputation for its value as a fertilizer for barley, while others disbelieved in its efficacy, has been shown to be a valuable agent for producing an increased crop of that grain, while it is of much less use when applied to crops of spring wheat or oats. Land plaster or gypsum has also proved to be of some value as a fertilizer for barley, while of very little service for wheat or oats.

Fresh vs. Rotted Manure.

Careful trials, conducted over an extended series of years, and finally restated in the report of 1910 for the Dominion Experimental Farm, at Ottawa, show that barnyard manure can be most economically used in the fresh, unrotted condition; that fresh manure is equal, ton for ton, in crop-producing power, to rotted manure, which other experiments have shown loses during rotting about 60 per cent. of its weight.

Among all the forms of employment which engage man's attention, there are few which require more ability to conduct successfully than farming. —Dr. Wm. Saunders.

THE DAIRY.

From Cow to Consumer.

An enterprise has been started in the vicinity of Moose Jaw, Sask., which should have special interest for dairy farmers in the Eastern Provinces, and whose career will doubtless be closely watched by them. This is an up-to-date dairy business, conducted by the Moose Jaw Dairy Company, on a 480-acre farm three miles out of the city. At present there are 90 cows in the herd, but it is intended that the number shall be increased to 120.

In the management of this dairy herd, there are several features of interest, but the one whose working out will be followed with the greatest interest by Eastern milk producers is that the soiling system is to be practiced for summer feeding. In the large barn, which will accommodate 120 cows, the animals will stay winter and summer, except that they will be let out occasionally in winter, and more frequently in summer, for exercise. A plot, not a field, is provided for this purpose.

The company was organized in the spring of 1910, but the business of putting up buildings, securing cows, and otherwise preparing for carrying on a city milk trade, occupied the summer season, so that it is only a few months since operations actually began. For the present winter, the feed consists principally of oat sheaves, cut green, supplemented by a mixture of bran, middlings and "red dog" (low-grade flour), mixed in the proportion of three parts of bran and middlings to one of flour. For summer feeding, such crops as oats and peas, corn, alfalfa, etc., will be grown. These will be cut green and hauled into the barn. It is the intention to erect a silo next summer, and corn will be grown to fill it.

Many Eastern dairymen practice a partial soiling system profitably at present, and many others are in a waiting attitude towards the whole question, ready, once they are convinced that the theory will really work out in practice, to adopt it. If this Saskatchewan venture turns out to be successful, there seems every reason to believe that farther East, where labor is cheaper and land less plentiful, soiling ought to be even more likely to be profitable.

Mr. Boyd, the prime mover in this Western milk-supply company, has hit upon a ventilation system adapted to the particular needs of the situation. Fresh air enters from the hay chutes in the ceiling above the feeding alleys, and the vitiated air is drawn out through flues at the walls, starting at the ceiling, and extending some distance above the eaves. The mouths of these outlets are turned in towards the roof, so that the wind may blow from any direction without checking the upward current.

The present herd was purchased in Wisconsin and Ontario, and consists of Jerseys and Holsteins in almost equal numbers. The herd bull is Holstein, and comes from a noted milking family. Selecting heifer calves from the best milkers, and weighing each cow's milk daily, are the means employed to bring the herd up to a higher average of milk production.

"Cleanliness" is to be the watchword all through the process of producing milk on the farm. Each man has fifteen cows to look after, and each cow is well brushed and curried every day. The milk is drawn into sanitary milk pails, and as quickly as possible taken to the milk house. Here it is cooled at once to a temperature of from 40 to 45 degrees, put into a bottle-filler that fills and caps 12 bottles at a time, and then into a cool room, ready for delivery.

That the public in the average Western town and city are willing to pay for quality in milk, is evidenced by the fact that the milk sells for ten cents a quart, and that the demand has been in excess of supply ever since the business opened.

I saw a query about creamy buttermilk by "A. E. H.," and if you will allow my experience, I thought perhaps it might help him. First when we got a separator I had that trouble, and found out that, as I have seen you advise, I must not put cream in cream can for a day before churning, or if not very much, and cream is fit to churn, it could be churned in the latter part of the afternoon if the evening cream had been added the evening before. I make a good deal of butter, and have not had any trouble for years.

Simcoe Co., Ont. (MRS.) J. W. MURRAY.

I saw in your issue of February 23rd a subscriber had trouble with butter not coming. We had trouble with ours much the same, and we asked Miss Rose, of Guelph, privately. She said she found the best way was to heat the cream to 150 degrees as soon as skimmed, and then cool it down before putting it into the vessel for it to ripen. We tried this way, and have had no trouble since, butter always coming inside of an hour, and no fresh cows.

HOWICK SUBSCRIBER.

MARCH 16, 1911

Lincoln Red Herd Built Up by Milk Records.

Attention has been drawn before to the remarkable milk records of the Lincoln Red Short-horns, owned by John Evens, of Burton, England. Mr. Evens began weighing the milk from his cows as far back as 1890, and has kept it up ever since, so the extra work must have paid.

In the first year of the testing, there were 31 cows in the herd, and these averaged 740 gallons. During the past year, 51 cows were in the herd, and these averaged 838½ gallons, or 8,385 pounds per cow. This is a high average, and far above the general average of the country. Mr. Evens' highest record was in 1896, when 43 cows averaged 889 gallons. In last year's records, the highest individual yield was 12,213 pounds. This cow was 322 days in milk, and had the high daily average of 37.9 pounds. Another cow gave 11,863 pounds of milk in 308 days, and eight other cows gave over 10,000 pounds each during the year. To show how well Mr. Evens' system enables him to breed from heavy milkers, it may be noted that 12 of the cows were first calvers, and some of them gave over 10,000 pounds of milk for the year. This emphasizes the fact which has been so often insisted upon, that the keeping of systematic milk records enables the dairyman to raise more profitable milkers, and eliminate the "boarders," which are the bane of so many dairy herds.

The writer has frequently seen Mr. Evens' cows at leading shows, and always they can be relied upon to take the leading prizes for the breed. The keeping of milk records has paid Mr. Evens well, and would pay every other dairyman over and over again for the extra labor.

F. DEWHIRST.

Co-operative Milk Depots in England.

In a country like England, where the great bulk of the milk produced is sold directly for use in cities and towns, the question of the disposal of the surplus milk during the heavy summer flow is a serious one. It is not an easy matter to solve, as the surplus of an individual farmer is not large enough to warrant him putting in butter or cheese making apparatus. In the winter time there is no surplus to worry about—rather the opposite.

A solution may be provided, it is hoped, by co-operative milk depots, and the farmers of Wiltshire have combined and erected a fine factory, costing £10,000, at Chipperham. The factory can handle 10,000 pounds of milk per day. Instead of farmers shipping milk individually to the towns, it will go to the central plant, and be handled in the most approved fashion, and then sent to the customers. During the surplus season, any milk not disposed of will be made into cheese. The milk will reach customers in far better shape from a central depot, and middlemen's profits will be eliminated—and these certainly take a considerable share of the profits.

As to the future, it is largely a question of loyalty amongst those contributing milk. No doubt efforts will be made by the present buyers to prevent the success of the new concern by temporarily offering more money than the factory will pay.

F. DEWHIRST.

Allows Sale of Skim Milk and Buttermilk.

Editor "The Farmer's Advocate":

I beg to thank you for your kindly comments in the March 2nd issue on the Milk Bill now before the Legislature. As to your suggestion in reference to the sale of skim or butter milk, I desire to point out that it is already provided for. In subsection 2 of section 5 of the Act, copy of which I am enclosing, you will notice that no milk may be changed from its normal condition, unless this fact is duly advertised. This was drawn with a view to permitting the sale of skim milk, buttermilk, or any other special kind of milk, so long as that fact was made clear to the purchaser. The purpose of the Act was to deal only with what is generally understood as milk as it is bought daily by the average consumer.

JAS. S. DUFF.

One of the Good Cheese Factories.

The attractive little photograph published herewith represents the White Lake Cheese Factory, Hastings Township, Hastings Co., Ont. The building is of cement, with living-rooms for the milkmen at the factory. About 180,000 lbs. of milk is received and manufactured into cheese here each season. It is one of the factories selling on the Belleville Board. It ranks as one of the best of the factories of the Madoc district, being kept in sanitary condition, and turning out cheese of excellent quality.

APIARY.

The Habitation of the Bee.

By Morley Pettit, Provincial Apiarist, O. A. C., Guelph.

Honeybees cannot live a solitary life. Essentially social in their habits, they live together in colonies or families composed of the mother queen and her children. Each colony occupies an enclosed home called a "hive." This may be a natural cavity in tree, rock, or other place, which the workers have cleaned out and fitted up to suit their taste; or an imitation of such natural dwelling which contriving man has made to keep them near him. In either case they make their own interior furnishing. The artificial hive may have frames and other fixtures, but the essential furniture must be made by the bees themselves. This

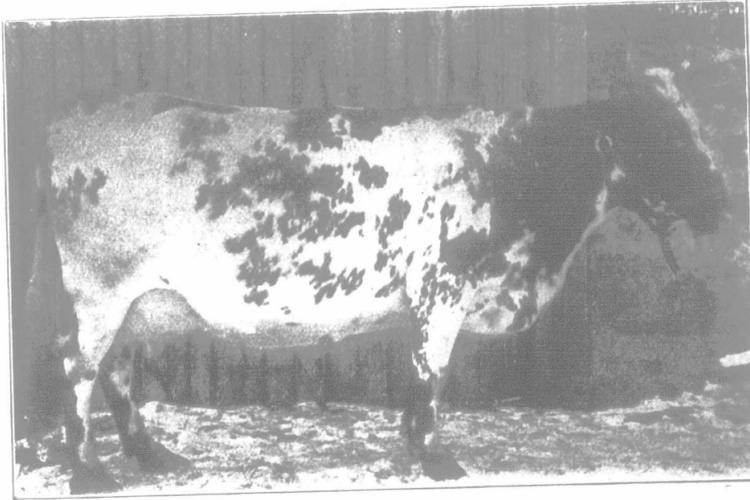


White Lake Cheese Factory.

is the comb they use for the storing of provisions and as cradles for the young.

COMB.

Comb is always built of beeswax. Bees do not gather wax from flowers, nor make it of pollen. They secrete it just as naturally as crated poultry put on layers of fat. In fact, the conditions for its production are similar: high feed, bodily inactivity, and warmth. Under these conditions, wax grows in delicate scales in the wax pockets of the young workers. This wax is worked over with the mandibles, and built into the well-known honeycomb form. This is a delicate structure of six-sided cells, facing both ways from a wax partition, and separated by thin cell



Primrose of Tanglewyld—15943—

Ayrshire cow, eight years old. Milk production, 1909: 13,536 lbs.; fat, 529.08 lbs. 1910: milk, 16,195.5; fat, 631.64. Total for two years: Milk, 29,731.5; fat, 1,160.72. Owners, Wooddise Bros., Rothsay, Ont.

walls of the same material. Each cell of the comb is first made round; then, as more cells are crowded against it, the sides flatten, and it becomes six-sided. Worker cells are about one-fifth inch, and drone cells are about one-fourth inch in diameter. The same comb may be built partly of worker and partly of drone cells. The partition down the middle of the comb, formed by the bottoms of the cells on each side, is called the foundation.

The cost of comb-building depends on the time and material used. Bees only build comb when there is sweet of some kind being handled in the hive. In other words, they decline to prepare storage-room for the honey flow until it is upon them. Then, when they come in loaded from the field, they must wait for wax to be secreted and comb built before they can store their load and

go for more. In temperate climates, cool nights delay the secretion and manipulation of wax and increase the loss of time, while the nectar in the blossoms is wasting for want of being gathered. It is as though the owner of a maple grove waited until sap weather in spring, then sent his men to manufacture wooden buckets for the sap while the days were passing, and the sap dripping from the spiles onto the ground. Add to this the discontent caused by the delay in the hive, and the overcrowding of fielders waiting to unload, greatly increasing the tendency to swarm, and you see some reasons why comb-honey production is so much more expensive than extracted honey, when the empty combs are returned to the hives to be refilled.

It is valuable to note, also, the conditions under which bees build worker or drone cells. These may be roughly classified as follows:

1. A swarm hived on empty frames always start building worker comb.
2. So long as the queen's egg-laying, keeps pace with the comb-building, worker cells are built.
3. As soon as the queen lags behind and is unable to deposit an egg in each cell as it is built, the workers change over to the building of drone cells. But if they get these filled with honey, so that the queen overtakes them again, they may change back into the making of worker comb. This explains how it is we find such a mixture of drone and worker comb in a hive where no artificial foundation has been used.
4. If from a hive containing plenty of comb any part of the comb is removed, the bees nearly always build drone comb.
5. A queenless colony will always build drone comb.

It will be seen by these general statements that the workers seem to show deference to the wishes of the queen, for they build worker comb whenever she is ready to occupy it at once with eggs; otherwise, they build larger cells, suitable for drones or storage.

COMB FOUNDATION.

A study of these statements, coupled with the fact that drones are undesirable in honey-producing colonies, will show that it is not practical to depend on the bees to build their own comb unaided; there would be altogether too much drone comb and too many drones. This difficulty has been overcome by the invention of Johannes Meh-ring, of Germany, of a process of manufacturing an artificial comb foundation which bees will readily accept and build into nice straight, all-worker comb. It is simply pure beeswax rolled in thin sheets, with the bases of worker cells stamped on each side. These sheets are placed in the hives and used by the workers as foundation of comb. Machines for making this at home can be bought,

but it is generally considered more profitable to send the wax to a specialist to be made up at so much per pound.

Except in certain special cases, it is always an advantage to give bees full sheets of foundation for comb-building, instead of leaving them to build it to suit themselves. By its use, every comb is built straight as a board, and is interchangeable with every other comb in the apiary. The combs are entirely worker comb, with the exception of occasional drone cells, the bees will work in at edges or corners. All the wax produced by the bees and gathered by the apiarist from scraps, old combs, or cappings, can be returned to the bees in

this shape, and can be rendered again after years of use, none the worse for wear.

The apiary business is devolving more and more completely into the hands of specialists. Foul brood has played its part, for the beekeeper who will not adopt thorough measures to exterminate it is practically forced out of business. Incidentally, it may be noted that expert apiarists view with satisfaction the extinction of the careless amateur, whose continuance in the business is a menace to the industry.

Not only every apiarist, but every student of natural history, will be interested in Mr. Pettit's articles on the honeybee. The first one, on anatomy, appeared in "The Farmer's Advocate" of February 23rd.

POULTRY

Soft-shelled Eggs.

Editor "The Farmer's Advocate":

1. Hens have been laying since early in January. Lately, many of the eggs have soft shells; some so much so that they break; have lost a great many that way. Keep lime and coarse sand, also oyster-shells before them. They are fed a mixture of barley, wheat, corn, oats, alfalfa and clover, steamed one day; boiled potatoes, with a little chop, next day. Also have mangels hung up around pen; plenty of fresh water, also chilled buttermilk, to drink, once a day. Is there anything I could give them to prevent eggs being so? Do not feed heavy.

2. Also, a number seem to get powerless, seem dumpy, cannot get on roost, sit around for a few days, then get better and go off again. J. B.

Ans.—1. In absence of information as to variety of fowls and their age, I surmise that they are one of the utility class. If so, the cause of the eggs with soft shells is an overfat condition of the fowls which laid them. The remedy is to reduce the rations, dropping the corn altogether. The weather is becoming too springlike for corn, which should be very sparingly used, if at all, in the case of heavy breeds. Give plenty of green food by itself, with a little at noon thrown on the litter on the floor, to incite to exercise, which may have been too little indulged in. The steamed alfalfa will do splendidly, if hens will eat it; if not, give mangels. The hens have been too well treated.

2. The trouble was due to inflammation of the lower intestines, due to a long-continued feeding of the same diet, without change, and mayhap the too generous feeding of the same. Change diet, and, if possible, let the hens run outside. It is quite possible that when the rations are reduced, the fowls may stop laying. However, they may as well do so as lay eggs with soft shells. A. G. G.

Prof. Graham's New Poultry House

Illustrated on this page is the style of poultry house recommended by Prof. W. R. Graham, of the Ontario Agricultural College.

This house is 20 feet square, 4½ feet high at the north side, and 3½ feet at the south, and about 7 feet high in the center. It is built of rough lumber, and the cracks are battened. The south side is open, there being a wire netting 2 feet wide the entire length of the building (Fig. 1). A window, 4 x 5 feet, is placed in the west end (Fig. 2), and the door is in the center of the east end (Fig. 3). The roosts are scantling, and consist of three parallel rows running along the north side, about two feet from the ground (Fig. 4). Litter, consisting of straw and shavings, is kept on the ground for the hens to scratch in. There has been a flock of 100 hens of mixed breeding, such as is found on the average farm in Ontario, in this house all winter. These hens have rarely shown any signs of discomfort, and have given results which compared very favorably with those obtained from other pens. The lowest temperature recorded on the outside of the pen was 15 degrees below zero, while it fell to 3 degrees below inside the pen, and the hens seemed to mind it very little. Prof. Graham said that only on some three or four days did they seem at all too cold. For such extreme days, he thought it might be well to have a curtain which could be dropped over the front; but if this was not well looked after, the house would be much better without it. The cost of the house completed is about \$60. The house is remarkably free from drafts, which are so disastrous to poultry.

The following is the number of eggs produced by the hens, and also the amount of food consumed by them:

Month.	No. of eggs laid.	—Amount food consumed—			
		Grit, oyster-shell.	Corn, barley.	Mash or wheat, oats.	Hen-t. lbs.
Nov.	175	19	460	115	106
Dec.	786	16	600	180	100
Jan.	774	21	545	204	100
Feb.	835	30	300	295	

The hens were given buttermilk to drink, instead of water. Fresh air is abundant in the house, and these hens have been very healthy and lively all winter. One strong point in favor of this house is that the sun shines into it during the greater part of the day; and if the sun is shining, it is never too cold in it, no matter how cold the day is. Hens do not seem to require more food in this house than in the warmer houses. WADE TOOLE.

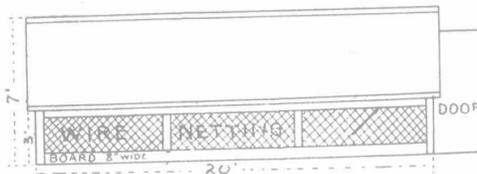


Fig. 1.—Front—South Side.

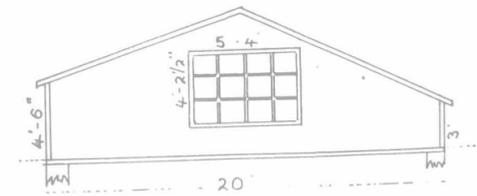


Fig. 2.—West End.

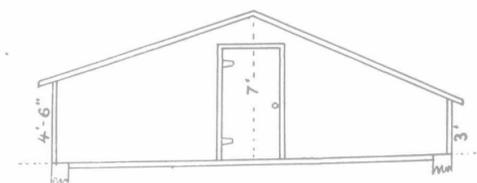


Fig. 3.—East End. This cut should have been reversed. It shows the lowest side north instead of south. Otherwise it is all right.

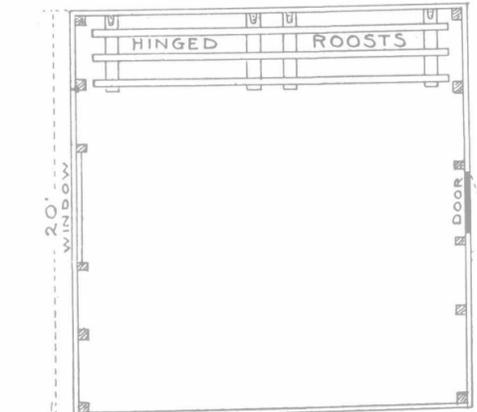
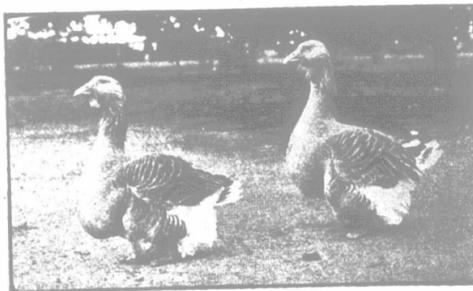


Fig. 4.—Ground Plan—South Side.



Pair of Toulouse Geese—Prizewinners.

This improved race of the old Gray goose is the most popular of all domestic geese, on account of its general usefulness. As handled on most farms, it lays the largest number of fertile eggs of any goose equalling them in size. A good adult gander weighs 28 lbs., and a goose 20 to 22 lbs.

GARDEN & ORCHARD.

Onion-growing, Scotland, Ont.

The village of Scotland is a few miles southwest of Brantford, Ont., and is the center of one of the chief, if not the chief, of the districts in the Dominion devoted to the growing of marketable onions for household use. A description of the methods of culture that are followed there may be of benefit to others who are engaged in the same line of gardening.

The Scotland onion-growers are not gardeners, however, as that name is generally understood, but are farmers who grow onions as one of their farm crops. Many of them have five acres in this crop, though a greater acreage than that on one farm is seldom seen. The income from onions in many cases equals what is received from the sale of all other products of the farm.

The ground is plowed in the fall, and if there is manure on hand, it has been found the best practice to spread it on the surface of the plowed

ground and work it in with the cultivator or disk harrow. If there is no manure available in the fall, it is applied in the spring, and, if fine enough, is surface-worked in; but if too strawy for that, is plowed under as shallow as possible. From fifteen to twenty two-horse loads per acre are applied. Scarcely anything has been done as yet with artificial fertilizers.

Before sowing, which is done as early as the ground is dry enough to work well, by means of cultivator, disk and harrow, the surface is brought to a very fine tilth, and then levelled and smoothed with a plank float.

Seed is sown at the rate of four pounds per acre. The depth aimed at is one inch, and the rows are thirteen or fourteen inches apart.

In three days or less after sowing the wire weeder is started. This implement can be best described by saying that it almost exactly resembles an ordinary Breed weeder, except that the teeth are of wire, about No. 9 thickness, placed an inch apart. Some use a wire weeder eight or ten feet in width, hauled by a horse, but more particular growers have them but four feet wide, attached to the handles of a wheeled hoe, and propelled by hand. This implement is used every few days until the plants are about four inches high. Its use is discontinued by some for a few days after the loops of the little plants appear above the ground, until they straighten out. The weeder is run chiefly across the rows, but it is also run anglewise, lengthwise, and, indeed, "any old way." The teeth being so fine, scarcely any damage is done to the plants, and the labor of weeding is lessened by 50 per cent.

The wheeled hoe, or the cultivator, as the Scotland men call it, is next started. The double-wheeled style, straddling the row, is preferred for the first two or three cultivatings; afterwards, a single-wheel implement, working between rows, is used. At the first cultivating, the knives are set only three-fourths of an inch apart, if the rows are straight and the man careful, thus leaving very little weeding to be done by hand. The more thoroughgoing farmers like to have the onions hand weeded three times. Such men also practice thinning to a distance of two to two and a half inches apart. Thinning is done at the time of the first weeding, the plants not being pulled out, but cut out deeply with the weeding knife. Wheel hoeing between rows is continued until the tops interfere and the ground becomes filled with roots. The most of the onion fields are kept beautifully clean.

When the crop begins to ripen, if ripening is uneven, an empty barrel is rolled over the field, breaking down the tops of two rows at a time.

Harvesting, which comes next, is begun by another use of the two-wheel cultivator, but with the double knives taken off, and a single strong knife put in, instead. This knife is curved so as to go deepest under the center of the row of onions, and to rise out of the ground a few inches on either side of it. This leaves the onions apparently undisturbed, or, at most, tipped over, but the roots are cut and bulbs loosened, so that drying off begins at once. After a few days, six, eight or even twelve rows are raked into a windrow, an ordinary wooden rake, with extra teeth inserted, being used.

Topping is sometimes done in the field before the onions are gathered up, but more generally, perhaps, they are taken into the barn as soon as dry, and topped when convenient. So far, this operation has been done by hand, the top being either pulled off or cut off with a knife. A power topper, driven by a gasoline engine, the whole being mounted on a wagon, so that it can be driven between the windrows, has been tried, but so far has proved a failure.

In the Scotland district it is the practice to grow onions on the same field year after year. Reference was made to fields on which they had been grown for twenty years in succession, a full coat of manure being applied each year, of course. A feeling is growing, however, that that practice has been overdone. Fred Smith, one of the most expert growers, believes that there should be at least two fields, used alternately. He cited an instance of a crop being attacked by smut, which he believed was due to onions having been grown exclusively for too great a length of time.

There has been a good deal of trouble with onion seed being of poor quality. In the past it has been procured principally from seed merchants in our own cities, though a good deal has been imported of late years from Ohio. The talk now is of growers raising their own seed. What little has been done in this line gives great encouragement to go further. Home-grown seed, on being tested, showed 99 per cent. that germinated, while purchased seed has gone as low as 30 per cent. in some instances. The year 1911 will show a large increase in home-grown seed.

The ravages of the onion maggot were especially severe in 1909 on the low ground, half of the crop being destroyed; but this is unusual, as there is seldom even 25 per cent. of a loss from maggot. In 1910 the maggot did no damage to speak of. Some growers try to tempt the maggots away from the onions by sowing radishes along with them, but this practice does not find

much favor. Next to the maggot, as an onion pest, and, according to some, a much worse one, are the onion thrips, or blight. Thrips are tiny larvae or worms which attack the leaves just where they divide one from the other, and are sometimes in such numbers as to cause the leaves to wither and dry up, though more commonly a graying of the green is all that is noticed. Onion smut is also sometimes serious, the plants affected showing smut on the leaves and also between the layers of the bulb. Nothing of much value has ever been used in the Scotland neighborhood as a remedy for these pests, though it is believed that rotation of crops would be of some avail.

Three hundred bushels of onions per acre is an average crop, though twice that number of bushels have been raised occasionally. An average fair price, loaded on cars, has been one cent per pound—75 cents per 75-pound sack. In the fall of 1910 the price was 85 cents, and the demand so keen that there were none left to store. The crop was two-thirds of an average one.

Science of Pruning.

By Prof. J. W. Crow, O. A. C., Guelph, Department of Pomology.

Before one can hope to regulate intelligently the fruit bearing of trees, it is necessary to understand something of the nature of plants. In all organisms there are at present two opposite and conflicting tendencies. There is, firstly, the tendency towards physical development or vegetative growth. In plants, the vigor of physical development depends upon the degree of activity of the roots, as it is the function of the root system to supply the moisture and raw material out of which tissues are manufactured. There is, secondly, the tendency towards reproduction—the individual perpetuating itself. While a tree is young, the roots are very active, and strong growth is the result. As maturity is approached—and maturity is simply the stage at which physical vigor begins to decline—the top and root come into a state of equilibrium or "balance." It is not until this condition is approached that the process of reproduction can begin. Previous to this time, the top continues to increase in size in response to the activity of the root, but now it begins to develop fruit buds, blossoms and fruit. The function of the top is, primarily, to become the means of reproduction. The leaves transform the raw materials furnished by the roots into material which can be used for the direct manufacture of wood-tissue, leaf-tissue, or the tissues of the reproductive parts. The products of leaf activity are principally starch and sugar. These are used in all portions of the plant for growth purposes, and, if produced in excess for growth requirements, are stored up, to be drawn upon as required. It is probable that stored plant food must be present in considerable quantity before fruit buds will be developed.

The purpose of pruning is to assist in creating and maintaining the proper balance between root and top. It is possible, by pruning, to accelerate vegetative growth, if desired, and it is also possible, in cases where growth is excessive, to check it, and cause development of fruit buds. Pruning the top in the dormant season reduces the proportion of top to root, and is known to result in increased vigor of growth. On the contrary, pruning the top in the growing season checks growth by interfering with the manufacture

of food material, thereby reducing the quantity available for growth the following season. Other means of checking excessive vegetative growth are root pruning, which directly reduces the quantity of raw material taken in; girdling, which nourishes the top at the expense of the root; and dwarfing, which starves a tree by growing it on a restricted root system.

It will be noted at once that pruning is but

one of several means of influencing fruit bearing. Cultivation, fertilization, spraying, and even drainage of the soil, exercise a considerable influence on the vigor of growth. Cultivation may be excessive, in which case growth may be so strong and rapid as to prevent fruit bearing, and fertilizing, also, may be carried to such an extreme as to lessen production. It is not, of course, advisable to go to the opposite extreme, and entirely withhold fertilizers or cultivation, for the reason that a tree requires a certain amount of vigor in order to properly develop its fruit buds. Spraying and drainage affect vigor in so far as they permit the plant to reach its normal state of healthful development, without being compelled to overcome adverse soil conditions or the attacks of insects or diseases.

Pruning to increase vigor of growth may be necessary in the case of diseased or decrepit trees, and unhealthy trees can sometimes be revived by severe winter pruning. Trees which overbear may be pruned for the double purpose of thinning the fruit and increasing vigor of growth. A variety such as Wealthy, which bears very heavily every other year, should be severely pruned the spring previous to the bearing year. This thins the fruit and tends to the production of fruit buds and wood for the following year's bearing. If the pruning is done previous to the non-bearing year, growth is stimulated, and the tendency to bear in alternate years is exaggerated, instead of lessened. Old, neglected trees can be invigorated by severe pruning in the dormant season, which extends up to the time the trees have developed some little quantity of leaf surface. The removal previous to that date of a portion of the top means a proportionate increase in the stored fruit supply, as well as in the root area, and a proportionately stronger growth in consequence. Pruning after that date checks growth, by reducing the leaf area, and may result in the production of fruit buds. This explains the statement that "June pruning produces fruit." With some trees, the dormant season extends to the period of full bloom, or even later, depending on the degree of development of the accompanying leaf-surface.

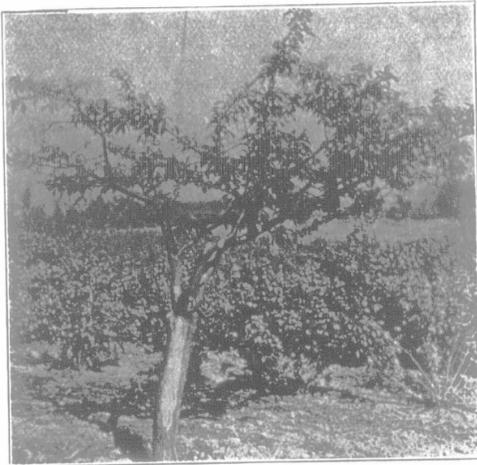
So far as the healing of wounds is concerned, the best time for pruning is just previous to the beginning of active growth, although the matter is not important, except in northern districts or in the case of large wounds. Evaporation of moisture from wounds made in winter is a frequent source of injury in districts where low temperatures are experienced. It is probable that the drying-out is more dangerous than the actual degree of cold reached, and it may be prevented by covering with grafting wax or paint made from white lead and oil. This treatment also prevents decay of the exposed wood, and may result in keeping the tree sound and healthy for many years longer than would otherwise be the case. Wounds on or near the trunk should receive particular attention at all times, as trees are likely to suffer very seriously through decay and disease at those points.

In removing large branches, or branches which arise near the trunk, it is always well to avoid leaving stubs. Make the cut close to the parent branch, or close to the point from which another branch arises. This will facilitate healing. A small stub left in the outer portion of the tree is not likely to cause damage, although smooth work is always desirable.



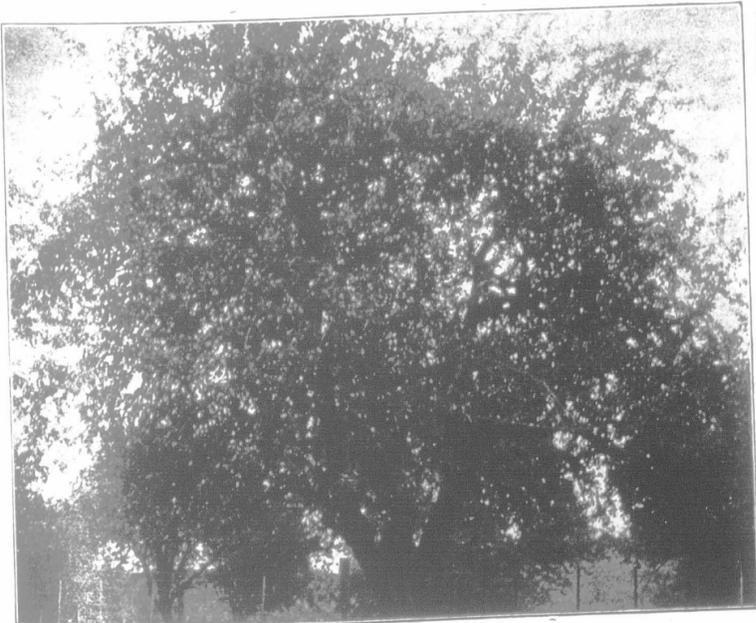
||| Effects of Bad Pruning.

Stub left too long, and was probably not cut at the best time. Instead of healing over promptly, as it would have done if cut close, the stub has decayed, forming a hollow in which birds nest.



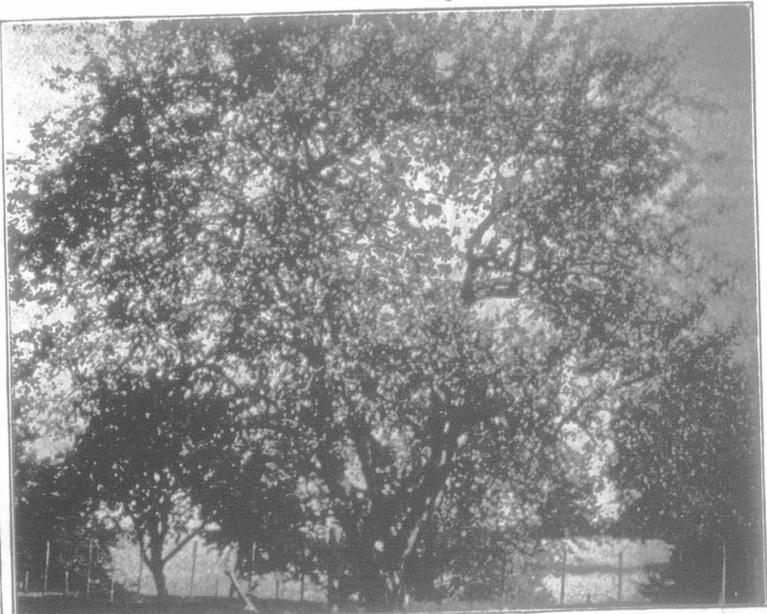
Serious Case of Sunscald.

Was cleaned out and painted twice, and is now healing over. Short trunks lessen danger of injury of this kind.



Before Pruning.

An old, neglected King apple tree in "The Farmer's Advocate" Demonstration Orchard No. 8.



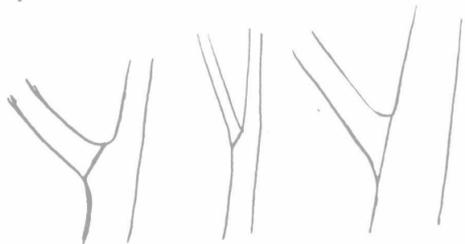
After Pruning.

Same tree after pruning. Pruned in June, 1910.

For ordinary work, the light, swivel-bladed pruning saws are excellent. Long-handed pruners are excellent for quick work, but do not, as a rule, make close, smooth cuts. A good hand clipper is indispensable.

In heading back a young tree, it is frequently desirable to cut to a particular bud, for the purpose of giving the young shoot the proper direction of growth. If this pruning is done early in the season, it is well not to cut close to the bud. Leave a stub, and remove the same at a subsequent pruning. If growth is about to start when the cut is made, no harm will be done by cutting close, but if drying-out takes place from the cut end of the branch before growth begins, the bud is likely to be injured, if not killed.

Pruning to increase vigor of growth may be necessary in the case of young trees, but in most cases the desired increase in size can be best secured by cultivation or fertilizing, or both. Winter pruning of young trees should not be carried farther than is necessary in order to secure proper form. It must be borne in mind that



The proper angle for making the cut. Leaves a smaller wound, which heals more quickly.

Improper cut. Leaves a larger wound, which takes a longer time to heal.

strong growth is opposed to fruit-bearing, and severe winter pruning consequently tends to delay the fruiting period. As a rule, early bearing means short life, and, while it is not advisable to allow trees to bear too early, it is certainly not advisable, in the majority of cases, to delay fruit-bearing longer than is necessary.

Spring pruning, as ordinarily practiced, undoubtedly has the effect of increasing general physical vigor. It may also have the effect of causing fruit to set. A well-cared-for tree may produce too many fruit buds, in which case a large part of the energy of the tree may be expended in the seemingly simple act of expanding the buds into blossoms. A tree may actually exhaust itself in this way to such an extent that setting of fruit is prevented. It is not generally recognized that large quantities of energy, in the form of heat, are given off in the process of unfolding leaves and blossoms, but observations have proven that such is the case. A thermometer placed in the center of a tree in full bloom will in calm weather register appreciably higher than one outside of the tree. The quantity of heat produced may in some cases be sufficient to prevent frost injury to blossoms, or to confine the injury to the exterior portions of the tree. Certain Alpine plants are known to grow and bloom under the snow. The heat of growth is sufficient to melt a chamber sufficient in size to permit the flowers reaching full perfection, in spite of their icy environment. All plants which live through the winter store up food material within their tissues, upon which they draw for early growth. The utilization of this food material (starch and sugar) is chemically similar to combustion, and is always accompanied by the evolution of heat. In certain cases, therefore, spring pruning may mean simply the conservation of energy, and the tree may have enough food material left after blooming to enable it to set fruit. Certain varieties of plums are frequently induced in this way to set fruit, and it is probable that much of the increase in productivity commonly attributed to spring pruning is brought about in this way.

Showed Up the Value of Orchards.

According to the reports of some enterprising parties who are making a business of renting orchards, the articles detailing the results of "The Farmer's Advocate" orchard demonstration work have increased the value of Canadian orchards several hundred thousand dollars. Among others who have interested themselves in renting and improving orchards as a commercial proposition, are a quartette of wide-awake men in Essex County, namely: A. McKenney, J. O. Duke, T. S. Biggar, C. N. Kramer. These men have secured options on about 75 acres of orchards, over half of which have already been closed. Their plan is to rent the orchards for a period of years, paying at the rate of \$10 to \$15 per acre per annum, some of the orchards being infested slightly with San Jose scale. Mr. McKenney admits our orchard articles compelled them to pay about \$5 more per acre than they would have otherwise been obliged to do, as every man they approached seemed to know about "The Farmer's Advocate"

work, and had ideas of rental value approaching the rate we paid, namely, \$33.33 per acre. However, the trouble is that some of the men who value their orchards at an increased rate when somebody approaches them with a proposition to rent and improve them, would not, if left to themselves, make any more out of their orchards than they have been doing. However, Mr. McKenney admits that our articles were probably the means of interesting him and his partners in the proposition they are undertaking, so that, on the whole, they are probably under obligations to the paper, after all.

Exporting Tomatoes Unprofitable.

Interest in the question of the possibility of a profitable trade being done in supplying Canadian tomatoes to the markets of Great Britain has never quite died out, and lately shows signs of revival.

It will be remembered that in 1897 a considerable quantity of tender fruits, including tomatoes, was shipped by the Dairy and Cold-storage Branch of the Dominion Department of Agriculture to London, Liverpool and Glasgow, with a view of testing the markets and determining the possibilities of the trade. The conclusions reached were to the effect that tomatoes could be landed, even with the facilities then available, in fairly good condition. Since that time, considerable progress has been made in the knowledge pertaining to refrigeration, handling and shipment of all kinds of tender fruit, and there would seem to be no difficulty at present in placing Canadian tomatoes of the right variety on the English market in good, sound, marketable condition.

But are the prices high enough at the season of the year when the Canadian supply is available to make shipments profitable? A satisfactory answer cannot be given to that question, as, at the present time, there does not appear to be a very promising opening for Canadian tomatoes in Great Britain.

While it is true that English and Scotch tomatoes are practically all grown under glass, and sell at high prices the greater part of the season, it is to be remembered that abundant supplies come in from other countries. The Channel Islands have a large export trade in tomatoes, which continues throughout the year: from November to October, grown outside. The season for Canary Island tomatoes is from November to May. But, besides these two sources of supply, there are shipments received from Lisbon, Belgium, France, Holland, Denmark and Spain, nearly all of which come in during September and October, and, in consequence, the price is lowest at that season.

Canadian tomatoes, if exported, would land just when competition is keenest and prices at the lowest point. They would have to compete with those from Lisbon, Belgium and France, selling at from 2 cents to 3½ cents per pound. At the higher figure, a 7-pound case of Ontario tomatoes would make 25 cents. It is assumed that, to have them land in good condition, they would have to be packed in single-layer cases holding from six to eight pounds each. On these, the expenses would be: Freight, St. Catharines to Montreal, 4c. per case; ocean freight, 9 or 10 cents; broker's charges for landing, delivering, etc., 5 cents; commission, 1 cent—a total, say, of 19 cents per case. This leaves net proceeds of 6 cents, f.o.b., packing-house—not sufficient to meet cost of package and packing.

It would seem, concludes the circular issued by J. A. Ruddick, Dairy and Cold-storage Commissioner, from which the above is condensed, that, under present conditions, the export of tomatoes to Great Britain would yield no profit to the shipper.

THE FARM BULLETIN.

"Stuck" by Reciprocity.

Editor "The Farmer's Advocate":

Being a farmer myself, I am very much surprised to see "The Farmer's Advocate" favoring reciprocity with the United States. Now, I would like to know how this is going to better Canadian farmers? Taking the products of the farm, let us see how it is going to affect them. You must know that pork prices have been higher in Canada than in the States for a number of years past, going as low as \$3.50 per 100 pounds on the hoof in Chicago during the last seven years. Eggs are very much lower to-day in the States than here; one Montreal firm bought several carloads in Chicago, at 8 cents per dozen, two weeks ago. There is enough butter and cheese in cold storage in the States to last another year, without making another pound. Therefore, with reciprocity, the Canadian farmer will have to take less for his pork, less for his dairy products, less for his eggs. Now, what about beef? It simply means this, the Canadian farmer will simply be in the hands of the American beef trusts, and will have to take what they want to give them.

The wheat-growers of the Northwest may get a little more for their wheat for a short time, but even that is doubtful. The Canadian wheat will be milled in the States, instead of Canada, and exported from the States, and the Canadian farmer will lose the wheat by-products.

The vegetable and fruit growers will certainly be hurt. Not only the United States, but all the nations in the favored nations' treaty, will be able to unload their surplus products in Canada duty free, while we will have to pay duty on our produce going into all countries but the States? In the face of all this, you say that reciprocity will benefit the Canadian farmer. All I have to say is this, that, if reciprocity goes through, Canadian farmers will get stuck good and plenty—and serve them right, too. The Canadian farmer is better off to-day than he has ever been, and this has not been brought about by free trade, but by protection. E. C. PARKER.

Sherbrooke Co., Que.

Standing Field Crop, Sheaf and Grain Competitions.

The Ontario Government has this year placed in the estimates a grant of \$7,500 for Standing Field-crop Competitions, to be conducted under the auspices of the Boards of the Agricultural Societies.

First.—Competition in each society limited to one crop. Field to be not less than 5 or more than 20 acres, but for beans or potatoes, minimum plot to be one acre. Any staple crop produced for seed in Ontario may be chosen, such as spring or fall wheat, white oats, barley, rye, corn, peas, alsike clover, alfalfa, red clover, potatoes or beans.

Second.—Only members of an Agricultural Society may compete, and that in only one Society, and fields must not be more than fifteen miles from headquarters.

Third.—Societies entering competition must notify Superintendent not later than May 1st. Not less than ten entries in any Society accepted, and competition limited to first 100 societies applying.

Fourth.—Secretaries must forward all entries on or before May 25th.

Fifth.—An entry fee of not more than \$1.00 may be charged by Directors of Societies. Each Society must offer at least five prizes, of \$15, \$12, \$10, \$8 and \$5. Of this amount, the Society must furnish \$20, the remaining \$30 to be a grant from the Government.

For the first, second and third prizewinners in field competitions, there is a chance of winning in a Sheaf Exhibit, and also in exhibit of two-bushel sacks of grain, at the Canadian National Exhibition, Toronto. For these exhibits, the Province has been divided into three districts—North, East, and West—and to each the same amount of prize-money is offered. First, second and third prizes are to be given in both exhibits, for fall wheat, spring wheat, white oats and barley.

Total prizes offered in sheaf exhibit, \$228; in exhibit of cleaned grain, \$288.

At Ottawa and Guelph Winter Fairs, first, second and third prizewinners in field competition have opportunity, also, to compete in two-bushel seed-grain competition.

All entries for sheaf and grain exhibits to be made to Supt. J. Lockie Wilson, Parliament Buildings, Toronto, by August 1st, 1911.

To Better the Rural School.

The teacher of every rural school, and every rural-school board, in Ontario, should at once secure, if they have not done so, from Prof. S. B. McCready, of the Ontario Agricultural College, Guelph, a copy of the recently-issued bulletin for schools and teachers. It presents a plan for rural-school improvement, carefully worked out by the Schools Division of the Experimental Union. In 1909 there were 117 schools co-operating in this work, and last year, 237. This year should see a much larger increase. Arrangements are made to send out seed packets for school gardens, seed grain for small experimental plots, shrubs, vines and tulip bulbs for school-ground improvement; also tree and agricultural seeds and forest-tree seedlings where they can be used. Full directions as to how these may be secured are given with the bulletin, and also information regarding making useful additions to public school libraries. Many of these materials are free, and include a beautiful engraving, suitable for framing, of the Ontario Agricultural College. Readers of "The Farmer's Advocate" interested should lose no time in writing Prof. McCready on this subject, for spring is coming, and with it a fresh chance to make the section school what it ought to be—a thing of beauty, and of more real use to rural life.

The Sayings and Doings of "Donald Ban." The Boy on the Farm—Farm vs. Railroad Life.

By Peter McArthur.

"Why weren't you in the village to-day?" Donald Ban asked his son. He himself had just returned from the post office, and was bubbling over with laughter.

"There was nothing to take me down there that I know of," replied his son.

"O, John, John! I am afraid you are neglecting your opportunities as a farmer. You are not getting out of this farm life all that is in it."

"Why, what was going on?"
"All the young bloods in the country were there to-day, and you were not with them. I am afraid you are missing your chances."

"What was the matter?"
"Well, as nearly as I could make out, they were having a meeting of the Kickers' Club or a gathering of the Sore and Sorry Society. Anyway, it was a new feature of country life, and you were not taking part in it."

John simply grinned and awaited developments. He knew that his father could not hold himself in very long. After feeding and blanketing the old horse, Donald Ban resumed:

"All the prosperous young farmers in the country were there, and a few of the old fools, like Bill Hyse and Al Ketchum. They were having a meeting in the town hall to make arrangements for hiring a good lawyer to fight the payment of their notes in the last stock game they got caught on. I wasn't at the meeting, though it would have been worth the twenty-five dollars it cost to be a voting member. It must have been fine to listen to the talk."

"What stock game had they been caught in?"
"I am not sure, but I think it was something like a scheme for canning the waste sunshine of Ontario and shipping it to the Old Country, to be used in scattering the fogs. The main thing about it was that it would pay thirty per cent. dividends, and every farmer would have a canning plant on his own farm. It is a funny thing to me how farmers who save their money penny by penny, and wouldn't take a mortgage at five per cent. on the Bank of England without consulting a lawyer, will snap at any get-rich-quick scheme that offers them thirty per cent. The promoter who goes around with nicely-printed stock certificates of that kind finds no trouble exchanging them for old-fashioned, hand-made notes that are as good as gold in any bank in the country."

"Didn't you ever get caught, father?"
"Not since the stock game began. I cut my eye-teeth on what they used to call 'Pictor-ess-kwee Canada,' lightning-rods and tin squirt-guns that were sold for force-pumps. I signed one order for a force-pump, and it turned out to be an order for a crate of them. They sent me thirty-six, and if you ever happen to be digging in the west corner of the barnyard, you may find thirty-five of them, unless they are all rusted away by this time. I knew I was caught, and didn't squeal about it."

"I tell you it was great listening to those fellows at the post office to-day. They were mostly fine-looking young fellows, with fur collars on their overcoats, and they talked loud about their troubles, as if they were business men who had made a little mistake. Some of them spread out their shoulders, and talked about what they would do to the agent if they ever caught him. I tell you it is a great thing to have whiskers like mine. You can listen to talk like that without letting the fellows see that you are laughing at them."

"But, say, that gent must have been a pretty slick one. Al Ketchum was telling how he was milking his cows when he landed at his place. He seemed to know all about Holsteins, and how much the best strains should give. He had nephews in Illinois who were in the cattle business, and he quoted cow records till Al thought he was the most interesting fellow he ever met. Though he was not a farmer himself, he was the farmer's friend, and he didn't see why those greedy city men should get all the good things that are going. The farmer gets most of the sunshine there is, and if a scheme is on foot to can sunshine, why shouldn't the farmer get right in on the cement floor. No reason in the world! Of course, he knew that even the most prosperous farmers didn't always have cash on hand, but, bless you, he was willing to take a note for any reasonable length of time you cared to mention. Of course, Al signed a note—who could help doing it for a nice man—durn his picter. He gave Al such a pretty stock certificate that he thought of having it framed or of putting it with the Christmas cards and photographs so that visitors could see it. But, of course, it was too precious for that, so he put it in his big red morocco purse in the top drawer of the bureau. And the slick gent went and discounted the note at the bank, and a lot of others, and then went away

to hunt for the North Pole, or something, and forgot to leave his address.

"Bill Hyse felt particularly sore. He had started in by making up his mind that he would have nothing to do with the scheme. He listened while the agent worked him up on his favorite subject, Shropshire sheep. They discussed the best time in the winter for shearing them so that they would have the right kind of fleeces at show-time, and how to plump them just before they were to be examined by the judges. Even when he switched to hens—Bill's other weak point—and told him that the ink the Chinese laundrymen use is better than any other kind for touching up feathers that are off-color on Brahmas, Bill kept on hardening his heart. But after the man left, and Bill got thinking over what he had said, he got to thinking that he had thrown away a good chance, and that night he went to the village and looked him up. Before he left him, he had signed a note and got a nice certificate that he kept where he could take a look at it once in a while, and even give the children a peep at it when they promised to be good."

"Every one of the fellows had much the same kind of a story to tell. The agent had talked to them all on their hobbies, and made them swell out their chests and feel important. Judging from what I heard, he must have been the president of an agricultural college who had gone wrong, or the editor of a farm paper who had gone in for high finance."

"If he had come here and told you a few good stories, he would have got you, too," said John.

"Perhaps so, but I have had so much fun with agents who came to fleece me that I am afraid I have a bad name among fellows of that class. Someone must have told him that he would be wasting his time if he ever came after me."

"I notice that none of the patent-medicine pedlars go by without calling to see you."

"Now, don't start an argument about that," said Donald Ban, indignantly. "I have been taking care of my own health for the last fifty years, and I guess I know what is good for me as well as any doctor."

John grinned and dropped the subject. After a few grunts and growls, his father resumed his original theme.

"I'm sure I don't know what has got into the farmers, anyway. There isn't a farm in this part of the country that could not be doubled in value by needed improvements. They could re-invest their profits in their land for many a year to their profit, and it would yield them many times what come, and it would yield them many times what they can get out of it in the banks or in speculation. Tile drains, good fences and good buildings. The tile drains, good fences and good buildings never fail to yield a good return on the money put in them, if a man is working his farm as he should. Besides, when he invests his money in his farm, he knows where it is. All the good investments in business go nowadays to the men who have enough capital to control the whole thing from the start. The small investor can count himself lucky if he ever gets out whole, leave alone making dividends. As far as I can see, the stock investments that come the way of us farmers are all alike, whether they are gold mines or industrial enterprises. Mark Twain described a mine as 'A hole in the ground owned by a damned liar,' and a modern corporation has been defined as 'A body of men wholly surrounded by water.' We farmers need have nothing to do with either so long as we have land that can be worked up to many times the value it has now. But if a man feels that he must invest, let him put his money in something sure that pays a reasonable interest. A lawyer once told me, and I believe that he was right, that no investment that yields over five per cent. is really safe. When you begin to go after more, you are speculating, and if you put your money into anything that offers over ten per cent., you are almost sure to lose. Yet people grab at stock in schemes that promise twenty-five or thirty per cent., or even more. But there is no use talking much about it. People have always done that sort of thing, and I suppose they always will, and the funny thing is that the people who go in for such fool schemes the quickest are those who have earned their money the hardest and have saved it the most stingily. Still, John, I am sorry that you were not with the fellows at the meeting to-day. Such a lesson early in life would be good for you, and I am not sure but some of these fleecings that farmers get do them good. It fleecings them together to talk things over, and clubbing together to fight swindlers like this one may in time teach them the value of co-operation. Heigho! It's a funny world we live in."

Whereupon he put on his glasses and began to read the flaring advertisements in his favorite daily, which offered just such stocks as he was condemning; and, in all probability, he will keep on reading them till some fine morning he sees something that appeals to him as being special and safe, and he will proceed to lose some money, just like the rest of us.

Editor "The Farmer's Advocate":

I have seen so many articles in your paper regarding the extraordinary chances of the boy on the farm, and but lately have seen a comparison of the boy's chances in life on the railroad vs. farm life, and I would like to say a few words along this line.

While I believe a few—probably ten per cent.—farmers' sons have a good chance of a comfortable home of their own by the time they are 35 or so, I wish to say that in many cases the boy taking up with railroad life would have equally as good a chance, if not better.

I can speak the truth about myself. I am 25 years old, and have almost nothing. I have worked steadily on a farm since I was fourteen. I would yet have to do so for fifteen years, at a wage of \$250 a year, saving in those years about \$2,500, to make it safe to start on a 50 or 100-acre farm. I would then be forty years of age. Now to return to the facts concerning railroad life. I would earn, if I were fireman, an average of \$80 a month, at least, on a railroad (allowing for no promotion and increase of salary up to \$150 a month), which would mean \$960 a year. Allowing expenses to the extent of \$310 for board and clothes, would leave \$650 clear, which, in five years, would amount to \$3,250—just \$750 more in five years than an average farm boy could save in fifteen years.

Now, I think any fair-minded person would say that the comparison of wages and expenses just made favor the farm side, rather than the other, as railroad men save twice \$750 more often than do farmers' sons save twice \$166, with board.

But I hear farmers say, "I wouldn't risk my life two hours on a railroad, let alone two years." But do we not, as a Christian people, believe that, while actively engaged in life's duties, the Almighty calls each one away when He sees best, and, therefore, we are going to live as long in one sphere of life as in another?

Others may say, who wish to uphold farm life to the extreme, that you must have seen farm life through an unusual telescope. I maintain, however, that I am in quite an equal, if not in a better position than thousands of farmers' sons. I am an only boy, and my father owns a farm of 140 acres, of more than average value. Another will say, you must have been awfully wasteful to have nothing at twenty-five years of age. I have been paid \$200 a year since I was twenty-one, but that would make no material difference to the comparison, as one would but have to start counting railroad earnings from the time one was twenty-one years of age.

I don't find by any means the chances that are talked of so often in papers for farmers' sons. It means for them to either earn a living elsewhere, or a chance to have a home of their own by the time they are forty, or, mayhap, lie around waiting to share in property at the death of their parents, which, to my mind, is a heathenish custom, often seen among farmers, especially. Now, this is a tough letter on farmers, but it is as I see the farmers' sons' life and hopes. If it is permissible to publish such opinions (I doubt much if it would be considered correct in a farmers' paper, which is often more for cheering the farmer than for giving him wisdom; by this I mean not your paper, dear editor, but all literature pertaining to farm matters), you may, and I hope that, instead of being another pebble on the seashore, to cause boys to leave the farm, it will induce farmers, as a body, to think a little more, and act, to lift farm life to a higher plane than it has yet attained.

FARMER'S SON.
Dufferin Co., Ont.

At the New Brunswick Farmers' and Dairy-men's meeting, held in Fredericton recently, a resolution was adopted with regard to the Dominion grant of \$50,000 in aid of agriculture, which has been coming to the Maritime Provinces once in four years. This resolution set out that, in the opinion of the Association, much greater good would accrue to the agricultural industry in those Provinces if a more even expenditure of the grant were made; and, therefore, that application be made to the Minister of Agriculture to change the present system of making the grant to the Provinces once in four years, and, instead, dividing it annually among them, paying \$6,000 to Nova Scotia, \$6,000 to New Brunswick, and \$3,000 to Prince Edward Island, to be paid to the Society holding the Provincial show each year. The meeting seems to have overlooked the fact that the amount is \$50,000, not \$60,000.



The Tale of the Pioneers



In the "Pioneer Stories" submitted for prizes in "The Farmer's Advocate" competition, there was a similarity of incident and experience that made it very hard for the judges to arrive at a decision. All were interesting, but practically every story covered the same ground. Almost every one began with a description of the wearisome trip across the ocean, lasting from four to seventeen weeks, and then went on to describe the journey into the wilderness to the new home. In all of them, with only slight variations in detail, were descriptions of the building of the log houses and barns, the clearing of the land, and the hardships endured before the country was settled and ordinary conveniences could be secured. Apparently, all the early grist-mills were located in the most inaccessible places, for in every case the pioneers had to carry their wheat, often on their backs, from seven to forty miles to be ground. One interesting feature of these stories is the constant reference to the terrors endured by the first settlers on account of the wolves, and, strange to say, the evidence tends to prove that these terrors were groundless. In his "Manual of the Vertebrates of Ontario," Mr. C. W. Nash says regarding the wolves: "We sometimes see in the newspapers accounts of attacks upon travellers by these animals. These are pure fiction. That the European wolf, when pressed by hunger, will sometimes attack a man, is no doubt true, but so far there is no authentic case known where a wolf attacked a man in this country." The pioneer stories submitted in the competition bear out this statement. Although all of them speak of the constant howling of the wolves and the fears of the settlers, not one gives an incident of anyone being killed, injured or attacked by wolves. Apparently, the howl of the Canadian wolf was much worse than his bite. It is also to be borne in mind that the recollections of circumstances and conditions occurring, perhaps, half a century ago, while correct in the main, may not always be mathematically accurate. No two persons will give a similar account of something that happened on the street yesterday, because their viewpoint, faculties of observation and memory do not correspond. Peter McArthur, with whose sketches our readers are familiar, takes an intense interest in pioneer history, and, in delving through the manuscripts, he observes that, though the stories were so similar in character and merit, all differed in some respects. Each contained some incident or description that cast its own peculiar light on the lives of the pioneers. In order that these may be put on record, the most notable have been selected for publication. Taken together, they probably cast more light on pioneer days than could the experiences of any one person. Here are a couple of characteristic glimpses from the sketch submitted by Wm. G. Hislop, Stratford:

"The good man at last tackled a maple two feet through. His method was to cut round and round, which resulted in the tree falling anywhere, just close to the shanty site. However, by main strength, seasoned with a good deal of perseverance, the spot was cleared, and real building begun. Buck and Bright" (all pioneer oxen appear to have been called Buck and Bright) "must now play their part. Not many logs were drawn when the yoke broke. The yoke made to take the place of the one broken was a 'peach.' It would make a fine exhibition to-day."

"As there were children in the house, the want of milk was beginning to be felt. After a good many attempts, the father succeeded in getting a cow. This addition to the farm stock caused some anxiety as to feed for the winter. Some rough hay was secured from a beaver meadow a mile distant, but the most succulent food obtainable in those days was the browse of the nearest elm after it was cut down."

"Two pigs were procured during the summer, being enclosed, of course, in a log pen. On many occasions it was hard to tell whose claim came first—the bear's or the settler's."

"As money was still scarce, economy must be practiced. It was no uncommon thing to see children going to Sunday School barefooted. Others, to save their shoes, would carry them until near the meeting-house, and then put them on returning home, the same thing would be repeated."

Thomas Adams, of Howlett, writes describing the journey into the wilderness with his parents: "They were taken from Fort Erie to Black Rock by what was called a horse-boat. It was an open boat. There was a horse on it, hitched to a post. He stood on a large, flat wheel. When he began to move, the wheel moved around under him. That was the power that propelled the boat across to Black Rock."

Here is a memory of the Rebellion of '37:

"We had a neighbor by the name of Carey, who was a captain of the militia. He was stopping with a company of men at a hotel on the Longwoods road, near where the Village of Thamesville now is. A small band of rebels came there a little after dark and called the landlord out. They wanted to hire him to take them to Chatham. He went in and told Capt. Carey, who was outside. The Captain went out alone. The leader was getting a drink at the pump, and the Captain went up and arrested him. He had a pistol, and shot Captain Carey; then they all ran. Carey's men came out, but the rebels could not be seen in the dark. The Captain died the next morning."

"Deer were very plentiful, and used to run among the cows. Mr. Fancher had an old horse, which he used to put a cow-bell on and ride in the woods after the cows. He always took his rifle with him, and put an old harness on the horse and took a whiffletree and chain. The deer being used to the bell, he could get up quite close, and he would shoot them from where he sat on the horse. I have seen him come home with three deer dragging behind the horse. Once he trapped two wolves—a male and a female. He killed the male wolf, but the female he took home and put her in a hollow buttonwood log. Some of these logs had a hollow as large as seven feet in diameter. He took one of these logs, about nine feet long, and set it on end over the wolf, and had a ladder on the outside that he went up to let her feed down from the top. He kept her there till she had seven young ones. Then he killed them all, and got the bounty of \$7 a head on the lot, making \$63."

Alice Gregory recounts this incident in the life of Roger Hartford, a pioneer of York County. He had tried his fortune in New York before coming to Canada:

"He learned that the British Government gave one hundred acres of land to every British subject producing a certificate which stated that they had left England for no crime? This news again revived their hopes, and they decided to proceed at once to Upper Canada. A few days later they were on their journey. It was a long tramp of 500 miles over bad roads and rough country. Roger footed it all the way, while his wife and children took turns, sometimes walking and sometimes riding in the wagon which conveyed their goods. At the end of three weeks they arrived at Sackett's Harbor, seeing, on the way, the great falls of Niagara, crossed Lake Ontario, and landed at York, Upper Canada, now the City of Toronto. At once he applied to His Excellency the Governor for a grant of land, and obtained one hundred acres of land twenty-five miles from York."

It is pleasant to record that this man "lived all his life on the farm he broke up and cultivated, and died at the age of ninety years, having accumulated a fortune of over \$80,000."

In the sketch of Mrs. John McKay, written by Mrs. M. McNeilage, of Darrel, something is shown of the old-time minister and school teacher.

"Her earliest recollection of a marriage was the wedding of a couple (now deceased). The missionary minister, coming from London on horse-back, on this occasion, lost his way in the woods. A couple of young men, guests at the wedding, were sent to find him, and when he found he was on the right path, he whipped up his horse, and, by the time the boys arrived, the ceremony was over."

"The first schoolhouse was, of course, a log one, built in the year 1814. It had a door and one window, and fireplace for heating it, with logs split for seats, school being first three months, and then six months, a year. The

teacher, a graduate from a university in Scotland, received the salary of \$50 per annum.

* * *

The sketch of the experiences of Mrs. Thomas Humble, as told by Lizzie Humble Darling, of Brinsley, Ont., is full of interesting details of pioneer life and conveniences. To begin with, here is a sketch of "Granny": "The little, bent form in her shoulder shawl, black ruffled cap, a few stray gray locks peeping under the ruffle, and she enjoying her pipe."

"The one-legged bed seems to be quite a novelty. Two poles, about four inches in diameter, the length and width of the bed, flattened on one side, were put into holes in the logs from the corner and into the one leg. Another pole was pinned to the logs at the back, so that poles could be laid across and over these. Cedar and hemlock branches formed the tick until they had grown wheat to get straw. Homespun blankets covered the bed, and it was very comfortable, after all."

"A table on the same principle was made in another corner; benches, with basswood bark for seats, made excellent chairs. Wooden pins were driven into the logs at a medium height, and flattened poles laid on for a shelf. As many shelves as were needed could be made, and these made a very good cupboard. Underneath was a large box for eatables."

"Yeast was fermented from bran. About two quarts of boiling water was poured over one quart of bran and let stand a couple of days; then it was strained. This was used until hops came on the scene."

In closing her sketch, the writer touches on what was perhaps the greatest hardship endured by the pioneers:

"Can we imagine the loneliness, weariness and homesickness that prevailed in the hearts of these pioneers, so far from home and loved ones, starting a new home in a new country?"

* * *

James Dingwall, of Williamstown, Ont., writes: "The hay was cut with scythes, and shaken out with wooden hand-forks. As far back as I can remember, we would gather up the hay with wooden hand-forks and hand-rakes, and coil it, and then stack it. The old barns were small, and were kept to store away the grain, which was cut with sickles and bound into sheaves. The threshing was done with a flail. I shall never forget, when I was going to school, how I used to have to thresh with the flail morning and evening, and do chores. A great deal of the threshing was done by French-Canadians who came from Lower Canada with their flails to thresh our grain and fan it with a hand fan for the tenth bushel. They came in the fore part of the winter, and, when through threshing, would go home. Then they came with their trances (sleighs) loaded with salt and fish, which they disposed of. Then they would take home the toll of the grain they had threshed."

Thomas Davidson, of Wingham, gives an idea of what the old-time hogs that ran wild in the woods were like:

"A neighbor went to get a pig. He had two bulldogs and a gun. There were twenty-eight in the herd. They formed a circle, with heads out, mouths open, and a mane of bristles up the middle of their backs. They defied the dogs. He shot one, and when the drove had dispersed, he got it."

* * *

Robert McLaren Miller, of Mt. St. Louis, gives an excellent account of the preparation of pioneer lumber:

"The first lumber that was cut in the Township of Medonte was done in the saw-pit. It was a long, narrow pit, dug in the ground to the depth of a man standing in it. There were two small pieces of timber put across the pit. When a pine log was hewed to a square, it was placed over the pit and chalk-lined on the upper and the lower sides to the thickness of the board they wanted. With one man standing on the log, and the other down in the pit, they kept the long saw going up and down, following the marked lines, the cutting being done with a downward stroke."

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This method of cutting lumber must have been used to some extent through the country, for there were saws made for cutting lumber this way. They had a cross wooden handle at each end, and the teeth were like those of an ordinary rip-saw."

Describing the life of Mrs. Annie Bartlett Robinson, Mrs. J. H. Taylor, of Bobcaygeon gives this description of a trip through the woods:

"Mrs. Robinson and her two brothers, boys of sixteen and ten, respectively, came to Verulam to prepare for the coming of the rest. They walked the whole way from Peterborough by a route which must have been fully thirty miles, much of the way a mere blazed trail through the bush. In one place they waded water for nearly a mile, and, be it remembered, each carried a load of clothes or provisions. Night overtook them in a big swamp, which they crossed on fallen logs, guided by a little dog. The writer knows that swamp, and would not care to cross it even by daylight on fallen logs, and she does not wonder at Mrs. Robinson's statement, 'I was wet to the waist, my dear, from slipping off the logs, and when we came to an old log shanty, where you turn up to go home, we were so thankful to get shelter. There we were, the two boys and I, without fire or light, but glad of the shelter. I was too tired to feel. I just laid down and slept, but we never would have found our way without the little dog. He scented human footsteps ahead of us, and would run on and whine until we came up, and then he would go on again.'"

In telling the story of Dugald Fraser, J. E. McIntosh, of Glengarry, touches on the old-time life in the lumber woods:

"I've spent nigh forty winters in the bush. I went with a team at first, but after a while I took to the broad-axe. Many a month and my bread and pork. If we wanted any tea, we had to buy it for ourselves. There was no word of pie and doughnuts like they say there is in the shanty now. We took our piece of bread and a chunk of fat pork, and went and sat down in a corner and made the best of it, and we would come home in the spring good and fat, too."

When asked who attended to the work at home, the pioneer replied: "Oh, the old woman. I've known her to do the chores for me and my brother Donald who was up in the shanty with me all winter, and she had to lift the water for all the stock with a bucket and pole. Between times she would be spinning and weaving, and making clothes for myself and the youngsters. We did not eat or wear much but what came off our own farm, and I will often be thinking that the eating was as good, and the wearing was better, than it is now. And it was not all for making money, either. We had time for many a visit among the neighbors."

The article submitted by Maud Benson, Picton, Prince Edward County, shows the hand of the skilled and sympathetic hostess. From it we select the description of the pioneer fireplace:

"The fireplace was the center of not only the family but also of the social life of the people. Heat and light it supplied. Its great blazing back-log and pine fore-sticks rendered dim and inconsequent the 'witch' rush-light or tallow dip. The great black throat was necklaced by an iron crane, ornamented by trammels and hooks, and dinner pot or singing blackened kettle, and perhaps flanked by bake-kettle and shining reflectors. Jealousy was the altar-fire of the home guard, for all did not possess flint and tinder or a lens, and if the covered fire in the fireplace proved to be not alive in the morning, the head of the house must needs pack himself so distant, to borrow a few coals."

Sandy Ferguson, whose life-story is told in an interesting manner by Mrs. Robert White, of Clarendon Station, Ont., used to emerge from the forest "twice a year, spring and fall, at fair time, and would trade his potash for tea, cotton, sugar and tobacco. He tanned deer skins and made mits and meccasins for himself and children for winter, and would take what he did not need and exchange it with the tanner for leather, and have it made into boots."

There is a passage in the pioneer sketch by Mrs. W. T. Johnstone, of Ulverton, Que., that should be called to the attention of Prof. Klinck, of Macdonald College. Speaking of Weber Reed, who settled at Longue Point, Wickham, she says: "Amongst his belongings, he brought some seed corn, which he planted, and, as it has been still growing and grown each year by the family, Messrs. E. Reed and Tenholm Reed, grandson and great-grandson, had the pleasure of receiving first prize and special prize for it at the annual exhibition this fall, 1910." Here is evidently a

strain of corn, with a history, that might be developed into something profitable.

Donald Clarke, of Morriston, Ont., writes: "Perhaps you would like to hear how we got our first fowl. My mother got Mr. Kennedy to go to a man who kept fowl, and he happened to be a German, and could not understand a word of English or Gaelic, so Mr. Kennedy just stood up on a stump and flapped his arms to his sides, and crowed, and by that the German knew what he wanted, and he came home with two hens and a rooster."

G. C. Caston, of Craighurst, gives many interesting reminiscences of pioneering in Simcoe County:

"A curious fact with respect to the settlers along the Penetang road was that very few of them had been farmers before coming here. My father was a carpenter; one of our near neighbors was an iron-moulder from Dundee; another a weaver from Glasgow, and so on; while many of them were veterans who had fought under the Iron Duke, and had helped to drive the armies of Napoleon out of Spain."

In the story by Mrs. Robert Milliken, of Lucasville, there is a touch which shows that even in those stern days pride and ornament were not unknown:

"We had oxen. I remember Buck and Bright—great strong fellows. My father got brass knobs and screwed them on their horns, 'so that they could not hook us,' he said, but I often thought it was to add to their fine looks, as he



Col. H. Montgomery Campbell.

President New Brunswick Farmers' and Dairymen's Association, 1911.

was proud of them. He made their yoke and bent the wood for the bows, after steaming it over a large 'cooler' or kettle in which mother boiled soap every spring."

Mrs. William Ransom, of Fergus, tells, among other things, about how the pioneers wound strips of basswood bark around their shoes to hold them together. She also told about grinding wheat in a coffee mill to make coarse flour.

It is a matter of regret that these interesting narratives could not be printed in full, for everything that pertains to Canada's First Brigade is of interest. This very appropriate name was applied to them by William Johnson, of St. Mary's, from whose poem with this title we shall quote a couple of stanzas:

"I dwell with them in the lonely woods,
Where maples, beeches and cedars grow,
And the whip-poor-will at evening, still
To the dismal shades, wails notes of woe.

"Think well of Canada's First Brigade,
Reverse the spot where their bones are laid.
Right well they fought, then breathe one thought
In memory of the First Brigade."

G. G. Publow, Chief Dairy Instructor in Eastern Ontario, and for 16 years connected with the Eastern Dairy School, at Kingston, of which he has latterly been Superintendent, has, at his own request, due to ill-health, been relieved of the superintendency of the school, in which capacity he is succeeded by L. A. Zufelt, Instructor in Buttermaking. Mr. Publow was presented by the staff and students with a gold-headed cane. He still retains his position as Chief Instructor.

Sale of N. Dymont's Ayrshires.

To reduce his large herd of Ayrshires, N. Dymont, of Cappison's, Ont., put 30 head under the hammer at Hamilton, Ont., March 9th, as advertised. Quite a large number of buyers were present. The local buyers allowed those from a distance to get most of the best offerings. Geo. E. Fisher, of Chatham, N. B.; Hector Gordon and P. D. McArthur, Howick, Que., were the heaviest buyers. On the cow Floss Morton there was some keen bidding, but Gordon laid claim to her from the first. Much of the stock was from Record of Performance cows, or had registered in the test. The animals were all true to type, and were bred for business. The following is the list of sales over \$70:

FEMALES.

Fairy of Hickory Hill; M. Schwitzer, Ridgeport, Ont.	\$195
Empress; Hector Gordon, Howick, Que.	100
Jess Morton; Hector Gordon	120
Floss Morton; Hector Gordon	300
Duchess of Rockton; P. D. McArthur, N. Georgetown, Que.	125
Queenie; Geo. E. Fisher, Chatham, N. B.	165
Susie of Hickory Hill; H. Gordon	180
Pet of Hickory Hill; P. D. McArthur	195
Flossie of Rambo Creek; R. R. Ness, Howick	175
Spotty of Hickory Hill; Geo. E. Fisher	140
Primrose of Maple Lane; W. G. Grenzi-back, Hickson, Ont.	150
Jewel of Hickory Hill; Geo. E. Fisher	105
Edna of Hickory Hill; J. B. Ross, Streetsville, Ont.	75
Forget-Me-Not of Hickory Hill; G. E. Fisher	170
Jess of Hickory Hill; Hector Gordon	80
Non Excel of Hickory Hill; P. D. McArthur	90
Minnie of Hickory Hill; T. B. Ross	85
Heifer calf from Forget-Me-Not (2 weeks); P. D. McArthur	90

MALES.

Duke of Hickory Hill; A. Merryweather, Richburg, Ont.	\$ 75
Spry of Hickory Hill; Geo. E. Fisher	80
Jupiter of Hickory Hill; P. D. McArthur	180

Twenty-nine head averaged \$108; seven bulls, one and two years old, averaged \$62; thirteen cows and heifers averaged \$163; nine calves and yearling heifers averaged \$64.

S. J. McKnight's Shorthorn Sale.

The auction sale of Shorthorn cattle, property of S. J. McKnight, at Epping, Ont., on March 9th, was fairly successful, notwithstanding the very unfavorable condition of the roads. No fancy prices were realized, nor expected, and some of the offering went at less than their value, but fair prices were received for the majority. The sale was well handled by auctioneers Captain T. E. Robson, assisted by J. A. Myles. Following is a list of sales of \$75 and upwards:

FEMALES.

Blanche, 3 yrs. old; J. W. Patterson, Blantyre	\$140
Epping Queen, 6 yrs.; H. H. Thompson, Heathcote	105
Crimson Mayflower, 8 yrs.; Victor Bowes, Strathnairn	135
Viola, 2 yrs.; Thos. Mercer, Markdale	100
Alice, 2 yrs.; V. Hewgill, Heathcote	105
Gay Gem, 5 yrs.; John Julian, Heathcote	120
Roan Gem, 2 yrs.; F. Foster, Clarksburg	120
Clarabelle, 2 yrs.; H. H. Thompson, Clarksburg	102
Miss Eliza, 5 yrs.; J. A. Myles, Heathcote	170
Maid of Honor, 3 yrs.; Edward Fieghan, Clarksburg	80
Cuby Tee-Bo, 3 yrs.; G. McKenzie, Fairmount	95
Gay Torrance, 3 yrs.; Thos. Mercer, Clarksburg	95
Vera, 1 yr.; Fletcher Foster, Heathcote	95
Berna, 1 yr.; Thos. Mercer	75
Olga Gem, 2 yrs.; J. Myles	90
Blushing Gem, 1 yr.; P. White, Heathcote	85
Coquette, 3 yrs.; A. McGillivray, Collingwood	85
Miss Eliza 2nd, 2 yrs.; John Bailey, Banks	76
Miss Eliza 3rd, 1 yr.; W. G. Milson, Goring	75

BULLS.

Happy, 1 yr.; Thos. Mercer	\$110
The Tramp, 1 yr.; A. Knott, Epping	95
The Prodigal, 2 yrs.; Thos. Mercer	110

Movements of U. S. Cereals.

The Crop-reporting Board of the Bureau of Statistics of the United States Department of Agriculture estimates, from reports of correspondents and agents, that the quantity of corn on United States farms March 1st, 1911, was about 1,265,634,000 bushels, or 40.5 per cent. of the 1910 crop, against 1,050,865,000 bushels, or 37.9 per cent., of the 1909 crop on farms March 1st, 1910; and 953,100,000 bushels, or 38.3 per cent., the average for the past ten years. The quantity of oats on farm March 1st, 1911, was about 421,535,000 bushels, or 37.4 per cent. of the 1910 crop, against 363,159,000 bushels, or

36.1 per cent., of the 1909 crop on farms March 1st, 1910; and 317,985,000 bushels, or 36.4 per cent., the average for the past ten years.

Power for Farmers.

A bill to provide for the local distribution of electrical power has been introduced into the Ontario Legislature by Hon. Adam Beck, with the purpose of providing that any one or more of the ratepayers in a municipality that has not entered into a contract with the Hydro-Electric Commission, may apply in writing to the municipal corporation to obtain from the Hydro-Electric Commission a supply of electrical energy for the use of such ratepayers for lighting, heating and power purposes. Upon request of the municipal corporation, the Commission shall furnish an estimate of the maximum cost per horse-power of electrical current at the point of development, and an estimate of the cost of constructing and providing transmission lines. The Commission may also furnish estimates and specifications for the distribution lines to be built by the local corporation. Within a month after the delivery of such estimates, the council shall, at a special meeting, consider the statement and estimates furnished by the Commission, and, with the consent of the applicants, or such of them as may signify their desire to enter into a contract, the council may, without any further formalities, pass a by-law for entering into a contract with the Commission for the supply of the electrical power required by the applicants. The contract may provide for the admission, from time to time, of further subscribers, and may provide for the issue of twenty-year debentures of the municipality to meet the cost of construction and instalment. The amount payable by the applicants in each year for the power supplied them shall be sufficient to recoup the municipality in full of its annual charge, and, in default of payment, any amount due the corporation shall be entered on the collector's roll, and collected in the same manner as other taxes. The trustees of a police village shall, for the purposes of the Act, be deemed a municipal corporation, qualified to enter into a contract for power.

A New Record Jersey Cow.

The authenticated year's record of the Jersey cow, Sophie 19th of Hood Farm 189748, owned and tested by Hood Farm, Lowell, Mass., has given her second place only to Jacoba Irene, and is claimed as a new record for a Jersey cow commenced when under five years old. This record was begun January 1st, 1910, at the age of four years and eleven months, after freshening on December 25th, 1909, and was authenticated by the Massachusetts Agricultural Experiment Station at three different times by three different supervisors throughout the year, during which she produced 14,373 pounds 3 ounces milk, testing, on the average, 5.986 per cent. fat, showing her fat yield to be 854 pounds 13.7 ounces, equivalent to 1,011 pounds 5 ounces butter, 83 per cent. fat, allowing for all probable losses in creaming and churning—a record only eclipsed by Jacoba Irene's 1,126 pounds. Now, at six years old, Sophie 19th has had three calves, and in the three milking periods her total productions are 31,348 pounds 2 ounces milk, 1,821 pounds 00.3 ounces fat, and 2,154 pounds estimated butter. An accurate account was kept of her feed for her last year's record, and her milk, if sold at 10 cents per quart, would have made a profit of \$565.22.

Friends at Court.

As illustrating the somewhat biased attitude on the tariff question of those members of Parliament who have stock in companies enjoying tariff protection, Eugene Mason, speaking at a Grange meeting in Lambton County, recalled the story of how one of Lincoln's clients escaped conviction for stealing a pig. As the jurymen filed past the prisoner, the latter quietly remarked: "We must all stand together," and a prompt acquittal followed.

"What did you mean by standing together," Lincoln asked the client after the case was over.

"Every man of them had a piece of the pork," was the reply.

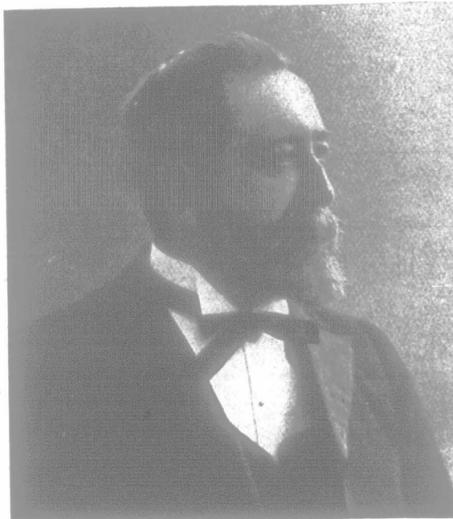
"That," added Mr. Mason, "is what is the matter with the men who frame our tariff laws. Too many of them have a piece of the tariff pork. That is why it is that 2,615 manufacturers have been able to control the fiscal legislation of this country."

An Act has been introduced by E. N. Lewis, M. P., at Ottawa, providing that no corporation or municipality shall take any water for drinking purposes from any stream or river which has had sewage or refuse put into it above the intake pipe, without first having said water sterilized. The proposed penalty is a fine of \$200 per day.

Retirement of Dr. Wm. Saunders.

The retirement, on March 31st, of Dr. Wm. Saunders from the directorship of the Dominion Experimental Farms marks the official close of a long, useful and honorable career in the public service of agriculture. Established in 1886, during the regime of Sir John Carling, then Minister of Agriculture, the Experimental Farm system was practically the creation and crowning life-work of Dr. Saunders, who, during the previous year, had made an exhaustive report, with recommendations, based on personal investigations in America and Europe.

A native of Devonshire, Eng., where he was born on Jan. 16th, 1836, Dr. Saunders settled in the publishing place of "The Farmer's Advocate," London, Ont., in 1848, establishing a business as a chemist, but early turned his attentions to natural science, horticulture and agriculture. In 1882 he became Public Analyst for Western Ontario, and aided in founding the Ontario Entomological Society, of which he was president for several terms, and editor of the Canadian Entomologist for 13 years. Still further discerning the value of organized effort, he became a member and president of the Ontario Fruit-growers' Association, in which he rendered splendid service, and began farming, with horticulture as a specialty, on his farm near London, about 1868. His knowledge of fruit led to his preparation of Canadian displays for international expositions, and, in conjunction with the results of his entomological researches, followed the publication of that standard work, "Insects Injurious to Fruits," which has gone through several editions. In 1880 he acted as one of the famous Ontario Agricultural Commission, which greatly extended his already accurate knowledge of Canadian farm conditions, and, as before stated, in 1885



Dr. Wm. Saunders, C. M. G., L. L. D.

was commissioned to report on the subject of experimental farms for Canada, resulting in the establishment of five the following year, the Central Farm, serving for Ontario and Quebec, at Ottawa, a branch farm at Nappan, N. S., for the Maritime Provinces; one at Brandon, for Manitoba; at Indian Head, for the Northwest Territories; and the fifth at Agassiz, for British Columbia. Another in Saskatchewan, and two in Alberta, have since been started, each with a local superintendent. Experimental and demonstration work, with a view to the improvement in quality, yield and earliness of cereal and other field crops, and of fruits and tree culture, have been the outstanding features of the remarkable development of these farms, which have become the admiration, not only of Canadians, but of visitors from all quarters of the world. Indefatigable thoroughness has distinguished all his work, and inspired the able staff of specialists who have been associated with him. Of late years, the work with cereals has been conducted by his son, Dr. Chas. E. Saunders. A special outgrowth of the work has been the distribution of information, by reports, bulletins, and letters to the press, and of samples of improved seeds to farmers, stimulating experiment and efforts at crop improvement in all directions. By his annual visitations, reading and correspondence, he kept himself in close touch with the progress of the country, and in sympathy with its development. His reports are rich in their funds of information and fidelity of detail. His work has attracted attention throughout the world, and he was honored as a "Fellow" and corresponding member of many of the most distinguished scientific associations and societies. His life has been full of arduous labors, and he richly deserved relaxation now that his physical strength is waning. In the spring he is to enjoy an extended rest in his native land, and he will

bear with him the best wishes of Canadian agriculture.

Quebec Stock-breeders.

The seventeenth annual meeting of the General Stock-breeders' Association of the Province of Quebec, was held in Montreal on February 13th. The General Stock-breeders' Association is a federation of the following societies: The Sheep-breeders' Association, the Swine-breeders' Association, the French-Canadian Horse Breeders' Association, and the French-Canadian Cattle Breeders' Association. In addition to prominent agriculturists, some 80 members were present. The report of the secretary showed that the gross receipts of the year amounted to \$9,647.62, and expenditure \$7,531.64, leaving a balance of \$2,115.98.

Hon. Sydney Fisher gave an outline of what will be done at the Experimental Farms which his Department bought lately in the Province of Quebec. The Ste. Anne's farm will serve to demonstrate how worthless land can be made productive. The Cap-Rouge farm, near Quebec City, will be used to make all kinds of experiments which may be of interest to that section of the country. It will also serve to demonstrate the profitableness of the French-Canadian cow as a cheap butter producer for the ordinary farmer.

The following officers were elected for the current year: President, Hon. N. Garneau, Quebec; 1st Vice-President, Thos. Drysdale, Allan's Coriers; 2nd Vice-President, Arsene Denis, St. Norbert Station; Secretary, Dr. J. A. Couture, Quebec.

The French-Canadian Horse Breeders' Association held its annual meeting on 14th February last, at the Queen's Hotel, Montreal. Robt. Ness was in the chair, and Dr. J. A. Couture acted as secretary. The demand for French-Canadian horses is very good; the fact is, that it exceeds the supply. Consequently, the prices are very remunerative. Steps are being taken by the executive to gather in two or three districts, especially in the Counties of Joliette, Berthier and St. Hyacinthe, as many mares as possible, so as to make these counties the principal breeding centers for that class of horses.

The following officers were elected for the current year: President, Joseph Deland, L'Acadie; Vice-President, Robert Ness, Howick; Secretary, Dr. J. A. Couture, Quebec.

The French-Canadian Cattle Breeders' Association held its annual meeting on the 14th February last, at the Queen's Hotel, Montreal. There were about 40 members present. A. Denis occupied the chair, and Dr. J. A. Couture acted as secretary. The secretary read a letter from the Chief of Dairy at the Wyoming University, Laramie, stating that a herd of French-Canadian cattle had been purchased some time ago; that the animals were doing very well, indeed; that the people thought they would be the best cattle for that country, and there would soon be a good demand for them.

Officers.—President, Arsene Denis, St. Norbert Station; Vice-President, T. B. Macaulay, Montreal; Secretary, Dr. J. A. Couture, Quebec.

Organizing Local Granges.

The farmers' delegation to Ottawa, emphasizing, as it did, the importance of organized effort, has given a decided impetus to the organization of local Granges throughout Ontario. Following is a brief report of last week's work, supplied by W. L. Smith: J. C. Dixon, of Maryboro, succeeded in organizing two Granges in Grey County, one at Varney, with 18 charter members, and one at Boothville, with 17 members. W. C. Good has organized a Grange at Mt. Pleasant, with 21 charter members. Arrangements are being made for meetings in Dufferin County this week, to be addressed by Col. Frazer and John Pritchard. Preliminary steps were also taken, looking to the organization of a Grange at Holstein.

In the Canadian Senate, on Wednesday last, consideration was given to the Government's elevator bill. The clause providing that the Commissioners shall reside at Fort William and Port Arthur was approved. It was explained, in answer to some objections, that the Commissioners had power to sit anywhere, but that, as they had to have headquarters somewhere, and as that point was the only one at which improper practices in mixing grain had apparently been carried on, it seemed the most suitable for the purpose.

The Grain-growers' Guide advises farmers to stop marketing their grain. The price of wheat on February 28th was 6½ cents per bushel lower than it was a month earlier, and oats in the same period had dropped in price 3½ cents. There has been a deep-seated suspicion that this drop in prices was due to manipulation by grain-dealers, but, whether that is the case or not, the paper says that the market certainly looks now as if it would pay farmers who can do so to hold their grain until after seeding.

MARCH 16, 1911



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THE TRADERS BANK OF CANADA

Capital and Surplus, \$6,650,000

MARKETS.

Toronto.

LIVE STOCK.

At West Toronto, on Monday, March 13th, receipts of live stock numbered 74 cars, comprising 1,342 cattle, 174 hogs, 1,198 sheep and lambs, 27 calves, 63 horses. Quality of cattle was generally good; trade slow; prices about steady. Exporters, \$5.65 to \$6, and one load, \$6.10; prime picked butchers', \$5.90 to \$6; loads of good, \$5.50 to \$5.85; medium, \$5.15 to \$5.60; common, \$4.90 to \$5.15; cows, \$4.50 to \$5.25; milkers, \$4.00 to \$7.00; calves, \$3.50 to \$8.50. Sheep, \$4.50 to \$5; lambs, \$7 per cwt. Hogs, selects, fed and watered at market, \$7.05, and \$6.75 f. o. b. cars.

REVIEW OF LAST WEEK'S MARKETS

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

Table with 4 columns: Category, City, Union, Total. Rows include Cattle, Hogs, Sheep, Calves, Horses.

The total receipts of live stock at the two yards for the corresponding week of 1910 were as follows.

Table with 4 columns: Category, City, Union, Total. Rows include Cattle, Hogs, Sheep, Calves, Horses.

The combined receipts at the two markets show an increase of 21 carloads, 49 cattle, 2,604 sheep and lambs; but a decrease of 1,503 hogs, 137 calves, and 29 horses, in comparison with the corresponding week of 1910.

Notwithstanding that receipts of cattle last week were light, trade was slow and comparatively dull, with prices lower all along the line, in the different classes.

Exporters.—Export steers for the London market sold at \$5.75 to \$6, or an average of \$5.91. For Liverpool steers, \$5.60 to \$5.80, or an average of \$5.69. On Thursday, 10 loads of exporters sold at an average of 8c. to 9c. per cwt. higher than the above prices, but the quality was better.

Butchers.—Prime picked lots of butchers', \$5.90 to \$6.10, on Monday, at the Junction, but at the end of the week \$5.90 at the top; loads of good, \$5.50 to \$5.80; medium, \$5.20 to \$5.45; common, \$4.50 to \$5.15; cows, \$3.50 to \$5.25; calves, \$4 to \$5; canners, \$2.50 to \$3.

Milkers and Springers.—Prices for milkers and springers were weaker. The bulk sold at \$40 to \$65, with a few extra choice at \$70 to \$75, but very few.

Veal Calves.—Prices for calves were firm, at \$3.50 to \$8.50, and a few of extra quality brought \$9 to \$9.75 per cwt.

Sheep and Lambs.—Prices at the end of the week were as follows: Ewes, \$4.60 to \$5 per cwt.; rams, \$3.75 to \$4.25 per cwt.; lambs, \$6 to \$6.60.

Hogs.—Market easy, at \$7.05 for selects fed and watered at the market, and \$6.75 f. o. b. cars at country points. Heavy hogs, over 220 lbs., 50c. per cwt. less than above prices.

Horses.—The horse trade was reported by Mr. Smith, of the Union Horse Exchange, as being about steady. Express and wagon horses are in good demand, and very scarce. The home demand, that is, the city and surrounding country, has been stronger again this week. Prices unchanged, as follows: Drafters, \$200 to \$225; general-purpose horses, \$150 to \$175; express and wagon horses, \$175 to \$225; drivers, \$100 to \$200; serviceably sound, \$25 to \$100 each.

BREADSTUFFS.

Wheat.—No. 2 red, white or mixed, 80c. to 81c., outside. Manitoba—No. 1 northern, 97c.; No. 2 northern, 95c.; No. 3 northern, 92c., outside points. Rye—No. 2, 65c. to 66c., outside. Peas—No. 2, 80c. to 81c., outside. Buckwheat—48c. to 49c., outside. Barley—For malting, 65c. to 67c., outside; for feed, 50c. to 55c. Oats—Canadian Western oats, No. 2, 36c.; No. 3, 35c., lake ports; Ontario, No. 2, 31c. to 32c.; No. 3, 30c. to 31c., outside. Corn—American new No. 3 yellow, 50c., track, Toronto. Flour—Ontario 90-per-cent. winter-wheat flour, \$3.25, seaboard. Manitoba flour—Prices at Toronto are: First patents, \$5.40; second patents, \$4.90; strong bakers', \$4.70.

HAY AND MILLFEED.

Hay.—Baled, in car lots, at Toronto, No. 1, \$12.50; No. 2, \$8.50 to \$10.50. Straw.—Car lots of baled, on track, Toronto, \$6.50 to \$7. Bran.—Manitoba bran, \$21 per ton; shorts, \$23; Ontario bran, \$22 in bags; shorts, \$24, in car lots, track, Toronto.

COUNTRY PRODUCE.

Butter.—Market steady, at last week's quotations. Creamery pound rolls, 26c. to 28c.; creamery solids, 22c. to 24c.; separator dairy, 22c. to 24c.; store lots, 17c. to 19c.

Eggs.—New-laid, 23c. to 24c.; cold-storage, 17c.

Cheese.—Large, 13c.; twins, 13c. Honey.—Extracted, 10c. to 11c. per lb.; combs, per dozen sections, \$2.50.

Beans.—Broken car lots, \$1.85 to \$1.90 for hand-picked. Car lots, on track, country points, \$1.50 to \$1.65.

Potatoes.—Car lots of Ontario, 80c. to 87c., track, Toronto; New Brunswick Delawares, 90c. to \$1 per bag.

HIDES AND SKINS.

E. T. Carter & Co., 85 East Front street, Toronto, were paying as follows: 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, 7c. to 8c.; calf skins, 11c. to 13c.; sheep skins, \$1 to \$1.25; horse hides, No. 1, \$3.00; horse hair, per lb., 30c. to 32c.; tallow, No. 1, per lb., 6c. to 7c.

TORONTO SEED MARKET.

Prices at which re-cleaned seeds are being sold to the trade: Alsike No. 1, per bushel, \$11; No. 2 alsike, \$9.60; No. 3 alsike, \$8.75; red clover No. 1, per bushel, \$10.50; No. 2 red, \$9.30; No. 3 red, \$8.40; timothy No. 1, \$7.20 per bushel; No. 2 timothy, \$6.75; alfalfa No. 1, per bushel, \$13.75; No. 2 alfalfa, \$12.25.

FRUITS AND VEGETABLES.

Apples, No. 1 Spies, \$5.50 to \$6; No. 2 Spies, \$4.50 to \$5 per barrel; Greenings, No. 1, \$4.50; No. 2 Greenings, \$4 per barrel; other varieties, \$4 to \$4.50 per barrel; onions, 90c. to \$1 per bag; carrots, 60c. to 70c. per bag; cabbage, \$1.50 per barrel; celery, per dozen, 60c. to 70c.; Florida strawberries, 40c. to 50c. per quart basket; mushrooms, Canadian-grown, 50c. per lb., wholesale.

Montreal.

Live Stock.—On the local market last week supplies were lighter, and there was a good attendance of buyers from outside points, such as Quebec and Ottawa. Owing to this, it is altogether likely that prices would have advanced had it not been that local butchers were not buying largely, this being now the Lenten season. Quebec buyers were taking bulls and heavy cows, while Ottawa bought several loads of steers. Choice steers sold at 6c.; fine around 6c.; good at 5c. to 6c.; medium at 5c. to 5c., and common at 4c. to 5c. per lb. Very choice cows sold at 5c. to 5c.; common ones bringing as low as 3c. per lb. The range for bulls was 4c. to 5c. Choice calves sold at \$12 to \$15 each, lower grades ranging down to \$4. Very few spring lambs arriving, and prices were holding high, being from \$9 to \$12 each. Yearling lambs sold at from 6c. to 6c. per lb.; old sheep at 4c. to 5c. The market for hogs was rather easy than otherwise, and selected lots sold at from 7c. to 7c. per lb., weighed off cars.

Horses.—Local dealers report that business has recently been confined to local purchases altogether. Prices steady. Heavy draft horses, from 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, \$100 to \$200 each; inferior and broken-down animals, \$50 to \$100 each, and choicest carriage and saddle animals, \$350 to \$500 each.

Dressed Hogs.—Sales of select stock, abattoir, fresh-killed, were made at 10c. to 10c., and country-dressed at 8c. to 9c. per lb.

Potatoes.—Market declined from 5c. to 10c. per bag last week. Green Mountains were costing 85c., carloads, on track, Montreal, these being sold over again, in the same position, at 90c., while grocers were paying \$1.10 per bag, in similar quantities.

Eggs.—Demand good; receipts showing very little increase. American eggs were still costing, laid down here, 21c. to 22c., it is claimed, and being sold at 23c. to 25c. Canadian fresh-laid eggs sold at 25c., wholesale, and No. 2 at 17c. to 18c. Some claim that the fresh-laid eggs are not all that is claimed for them.

Butter.—Continued cold weather and arrival of the Lenten season was doubtless responsible for the further advance in the price of butter. Practically no current makes now arriving. Held creamery, finest, sold at 26c. per lb., wholesale, while dairy rolls were firm, at 20c. to 22c.; tubs, 19c. to 21c.

Cheese.—There has been no interest in the market, although it will not be very long before merchants will be giving attention to the coming season's trade.

Grain.—Market for oats showed a fractional decline, corn being about a cent lower than the previous week. No. 2 Canadian Western oats were quoted from 38c. to 39c. per bushel, car lots, store; No. 1 extra feed, at 37c. to 38c.; No. 3 Canadian Western, at 37c. to 37c.; No. 2 local white, at 37c.; No. 3 a cent under, and No. 4 yet a cent under; No. 4 Manitoba barley, 49c. to 50c. per bushel, and No. 3 American yellow corn, 55c. to 56c. per bushel.

Flour.—Market was steady, at \$5.60 per barrel, in bags, for Manitoba first patents; \$5.10 for seconds, and \$4.90 for strong bakers. Ontario patents, \$4.75 to \$5, and straight rollers, \$4.35 to \$4.50. Millfeed.—Manitoba bran, \$21 to \$23 per ton; shorts, \$23 to \$25. Ontario bran, \$22 to \$23; middlings, \$24 to \$25; pure grain mouille, \$30, and mixed, \$25 to \$28. Cotton-seed meal quoted at \$37 to \$38 per ton.

Hay.—There has been no alteration in the market for hay for some time past. Demand good, and the turnover apparently satisfactory. No. 1 choice hay, \$11.50 to \$12 per ton; No. 2 extra hay, \$10.50 to \$11 per ton; No. 2 ordinary hay, \$9 to \$9.50 per ton; No. 2 extra hay, \$10.50 to \$11 per ton; No. 2 ordinary hay, \$7.50 to \$8 per ton, and clover, \$6.50 to \$7 per ton.

Hides.—8c., 9c. and 10c. per lb. for beef hides; 10c. and 12c. for calf skins, and 75c. to 80c. each for lamb skins. Horse hides sold at \$1.75 and \$2.50 each. Tallow steady, 6c. to 7c. per lb. for rendered, and 1c. to 4c. for rough.

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affords to farmers and others every facility for the transaction of their banking business

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SALES NOTES will be cashed or taken for collection.

Branches throughout Canada, including Toronto, Hamilton, Montreal, Charlottetown, New Glasgow and Truro.

Chicago.

Cattle.—Beeves, \$5.20 to \$6.90; Texas steers, \$4.40 to \$5.70; Western steers, \$4.70 to \$5.80; stockers and feeders, \$4 to \$5.85; cows and heifers, \$2.65 to \$5.90; calves, \$7 to \$9.

Hogs.—Mixed, \$6.95 to \$7.30; heavy, \$6.70 to \$7.10; rough, \$6.70 to \$6.85; good to choice hogs, \$6.85 to \$7.10; pigs, \$6.60 to \$7.10; bulk of sales, \$6.90 to \$7.15.

Sheep and Lambs.—Native, \$3 to \$4.90; Western, \$3.15 to \$4.90; yearlings, \$4.25 to \$5.85. Lambs, native, \$5 to \$6.40; Western, \$5.25 to \$6.45.

Buffalo.

Veals.—\$7 to \$10.25. Hogs.—Heavy, \$7.40 to \$7.50; mixed, \$7.50 to \$7.60; Yorkers, \$7.60 to \$7.70; pigs, \$7.45 to \$7.70; roughs, \$6.50 to \$6.65; stags, \$5 to \$5.50; dairies, \$7.25 to \$7.65.

Sheep and Lambs.—Heavy lambs, \$5 to \$6; handy lambs, \$5 to \$6.85.

British Cattle Markets.

John Rogers & Co., Liverpool, cable States and Canadian steers from 12c. to 13c. per pound.

BOOK REVIEW.

GAME AND FISHERIES.

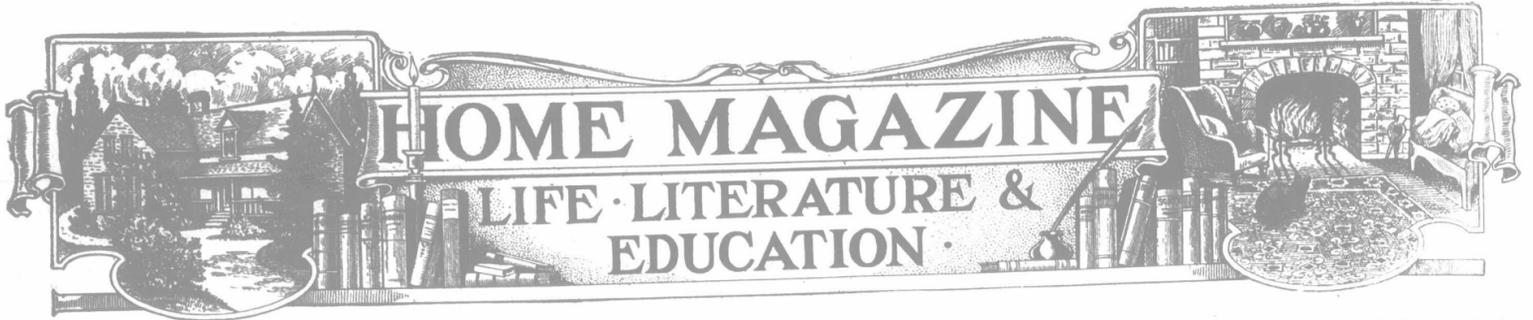
From the Minister of Public Works, Toronto, comes a copy of the fourth annual report of the Provincial Game and Fisheries Department, which everyone interested in the subject, from economic or sporting motives, should secure. It contains a wealth of information, and is admirably printed and illustrated, the color pages of fish and birds being particularly fine. This handsome volume proves that "blue books" can be made fascinating as well as useful.

ANIMAL HUSBANDRY LITERATURE.

A reference book, of service to students and teachers of animal husbandry, has been compiled and published by Prof. Charles S. Plumb, of the State College of Agriculture, Columbus, Ohio. It gives the titles of books, bulletins and reports, grouped alphabetically under such subjects as beef production, calves, breeds of animals, diseases, milk and butter production, feeds and feeding, heredity, and the different classes of live stock. A list of authors is given. The book claims to be but a "partial index," though covering 90 pages, and numerous blank sheets are left, so that other titles can be written in. We notice the omission of reference to several admirable publications, such as those on Swine Husbandry, by Prof. G. E. Day, and Canadian Dairying, by Prof. H. H. Dean, of the Ontario Agricultural College, and those by Jas. B. Spencer, of the Department of Agriculture, Ottawa, on Beef Cattle, the Sheep Industry, and the Bacon Hog Industry of Denmark and Great Britain, which should be included in the text of future editions.

"But," protested the wayward son, "you should make allowance for the follies of youth."

"H'm!" growled the old man. "If it wasn't for the allowance you get there'd be less folly!"



Selections from Eminent Writers.

The Canoe Birch.

(From "A Taste of Maine Birch," by Burroughs.)

"The Maine (canoe) birch is turned to so many accounts that it may well be called the palm of this region. Uncle Nathan, our guide, said it was made especially for the camper-out; yes, and for the woodman and frontiersman generally. It is a magazine, a furnishing store set up in the wilderness, whose goods are free to every comer. The whole equipment of the camp lies folded in it, and comes forth at the beck of the woodman's axe; tent, waterproof roof, boat, camp utensils, buckets, cups, plates, spoons, napkins, tablecloths, paper for letters or your journal, torches, candles, kindling-wood, and fuel. The canoe-birch yields you its vestments with the utmost liberality. Ask for its coat, and it gives you its waistcoat also. Its bark seems wrapped about it layer upon layer, and comes off with great ease. We saw many rude structures and cabins shingled and sided with it, and haystacks capped with it. Near a maple-sugar camp there was a large pile of birch-bark sap buckets,—each bucket made of a piece of bark about a yard square, folded up as the tinman folds up a sheet of tin to make a square vessel, the corners bent around against the sides and held by a wooden pin. When, one day, we were overtaken by a shower in travelling through the woods, our guide quickly stripped large sheets of the bark from a near tree, and we had each a perfect umbrella as by magic. When the rain was over, and we moved on, I wrapped mine about me like a large leather apron, and it shielded my clothes from the wet bushes. When we came to a spring, Uncle Nathan would have a birch-bark cup ready before any of us could get a tin one out of his knapsack, and I think water never tasted so sweet as from one of these bark cups. It is exactly the thing. It just fits the mouth, and it seems to give new virtue to the water. It makes me thirsty now when I think of it. In our camp at Moxie we made a large birch-bark box to keep the butter in; and the butter in this box, covered with some leafy boughs, I think improved in flavor day by day. Maine butter needs something to mollify and sweeten it a little, and I think birch-bark will do it. In camp Uncle Nathan often drank his tea and coffee from a bark cup; the china closet in the birch tree was always handy, and our vulgar tinware was generally a good deal mixed, and the kitchen-maid not at all particular about dish-washing. We all tried the oatmeal with the maple syrup in one of these dishes, and the stewed mountain cranberries, using a birch-bark spoon, and never found service better. Uncle Nathan declared he could boil potatoes in a bark kettle, and I did not doubt him. Instead of sending our soiled napkins and table-spreads to the wash, we rolled them up into candles and torches, and drew daily upon our stores in the forest for new ones.

But the great triumph of the birch is of course the bark canoe. When Uncle Nathan took us out under his little woodshed, and showed us, or rather modestly permitted us to see, his nearly finished canoe, it was like a first glimpse of some new and unknown genius of the woods or streams. It sat there on the chips

and shavings and fragments of bark like some shy, delicate creature just emerged from its hiding-place, or like some wild flower just opened. It was the first boat of the kind I had ever seen, and it filled my eye completely. What woodcraft it indicated, and what a wild, free life, sylvan life it promised! It had such a fresh, aboriginal look as I had never before seen in any kind of handiwork. Its clear yellow-red color would have become the cheek of an Indian maiden. Then, its supple curves and swells, its sinewy stays and thwarts, its bow-like contour, its tomahawk stem and stern rising quickly and sharply from its frame, were all vividly suggestive of the race from

It is handmade and homemade, or, rather, wood-made, in a sense that no other craft is, except a dug-out, and it suggests a taste and a refinement that few products of civilization realize. The design of a savage, it yet looks like the thought of a poet, and its grace and fitness haunt the imagination. I suppose its production was the inevitable result of the Indian's wants and surroundings, but that does not detract from its beauty. It is, indeed, one of the fairest flowers the thorn of necessity ever bore. Our canoe, as I have intimated, was not yet finished when we first saw it, nor yet when we took it up, with its architect, upon our metaphorical backs, and bore it



Canoe Birch.

which it came. An old Indian had taught Uncle Nathan the art, and the soul of the ideal red man looked out of the boat before us. Uncle Nathan had spent two days ranging the mountains, looking for a suitable tree, and had worked nearly a week on the craft. It was twelve feet long, and would seat and carry five men nicely. Three trees contribute to the making of a canoe, besides the birch, namely, the white cedar for ribs and lining, the spruce for roots and fibres to sew its joints and bind its frame, and the pine for pitch or rosin to stop its seams and cracks.

to the woods. It lacked part of the cedar lining, and the rosin upon its joints, and these were added after we reached our destination.

Though we were not indebted to the birch-tree for our guide, Uncle Nathan, as he was known in all the country, yet he matched well with these woody products and conveniences. The birch tree had given him a large part of his tuition, and kneeling in his canoe and making it shoot noiselessly over the water with that subtle and indescribably expressive and athletic play of the muscles of the back and shoulders, the boat

and the man seemed born of the same spirit. He had been a hunter and trapper for over forty years; he had grown gray in the woods, had ripened and matured there, and everything about him was as if the spirit of the woods had had the ordering of it; his whole make-up was in a minor and subdued key, like the moss and lichens, or like the protective coloring of the game—everything but his quick sense and penetrative glance. He was as gentle and modest as a girl; his sensibilities were like plants that grow in the shade. The woods and the solitudes had touched him with their own softening and refining influence; had indeed shed upon his soil of life a rich, deep leaf-mould that was delightful, and that nursed, half-concealed, the tenderest and wildest growths. There was grit enough back of and beneath it all, but he presented none of the rough and repellent traits of character of the conventional backwoodsman. In the spring he was a driver of logs on the Kennebec, usually having charge of a large gang of men; in the winter he was a solitary trapper and hunter in the forests.

The Windrow.

The noted scientist, M. Edmond Perrier, of the Academie des Sciences, considers that Mars is the only planet besides Earth which is inhabited by a race similar to human beings of this planet.

Dr. Alfred Wallace, who was collaborator with Charles Darwin in some of his work, has, at the age of 88, published a book, "The World of Life," which is attracting much attention in scientific and religious circles.

A memorial tablet to Goldwin Smith will be erected in the beautiful hall that bears his name on the Cornell campus by direction of the board of trustees of Cornell University. The tablet will commemorate the distinguished savant's gift of \$689,000 to Cornell, and will be placed in the entrance hall, not far from the busts of Dr. Smith and his wife. On it will be inscribed these words, from Dr. Smith's will: "All the rest and residue of my estate I give, devise and bequeath to Cornell University, in the State of New York, United States of America. . . . In confirming this bequest, my desire is to show my attachment to the University in the foundation of which I had the honor of taking part to pay respect to the memory of Ezra Cornell, and to show my attachment as an Englishman to the union of the two branches of our race on this continent with each other, and with the common mother."

Glad Heart.

By Mrs. Charles Page.

To hear her laugh, you'd think the earth Held nowhere sadness, only mirth.

It had been such a weary day;
The sullen skies were wan and gray;
The rain sobbed wistfully, and wept;
The cold wind—life was sorrow-swept
Until she came. Oh, all the birds
Sang in her voice; and strove for words
The tiny, seeping, silver streams!
The subtle music of my dreams
Came true, and life was good and fair;
The rain waxed beautiful, the air
Was filled with flow'r-scent—so my view
Veered to the magnet sound, and grew
Calm and serene and sane anew.

MARCH 16, 1911

"Manners Makyth Man." IV.

"Neither a Bore nor a Boor, but a Cultivated Gentleman."

I am indebted to a very dear friend of mine, the mother of sons of whom any Canadian parent might well be proud, for permission to quote freely from a letter which I was privileged to read in the course of a conversation upon the topic which has headed my last three articles, "Manners Makyth Man." The letter was written by an elder brother to a younger, the former having crowned a successful career at our public schools and university, by holding more than one prominent position; the latter, after also successfully competing for three scholarships, having just entered upon university life in one of the large cities of the Dominion.

Naturally, my use of this letter has to be very restricted, and so must be my words of commendation, lest I should invade the privacy and betray the identity of these fine young specimens of Canadian manhood, but I believe that my quotations will not be without their significance, as showing the brighter side of the shield, as it were; as giving proof of what home influence and a wise use of the educational advantages our country offers, and of what a bounteous harvest may be expected from good seed sown in good soil. The letter begins:

"Dear : To-night, the first free night I have had for weeks and weeks, I am going to write you about your University Course—about both your work and your general life there. First, about your University life, apart from your work:

"You have already made a start, so that it is useless for me to give you any advice about your conduct on entering. Had I written you earlier, I should have warned you to lie low and say nothing for some time. You are now entering a society of 2,000 students, hardly any of whom know you, and hardly any of whom you know. Your reputation with them is therefore in your own hands; see that it is a good one! Men at the University haven't so much admiration for a brilliant man as they have for a man of strong character; a decent man, who is white through and through; a man who is straight, clean and manly; a man who says little, but is ready to do his share and more, without talk, when it comes to action; a man who has every other man sized up in his own mind, but who never, on any condition, says an unkind, ungenerous or unthinking thing about another man; a man who works hard, and has the force of will to stick to it, in spite of blandishments or temptations; a man who always sets his face against any proposal which is the least bit crooked or tricky or underhand; a man who assumes no airs, social or intellectual; a man who knows his own mind, and minds his own business; a man who is companionable, accommodating and 'clubbable'; a man who is always ready to help a chum either in his Latin prose, or in a fight with the police; a man who is absolutely sincere, in word and deed, and who never tries to run with the hares and hunt with the hounds; a man who never exaggerates, and who is always inclined to understate rather than overstate his case; a man who always does the decent thing; a man who puts on no side; a man who is a sport, and a clean one; a man who plays the game, first, last and all the time. That is the sort of man I want your 2,000 companions to find in my brother.

In my day at Varsity, the most popular man was H. J., yet I never knew him to do anything to seek popularity. He was a Y. M. C. A. man among students who were by no means to be envied with the Y. M. C. A.

He had more money than the vast majority of us, yet he spent less than most. He never preached to the other fellows, yet I never heard him swear or tell a smutty story; he never soiled his own lips with them. He never smoked, as far as I can remember, and certainly he never drank anything. He was friends with everyone, with men of all parties and classes, and I don't think anyone ever heard him say a word against a soul. He had little to say, but he was always ready for fun. As a freshman he laid low, and did what he was told, without any back talk, and with the best of humor; as a sophomore, he treated freshmen with more consideration than any sophomore had ever treated him; as a senior, he saw to it that the sophomores of that day acted fairly towards those below him. He was one of the most silent men in the University, and when he spoke he never raised his voice. If the conversation was getting awkward or undesirable, he would in his quiet way turn it into a better channel. If the conduct or character of some man was being discussed, he was the first to suggest a favorable explanation or a charitable view. Of course, he was a sport—a great footballer, as well as an association player, a hockey player and a baseball player. A quarter-back of the First Fifteen, he was naturally an idol of the whole university, but his popularity existed long before he became quarter-back. On the football field he never played for his own glory, but always for the glory of his side. He would pass the ball to a man in a better position, even though he had a chance to make a brilliant run. He worked hard for the Athletic Association—work that is laborious, but not showy. He was content to do the work and let the other fellow have the honor. In spite of his prominence on the football field and in various student societies, he was perhaps the most modest man in our class. He did no spouting at meetings, though he would work like a Trojan at committee meetings. He seemed to have a poorer opinion of himself than anybody else had of him. In spite of his quietness, no one would ever have mistaken him for 'a stick.' He was full of fun—innocent, irresponsible, bubbling humor. When it came to a political fight, he'd fight hard for his party,

but he'd never say or do an ungenerous thing against the other side. Above all, he was absolutely straight and trustworthy in every detail; he played the game from start to finish.

"That was H. J., and, as far as possible, I should like to see you the H. J. of your generation. You may never play on the first team, but then, there is nothing to stop you from being as straight and decent as he was; nothing to prevent you being as completely master of yourself; nothing to stand in the way of your playing the game in as true a sportsmanlike manner. Model yourself on H. J. as I have pictured him here, and you will make a huge success of the social side of your University life.

"To get down to details, I should advise you to keep your mouth shut as tightly as you can for the first term or so. I don't mean that you should be a recluse or unsociable. Go into everything, but let the other fellows do the gassing. You lie low and take their measure. If you're given a job to do, do it, but don't talk about it. Don't try to make yourself a hail-fellow-well-met. Don't swear. Don't swap stories. Don't be generous with confidences. In your first year you have no idea who will be your best friends in your fourth. But never do or say anything which will prevent you being the best of friends with any man in the University. My own advice to you would be not to smoke. That is largely on account of your health. Until the development of your upper chest is more satisfactory, you would be extremely foolish to smoke, and no one would think better of you for smoking. But, if you like, have cigarettes in your room for your friends.

"One other point of a general character: If you are entertained, either by Professors or by the parents of your fellow students, or by people you may meet in Toronto, make it a rule to observe all your social duties. If you are invited anywhere to dinner, or to a party, call the following Sunday afternoon without fail. This is a rule neglected by so many young fellows that the one who observes it at once is recognized as a gentleman. If you go out with the G's to spend a weekend or Thanksgiving Day, write a note to your hostess the day after your return, thanking her for her

kindness and hospitality. That is a rule which no gentleman ever neglects. Further, make it your practice always to pick out and associate with the nicest people. I don't want you to be a snob; but, after all, breeding does count, and people who are always meeting gentlemen become gentlemen themselves; while those who are always meeting ordinary people, become ordinary. So choose your friends, when you do choose, from among the men of good family. In that way you will meet the other people of good family, and your connection will be far better than it otherwise would be. And, from the first, when you are meeting nobody, seize on the Professor who is the most cultured, and make him your model. Choose an Oxford man; it may be Prof. D. or Mr. B., or Mr. W., or Mr. S., or Mr. M.—the very best type of Oxford man with whom you come in contact—and do your very best to acquire his refinement of thought and manner. You are still in the imitative stage; your character is still in process of formation; see to it that you develop into the best possible man and the most cultured gentleman. The street urchins can easily beat you at slang; drop all efforts to rival them; try, rather, to rival those to whom slang is an abomination, and with whom culture counts for everything.

"And here let me say that the great secret of gentlemanliness is unselfishness. The true gentleman is the man who is always thinking of others. Cultivate this. Always think how you can add to the comfort or pleasure of those with whom you come in contact. You will then give up your seat to a lady or an older man in a street car; you will turn the conversation at dinner to subjects which interest the other diners; you will encourage people to talk about themselves, rather than about you; you will think more of passing them the salt than of getting them to pass you the salt; you will notice that they are tired or worried or indisposed; you will be generous in action and accommodating in discussion; you will acquire the price-less faculty of always putting other people at their ease. In a word, you will never be a bore or a boor. You will always be a gentleman. That is the greatest secret of life—Unselfishness."

H. A. B.



Delightful Farmhouse and Surroundings, Cornwallis, King's Co., N.S.

Hope's Quiet Hour.

God's Little Children.

It is not the will of your Father which is in heaven, that one of these little ones should perish.—St. Matt. xviii: 14.

Yesterday I had the great pleasure of being present at the annual meeting of the Children's Aid Society, of Toronto. The meeting was held in The Children's Shelter, Simcoe street, and many interesting addresses were given by Bishop Sweeney, the Lieutenant-Governor, the Mayor, and others. The children marched in and sang patriotic songs with great energy. It did one's heart good to see the happy faces, shining with cleanliness and beautiful with health. Many of them were quite tiny tots, almost babies. Both boys and girls were dressed in white, but there was no stiffness in uniform, for the little girls' dresses were not all of the same pattern, and the boys rejoiced in bright neckties of various styles. We were invited to inspect the building, and it was a great pleasure to peep into the dormitories with their little white beds—each with its dainty white pillow-sham, feather-stitched in red—and the white covers for the very little children. We also had a glimpse of the schoolroom, where each child was sitting in front of his little desk, and afterwards the little ones trooped into the dining-room for tea, which was evidently very enjoyable—if one might judge from their smiling faces.

Some of the children in the institution are sent there by the Children's Court, others have been rescued from homes of misery and neglect. I should like to quote part of the Report of the Board of Management, which was put into our hands yesterday.

"In presenting the Nineteenth Annual Report of the Society, the Board would place on record its deep sense of the goodness of God manifested in the kind Providence which has guided the hand of Board and workers alike in carrying on the work of the year. There has been much that calls for devout thankfulness—the work is ours, but the blessing is His—to Him be the glory, for without Him the builders labor in vain. . . . The task is not an easy one, and calls for the exercise of grace and patience; but the aim is a noble one, and is well worth the effort. The workers, by the blessing of God, have had much to encourage them, for some hundreds of children, now growing up into manhood and womanhood, in good foster homes, are furnishing evidence of their becoming good citizens, and thus fulfilling the aim and hope of the Society—and what a contrast—some six hundred boys and girls in comfortable foster homes, with every chance for useful, happy lives, instead of, as in many cases, they would have become members of the criminal class. Thus, through the agency of the Society, children have been removed from ruinous influences, trained for a time in self-restraint and discipline, and helped to lives of self-respect and usefulness. . . . The child who has never enjoyed life in the country has missed much, and his development is likely to have been one-sided. Last year, through the large-hearted liberality and Christian kindness of Mr. William Thomson, a holiday outing was made possible, and a vacation of five weeks for the girls, and another five weeks for the boys, was greatly enjoyed, the children having a good time, and many of them a new experience. The place selected for the Camp was upon Lake Couchiching, a few miles from Orillia, and the Camp presented a very picturesque appearance indeed, with its row of small white tents supplied with comfortable beds, with a cottage for the staff and officers, and a dining-room tent. Flags surmounted all the tents, and the name chosen for the Camp was no misnomer, 'Happiland.'"

Children are very quick to receive impressions—especially good impressions. Looking at the sweet, innocent faces, it was hard to believe that those bonny children had been rescued from evil surroundings. Evidently the love and patience of those who now tenderly care for them as God's dear children is already bearing good fruit.

One of the speakers said that thanks were due to the workers rather than to the givers of money. He said that it was a pleasure to care for one's own

children, but that the children of other people were rather trying sometimes. Among those who deserved thanks, he mentioned the farmers who were caring for many of the children, giving them the priceless blessing of real homes to grow up in. It is difficult to find foster homes where the children may be adopted and loved. If you know of any such childless home, here is your chance to supply its need.

In the Book of Proverbs we read that "a child left to himself, bringeth his mother to shame." Of course, that is the natural result of neglect. You farmers don't expect much from a field that is left to plow and sow and weed itself. It will only produce a crop of thistles and other weeds, when it might have produced good fruit with careful management. (Does God give the harvest in such a case of neglect by man?)

When our Lord was asked the question: "Who is the greatest in the kingdom of heaven?" He said that the path to greatness was open to those who should humble themselves and become like little children. Then He proclaimed the wonderful tidings: "Whoso shall receive one such little child in My Name, receiveth Me," offering to come and live with those who should open their homes to His children. He contrasted with the blessedness of those who receive His children the miserable state of all who lead them into evil, explained—in the wonderful parable of the lost sheep—that His love for each could never be dimmed, and ended this children's gospel with the words I have chosen for our text: "Even so it is not the will of your Father which is in heaven, that one of these little ones should perish."

God's little children! Let us remember that all children belong to the King of Kings. Those who injure them by neglect or cruelty, or who defile the spotless innocence of their white souls, must face the wrath of One Who has said: "Whoso shall cause one of these little ones to stumble, it is profitable for him that a great millstone should be hanged about his neck, and that he should be sunk in the depth of the sea."—(St. Matt. xviii: 6, R. V.)

But that is the dark side of our subject, which shows more clearly the brightness of the other side. Think of the blessedness of those who are patiently and tenderly caring for the children of the King. There is an old saying: "God could not be everywhere, so He made mothers." But is it not rather true that God is everywhere, and that He is touching His children through the hands of mothers, and of those with mother-hearts?

In all God's Garden of earth, there is no lovelier flower than the little children. Was it any wonder that our Master lifted them in His arms and pressed them against His heart? Is it any wonder that He sometimes lifts them into His arms to be trained and perfected in the sunny fields of Paradise? God loves His little children, and He sends them down to earth to cheer the heavy-hearted, to bless and purify the homes of rich and poor, and to lead His older children nearer to Himself. This world would be a very dreary place, and men and women would grow very hard and selfish, if it were not for the dear, troublesome, glad-hearted little ones. God loves the world, therefore He sends us babies every year. Any kindness shown to them is repaid hundreds of times over by their Father. Our Lord has said: "Whosoever shall give to drink unto one of these little ones a cup of cold water only in the name of a disciple, verily I say unto you, he shall in no wise lose his reward." We all can do as much as that—or more.

DORA FARNCOMB.

I must again thank those who have sent me letters, valentines, etc. It is always a pleasure to hear from our readers—even when they write to say they disagree with me. We can't always think alike, but we can always be friendly—can't we?
D. F.

To Those Who Sent Literature for Distribution.

Permit me, through your magazine, to express my warmest thanks and appreciation for the generous response of your readers to my appeal for literature for distribution. The publications received were especially well selected and ample. To the individual contributor, let me say:

Could you but see the joy and thankfulness with which those papers are received, I am sure you would feel amply repaid. "Inasmuch as ye have done it unto one of the least of these my brethren, ye have done it unto Me."—Matthew 25: 40.

JACOB MATTHIAS.

Uffington, Muskoka, Ont.

A Blessing for the Blessed

When the sun has left the hill-top,
And the daisy-fringe is furled,
When the birds from wood and meadow
In their hidden nests are curled,
Then I think of all the babies
That are sleeping in the world

There are babies in the high lands
And babies in the low,
There are pale ones wrapped in furry skins
On the margin of the snow,
And brown ones naked in the isles
Where all the spices grow.

And some are in the palace
On a white and downy bed,
And some are in the garret
With a clout beneath their head,
And some are on the cold, hard earth,
Whose mothers have no bread.

O little men and women,
Dear flowers yet unblown!
O little kings and beggars
Of the pageant yet unshown!
Sleep soft and dream pale dreams now,
To-morrow is your own. . . .

Though some shall walk in darkness,
And others in the light,
Though some shall smile and others weep
In the silence of the night,
When life has touched with many hues
Your souls now clear and white:

God save you, little children!
And make your eyes to see
His fingers pointing in the dark
Whatever you may be,
Till one and all, through Life and Death,
Pass to Eternity

—L. Alma-Tadema.

March.

By Lalia Mitchell.

A bluebird flew from the sunny South,
Ere the winter's snows had fled,
And an old owl questioned him hoarsely
How
He thought that he could be fed;
And why he came till he surely knew
That meads were green and the heavens
Blue?

But the bluebird slept where the woods
Were dense
And the dry barberries hang,
And he came at dawn to the orchard
Trees,
And merry the song he sang:
"Oh, the summer I keep in my heart, nor
Care
For the skies, while their blue in my coat
I wear!"

And the old owl turned to his gnarled
Tree,
And the bluebird went his way;
And the winds blew soft o'er the eastern
Hills
And the crystal skies turned gray.
And the buds came out on the sun-kissed
Larch,
And the world rejoiced, for lo? 'twas
March.

Mary's Costly Clothes.

Mary had a little lamb—
'Twas Persian—on her coat;
She also had a mink or two
About her dainty throat;
A bird of paradise, a tern,
And ermine made the hat
That perched at jaunty angle
On her coiffure largely rat;
Her tiny boots were sable topped,
Her gloves were muskrat, too;
Her muff had heads and tails of half
The "critters" in the zoo;
And when she walked abroad I ween
She feared no wintry wind;
At keeping warm 'twas plain to see
She had all that was "skinned."

The Roundabout Club

Study IV.

Those who earned the highest marks in Study IV.—"Write a Character Sketch"—were "Scottie," Glengarry Co., Ont.; S. E. Oill, Welland Co., Ont.; "Honor Bright," Halton Co., Ont.

Extra awards were given to "A Friend," Prince Edward Co., Ont., and Fawcett Eaton, Wentworth Co., Ont.

During the judging, there was some discussion as to whether an essay on "A Country Church" might be considered a character sketch, but as, in the competition, considerable latitude was allowed in regard to subject, the emphasis in marking being placed especially upon literary quality, it was decided that the disputed essay must stand, the more especially that the church was, to some extent, personified, and that human characters were really introduced. One or two competitors wrote on "character" in the abstract, but clearly this was not what was required.

Very excellent essays were also written by J. W. Thompson; A. M. Freeborne; "N. B."; "A Maid"; "Forget-me-not"; "Constant Reader," and "Larry Larkins."

Essay I.

The Country Church.

It was not a striking specimen of ecclesiastical architecture either externally or internally. Like most of its neighbors, it was but a white-painted, square-walled building, unornamented save for the tapering steeple, which pointed heavenward, showing the path to—

"The land that is fairer than day,
Which, by faith, we can see from afar."

Ranged in front of the double-doored entrance was a line of young and vigorous maples, stretching their leafy heads over the sharp-pointed pickets, and the little gate that fastened with a hook in a ring; on the north side, the old graveyard hugged the foundations of the church as if the two were good friends; to the east stood the sheds, with the right-hand stall reserved for the minister's sorrel horse. Take it all in all, it was indeed a homely church—old age and summer rains and winter snows, had covered the paint-streaked clapboards with a network of wrinkles, and even a bit of gray showed here and there. The belfry, with its tiny window-eyes partly closed, was sound asleep the day I wandered to the dear old spot. The sexton, who for many a long year had "played the sexton's part," had just finished his weekly sweeping of the aisles and left the door open. Dear-a-me—the same old knob that always creaked so in prayer time! The same capacious woodbox in the corner of the anteroom; the same—what! crimson cushions on the seats? carpets on the floor? matting in the aisles? a new railing in front of the communion table?—and even a new pulpit had introduced itself, displacing the high old box stall of my remembrance, which hid from view all but the head and shoulders of the preacher. The Iconoclast had created sad havoc. The disappearance of the collection bags attached to long poles, and the high-backed family seat in the right-hand corner where Deacon B—sat for twenty years' of Sundays, and half as many prayer-meeting nights, was further evidence of it. But it only needed a momentary flight of the imagination to restore the former landmarks and repeople the old-fashioned seats with the religious stalwarts of thirty or forty years ago. Every pew was a monument; every corner was "In Memoriam" to some departed saint. It only needed the birth of the thought to place mother in the pew under the large window nearest the organ, and to put in the rack her Bible with the brass clasps, and her black-bound hymn-book, with a cross pencilled opposite each hymn whenever it was sung. What an array of pencilled stars surrounded "Rock of Ages," and "Nearer My God to Thee"! It only needed the merry twittering of a sparrow on the window-sill to lead me to lean over the ledge and peer through the branches of the wild rosebush that clung affectionately to the wall, to the marble-lined streets beyond, and to mother's grave, covered with sunshine and flowers. . . . And the day mother was carried there! Every seat of the church was

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full-filled with the villagers to whom she had been as an angel of mercy whenever mercy was needed, and the carved pulpit-chair held the old gray-haired minister who had baptized and married her, and received her into communion on confession of faith just twenty-four years before. No wonder he wept. Even the big bell which had been ringing souls into church and into Heaven for many a decade, trembled a little as it pealed forth its minute dirge.

The old bell, did I say? Why, yes. I had nearly forgotten it. The stairs were just as creaky and dusty as ever; and the long, dangling rope, so unpleasantly suggestive in boyhood days, swung itself into activity when I disturbed it. What a view of life the old bell has, I thought! It sees:

"Time for sorrow, time for song— Comes and goes the fleeting breath; Time for sorrow, time for song— Life to-day, to-morrow death."

To-day its merry peals are sent ringing

"O'er a happy bridal pair";

To-morrow it is changed to a note

"Soft and low, As they turn the burial sod, And bowed the mourners weeping go, For a soul returned to God."

And then, retracing my steps, I passed along the grassy pathway to mother's grave, where we talked over old times—the of the nights when she used to kneel beside the bed of us boys, with the moon rays illuminating her face—a benediction of light—and pray for us. We only saw her lips move, but we could tell every word that was sent journeying along the moonbeam to the great white throne. We talked of the old home, crystallized by memory into a palace, with the circular flower-bed just in a line with the front door, and I told her the little bed of daisies and the big poppies and the snow-balls blossomed and budded just as beautifully as when she loved them. Oh! what a happy reunion we had, Mother and I! Not before a bevy of sunbeams spoke to me over the fence, just before they said good-night, did I leave mother's grave and mother's church.

"SCOTTIE."

Julius Caesar: A Character Sketch (Based on "Julius Caesar," by Shakespeare.)

Generations have come and gone, generations may come and go, each bearing its great honor roll of leaders and heroes, governments and triumphs, but the world never has, and very likely never will see such another man as Caius Julius Caesar, —leader and hero in one, forming Governments and holding triumphs, not only for his military conquests, but in the sense of triumphant defence of the people, justice, and right. He fought his battles to establish justice in the government of the world, and for this he was murdered by men who failed to see that for Rome a new era had dawned, and that Caesar was "The incarnation of that new, inevitable order of things."

In person, Caesar was tall and slight. His features were more refined than was usual in Roman faces, as the man was far more wonderful than was the usual Roman. The forehead, wide and high, the index of his remarkable force of intellect and will; beneath, eyes dark like an eagle's, and, like an eagle's, quick to see, that the mind might be quick to act; full lips, which might be as tender as a woman's or as firm as ever man's were;— these were the most striking features of his face, which was habitually pale in spite of his splendid health. His whole bearing was quiet and gentlemanlike, with the natural courtesy of high breeding. Being sincere, direct, and straightforward, he was the trust of friends and the most honorable of foes. Froude has said of him, "He moved through life calm and unobtrusive, like a force of nature."

But Shakespeare, in his immortal play, "Julius Caesar," did not choose to show us the gentleman, the orator of surpassing grace, the powerful politician, the world-wonderful, mighty general, whose, rather, to take him at a time in his life when he had reached a height of power never before or since attained by mortal man, at a time when

he had paused on the ladder of his ambition that he might show the weaknesses of ordinary men,—to take him at this time and show us the proud, arrogant victor of victors, who, with the knowledge that he had the world at his feet, demanded and received the attention of a prince, and the homage of a king.

In the light in which Caesar is thus shown us by Shakespeare, we recognize, above all things, his strength and force of character. Someone has said that we are what other people think we are, and whether true or not, the attitude of the conspirators toward the man they were to kill, shows conclusively that Caesar had that mysterious power of making men love him. In this lay his real greatness. Brutus looked up to him and revered him, and, though he was to slay him for his ambition and what it might lead him to do, could not help but say, "I have not known when his affections swayed more than his reason." Anthony, too, in all consciousness, was moved to say, "Thou art the ruins of the noblest man that ever lived in the tide of times."

True, Caesar loved power, but the means he used in attaining it were no worse than those of any Roman politician. When attained, he used it mercifully,—no proscriptions followed his assumption of power as it did that of the triumvirate.

His imperial dignity and presence of mind, when the conspirators came for him, seems to us, who know what the future held for him, like foolhardiness. Though at first reading of the play we think of Caesar as a braggart, more given to boasting than to real dignity, we cannot fail to recognize the sincerity of his words, "What touches us ourselves shall be last served."



Glass Interior Doors.

Much in favor wherever extra lighting is needed, or to give an unbroken vista from room to room.

Yet show him to us as he will, Shakespeare cannot hide Caesar's dominant personality, nor does he wish to, for it pervades the whole play, and after his death is the means of turning the swords of the conspirators into their own proper entrails, thus aiding in fulfilling the notion of irretrievable destiny that permeates the whole drama. As Froude says, "It is not the bodily presence of this hero that is the protagonist of the play, but the SPIRIT of Caesar that lives after him. Brutus, Cassius, and Antony, are the human characters in the drama, each with their strong and weak points, but over them all towers the spirit of the slain Caesar, destined for centuries to claim immortality and worship, while their weak and disunited efforts to control the destinies of the world became no more than material for the biographer and the poet." Welland Co., Ont. S. E. OILL.

A Character Sketch.

"Shannon is my name, but I'm nae Irish!"

The explanation was just tinged with resentment and conscious dignity, as though her nationality had been called in question by the hovering smile on Molly's

lips, or scarce perceptible uplift of her eyebrows.

"I should have known that. Your tongue betrays you," Molly gaily reassured her.

Whereupon, Mrs. Shannon was induced to remove her wraps and partake of a hot cup of tea. I remember how we lingered in the kitchen that afternoon, partly from a curious interest in the wayfarer who had sought and obtained shelter under our roof, partly to sympathize with her in her penury and trouble. I can see her yet as she stood within the threshold—the little blue-eyed, yellow-haired lassie, whom we came to know as Scotch Nell, hiding bashfully behind her mother's skirts—low-set of figure, red of countenance, one prominent front tooth minus its mate, her hair drawn tightly back in a hard little knot, her extremely short skirt and close-fitting coat accentuating the shortness and stoutness of figure, and in the eyes of her a world of woe and trouble.

The household had not known her long before wee Nell became a prime favorite with a splendid chance of being spoiled, for highly entertaining to us were her quaint mannerisms and musical Scottish phrases.

"Mammy's no greetin' the morn!" she announced, when, the rag baby still in her arms, she trudged down the stairs in her nightgown and stood shyly contemplating us from the doorway. And so, indeed, when "Mammy" later made her appearance, we were not unprepared to find that she had spent a restful night, and was in much better spirit. She would not permit herself to be unduly bright or hopeful, however, for when pressed to partake of a tempting breakfast, she sadly shook her head.

put it in more forcible terms, were "dung oot." They were strangers, their means limited, and it was winter. Whither shall they go, and to whom? Such were the circumstances under which we first made the acquaintance of Mrs. Shannon.

For several weeks the Scotch woman and her child remained guests in our home, fitting into the home life, even taking a self-appointed share in the household work. In the meantime, the son continued in the employ of the man with whom he had engaged, and the husband drifted from town to town in search of work. A stone mason by trade was Wallie, and, according to his wife, a rare workman, and steady. Assiduously (this also according to his wife), but in vain, did Wallie court work. Finally, securing a job in a foundry, he sent for his wife and child. They went, but returned in less than a fortnight.

I have a very good mental picture yet, of the family trudging four weary miles from a railway station, through the mud of a sunshiny April day. Mrs. Shannon was in the lead, breathless, perspiring, but voluble of explanation. Nell followed, childlike, gleeful at the return, and Wallie brought up the rear, rather shamefacedly, we thought.

"Wallie's awfu' bashfu'," panted the old lady when she caught a glimpse of Mollie at the door. Mollie told us afterward, it reminded her of the prodigal's return—she beheld Wallie afar off, but refrained from running to greet him.

A dozen paces from the door, Mrs. Shannon summoned breath again.

"Woe's me! Little did I ken, when I left bonny Glasgae, 'twad come tae this—that I should seek help frae strangers. But there's na work in Glasgae, ye ken. The firin' at the foundry didna agree wi' Wallie. Come along, my wean—aye, she's weary like. Are ye no comin', Wallie? He's aye back'ard in comin' for'ard, ye ken, is my Wallie!"

We came to know Wallie better in the days that followed. Indulged, excused, and petted as he was by his devoted wife, the flimsy veil which her love threw over his faults was ruthlessly torn off and trampled by none other than Wallie himself.

It happened after they were most comfortably settled in a tiny farmhouse. Wallie frequently walked into town on Saturday afternoons to purchase their wee bit groceries, and, as we only too sadly feared, to refresh(?) himself. On this occasion, Wallie failed to start home in good time, and nightfall overtook him. As his "guid wife" afterwards explained:

"It was sae dark, Wallie couldna see a hand before him, and the road, ye ken, is sae windin'. He thought gin he could follow the fences, but they're na to be depended upon, ye ken, an so he was aye bewildered like, until twa men took him up in the machine (meaning wagon).

Dear Mollie nodded in sympathetic understanding of all "puir Wallie's" trials, while I, who do not so nearly approach the angelic as Molly, turned aside to smother a laugh.

Yet, after her illness, Mrs. Shannon confided in me her opinions of operations in general, and doctors in particular. She was feeling quite her old self again, and laughed right merrily at the effect of some of her quaint Scottish speeches on the nurse and doctors.

"I was so a'fear't they would touch me afore I was awa' wi'—the stuff that puts ye to sleep, ye ken,—chloroform, oh, aye! Well, I kept a hollerin' ott, 'I'm no awa' yet, doctor, I'm na awa' yet!' I could hear them chuckle to themselves, then press the hankie over my face agin. Still, I wadna gae, and I hollers oot, 'I'm no awa' yet; didna ye tech me!' Ye ken, they made sure I went the next time. An' it's all over now. Havers, but yon nurse was the clever lass! Sae clean and quick like!"

It was when the larder was low and winter pressed them hard, and Tom's braw young wife, hale and hearty after her voyage from "Glasgae," with an appetite that promised to make serious inroads on the slender stock of provisions, that the worthy mother-in-law lost her temper, and, at the conclusion of an extra big meal on the part of Tom's wife, burst out with:

"Lord bless ye, Lizzie; there's anither day comin'!"

Such was my Scottish friend, Mrs. Shannon. Of her experiences in Canada she has often said: "I could write a

book on't." When last I seen and chatted with her, she assured me that at last prosperity was smiling upon them, for they had a "wee bit hoose at fifty a year, a coo and calf, and a pig in the sty." HONOR BRIGHT.

Halton Co.

Seed for School Children.

The work of the Schools' Division of the Ontario Experimental Union has proved so successful, that this year it is to be materially extended. Last year, packets of seed were sent to nearly 8,000 children, and about 180 schools co-operated in the work, the seeds being sown and the work carried on either in the school garden or at the homes of the children, but under supervision of the teacher. For all particulars, write at once to the "Schools' Division of the Agricultural and Experimental Union," O. A. C., Guelph, Ont. Seeds, etc., will, of course, be sent only to schools and children within the Province.

AN IMPORTANT QUESTION.

Professor McCready, B. A., Professor of Botany and Nature Study, O. A. C., Guelph, and one of the promoters of the Experimental Union above referred to, is strongly of the opinion that we should have especially-qualified teachers for our rural schools. We quote from his report for 1910: "Why cannot we have our Rural School Teachers recognized?—not as the teachers who are getting experience so that they may take positions in the towns, not as the teachers who have failed in the towns and sought oblivion in the country, not as teachers who may be hired at a low salary—but as experienced, progressive, successful, well-paid teachers, who are permanently secured as teachers specially suited to work amongst a rural community and make the most of life there for themselves, their pupils and their parents.

"In this connection, an endeavor was made at Toronto last spring to bring about the organization of such a section of the Public School Teachers' Department of the Ontario Educational Association. While the proposal found support from the teachers of rural schools present, the majority of the teachers present—who were urban teachers—voted the measure down. Such an organization will come later, when the work of the country school is seen to require a teacher of even greater gifts and equipment than is required in the graded urban schools. Let us have the Rural Teacher for the Rural School! The times are demanding it. It is due our 5,000 rural schools, with their 250,000 country school children."

Since the above words were written by Prof. McCready, events have moved onward enough to show that he is no false prophet. Already rural school trustees are beginning to demand teachers with agricultural qualifications for their schools. Several advertisements to this effect have been noted in the "Teachers Wanted" columns of the daily press during the past few months.

Old Maids.

The true "old maid," like the true poet, is born, not made, old maidishness being a question of innate character rather than of incidental condition. There are old maids of every state and age and sex, says Ellen Thorneycroft Fowler, creatures who revel in fuss, and batten upon detail, and abide in the narrowest of narrow ruts. Do we not all know married women with large families who are, nevertheless, old maids to the backbone, just as we know adorable elderly spinsters who have the minds of girls and the hearts of mothers? And do we not also know numbers of the (so-called) stronger sex whose absorption in trifles and avidity for gossip proclaim them old maids of the purest water?

TRADE TOPIC.

DICTIONARY.—Every home should possess a dictionary. A new one, very complete in all respects, and in type that is exceptionally easy to read, has been issued by The Macmillan Company, St. Martin's House, Bond street, Toronto. Price, only 45 cents, bound in cloth. Write for it.

"The Farmer's Advocate" Fashions.



6908 Child's French Dress,
2, 4 and 6 years.



6953 Girl's One-Piece Dress
Closed on Shoulders,
4, 6 and 8 years.



6956 Child's Bishop Dress
with Straight Lower Edge,
6 mos., 1, 2 and 4 years.



6950 Girl's Princesse Dress
to be Slipped Over the Head
4, 6 and 8 years.



6951 Child's Bishop Dress,
6 months, 1, 2 and 4 years.



6935 Girl's Kimono
with Voke,
6 to 12 years.

was the reason why the scene has remained to every detail. It was a boiling hot day, yet nowhere were there muslins or dimities or chambrays in evidence; and so the inference is that, at that particular period, such "cheap" things were not considered good form for the well-dressed woman. Instead, nun's-veilings were everywhere, mostly of a terra-cotta shade (think of it!), which must have been very much favored of Dame la Mode about that time. There was, too, a lady from Toronto gowned in very heavy black silk, draped and draped over a huge "Grecian bend,"—Grecian!—save the mark! Her "bend" was much the largest present, so, to my childish mind, the wearer thereof was very much the most fashionable woman present.

Well, we have patched the tailor considerably since then, as we have noted, in dress, as well as in many other things. We have discarded the bustle, and the wasp waist, and, thanks be! we have learned to wear cool, simple clothes in summer, even for "best."

And so I suppose you are all hurrying through with the making of the pretty things before the spring opens any further. Already there is a perceptible increase in the general work that must be done; the fresh cows are all "in," there are little calves to be attended to, and hotbeds to be fussed over, and the hens are cackling their heads off down in the henhouse, so that how can one resist the temptation to run down a dozen times a day to see what they are about! Later will come the cleaning of the yards, and house-cleaning, and gardening, and crowding upon that the whole summer work with a rush. Then happy you will be if every stitch in every gown for the whole season has been taken before April is ended.

It may be, however, that a few of you have not yet put scissors into cloth, nor have even been to town to find out what is being "shown this season." And so I hear you ask, "What are to be the styles this year? And what are favored materials for summer dresses?"

Well, in the windows I see evidence of thin and sheer materials everywhere. There are foulard silks and toska silks, and thin silk-and-wool mixtures in plenty; but the wash-goods counters are even more attractive, and here are to be found all sorts of lovely things, all-over-embroidery dress lengths, muslins, mulls, cotton voiles, batistes, India linens, dimities and zephyr gingham for dressiest gowns, with chambray, cotton poplin, cotton rep., pongee linen, pure linen, duck, crash, print and Indian head for the heavier gowns and suits that form so serviceable a portion of the summer wardrobe.

I have just been looking over the latest fashion books from New York, too, and I find that for linens, chambrays, etc., skirts are to be plain, rather narrow, and straight, sometimes trimmed with banding or insertion set in various ways. With them are to be worn easy blouses, usually with deep, narrow sleeve-caps, with guimpe and straight, tight undersleeves of white all-over embroidery or some equivalent. For the more sheer goods, such as mull and muslin, the designs are softer and fuller, and there is a hint of a return of the deep frill on the skirts. Occasionally, in all designs, there is an indication of a front panel in the skirt, extending up over the waist. Here and there, too,—quite generally favored, indeed,—the high waist-line obtains, but the tight princess is as extinct as the dodo, and the strictly hobble skirt is fast following it,—thanks be!

So much for the spring fashions.

Pastry Bag.

Dear Dame Durden,—Would you kindly give directions for making a pastry bag and tubes in your columns? Also, suggest a good-paying occupation for a young girl of rather limited means, who wishes to soon earn her own living? I do not wish to do housework or engage in a factory.

WILDFLOWER.

Have your tinsmith make two small tubes about two inches long, somewhat funnel-shaped, one about three-eighths of an inch in diameter at the smaller end, the other half an inch across. It does not matter particularly about size of the larger end of either. Now you have your two tubes, one to be used for piping meringues and icings, the other for potatoes and cream-puff dough. Next take a

Please order by number, giving age, and allowing at least ten days to receive 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.]

Did you ever read that passionate, strange, somewhat mystic book, by Thomas Carlyle, called "Sartor Resartus"?—Well, "Sartor Resartus" simply means "the tailor patched," and I have just been thinking this morning of how many tailors have been patched during the time one can remember, even in regard to so trivial a thing as clothes.

Coming down street this morning I saw the store-windows filled everywhere with the pretty new summer goods, so airy, so light, so cool, so really "sensible," and my mind darted back over the years, singling out one incident, or scene, rather, which still clings, as such unimportant things will cling sometimes, when more momentous ones have been long forgotten. Again I sat in the old church, a very little girl, looking about with awed eyes on the Sunday splendours of the church folk—and, indeed, even Solomon in all his glory had never been arrayed like one of these. I think it must have been about the first time that clothes impressed me—I cannot remember anything of fashions before that, at a distance, and perhaps that

EATON'S CATALOGUE

SPRING AND SUMMER

1911 ISSUE No. 98

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BLACK TAFFETA SILK COAT

SPECIAL PRICE **10⁰⁰**



J-41210. This Beautiful Black Taffeta Silk Coat is made with a semi-fitted back, finished with an elaborate design of silk cord embroidery which extends over the shoulders; the length is 52 inches, being extended to this depth by the use of a deep modified flounce, which is finished with silk cording; shawl collar and turn back cuffs finished to match; three large crochet silk buttons with cord loops form the closing, and a facing of self is used, which develops into a deep shoulder lining. Before selecting this coat as our special to sell at ten dollars, we had several styles submitted with the prices cut down, as only prices can be cut by our modern methods of manufacture. Materials imported in large quantities for our Factory and garments sold from Factory to wearer means a real tangible saving to our customers.

Try This Home-Made Cough Remedy.

Costs Little, But Does the Work Quickly, or Money Refunded.

Mix two cups of granulated sugar with one cup of warm water, and stir for 2 minutes. Put 2½ ounces of Pinex (fifty cents' worth) in a 16-oz. bottle; then add the Sugar Syrup. Take a teaspoonful every one, two or three hours.

You will find that this simple remedy takes hold of a cough more quickly than anything else you ever used. Usually ends a deep-seated cough inside of 24 hours. Splendid, too, for whooping cough, chest pains, bronchitis and other throat troubles. It stimulates the appetite, and is slightly laxative, which helps end a cough.

This recipe makes more and better cough syrup than you could buy ready-made for \$2.50. It keeps perfectly and tastes pleasant.

Pinex is the most valuable concentrated compound of Norway white pine extract, and is rich in guaiacol and all the natural pine elements which are so healing to the membranes. Other preparations will not work in this formula.

This plan of making cough syrup with Pinex and Sugar Syrup (or strained honey) has proven so popular throughout the United States and Canada, that it is often imitated. But the old, successful formula has never been equalled.

A guarantee of absolute satisfaction, or money promptly refunded, goes with this recipe. Your druggist has Pinex or will get it for you. If not, send to The Pinex Co., Toronto, Ont.

Winter is Hard on the Complexion!

It is often dreaded by the women anxious to retain or develop their good looks. The two extremes, indoor heat and outside cold, threaten a good complexion. Safeguard it against these changes by using



Princess Skin Food

The most beneficial unguent and emollient for this purpose made. Use it before dressing to go out. After wiping it off use a pure, delicate face powder (the Princess Powder, 50 cents, is excellent), and you will come in knowing that your skin is improved instead of harmed. For lines and wrinkles, a fading and flabby skin and sagging muscles it is most satisfactory. Price \$1.50, postpaid.

Superfluous Hair

MOLES, WARTS, etc., eradicated permanently by our most reliable method of Electrolysis. Satisfaction assured. Booklet "F" and sample skin food mailed free.

Hiscott Dermatological Institute
61 College St., Toronto.

Just Six Minutes to Wash a Tubful!

This is the greatest washer the world has ever known. So easy to run that it's almost fun to work it. Makes clothes spotlessly clean in double quick time. Six minutes finishes a tubful.



Any woman can have a 1900 GRAVITY WASHER On 30 days' free trial.

Don't send money. If you are responsible, you can try it first. Let us pay the freight. See the wonders it performs. Thousands being used. Every user delighted. They write us bushels of letters telling how it saves work and worry. Let the 1900 Washer pay for itself. Just send us 50 cents each week out of the money it saves you. Write to-day for our Free Washer Book. It explains the "easy payment plan." Tell us your nearest freight station. Address me personally for this offer. F. A. D. Bach, Manager, The 1900 Washer Co., 357 Yonge Street, Toronto, Ontario. The above offer is not good in Toronto, Winnipeg, or Montreal and suburbs. Special arrangements made for these districts. 2190D.

piece of pillow-ticking and make a funnel-shaped bag with a small opening at the small end, to admit the tube. Do not fasten the bag to the tube, simply slip the latter in when required; if the opening in the bag is small enough, the tube will stay in place while you are piping the mixture through. When ready to use, put the mixture in the bag and squeeze through, twisting into whatever ornamental shapes you please. Be sure to boil the bag after each using.

Your occupation must depend upon your talents, of which we know nothing. There are very few positions open to girls outside of the ordinary list,—teaching, type-writing, bookkeeping, nursing, millinery, dressmaking, and clerking. In some places, excellent positions in libraries are to be had, but librarians are beginning to demand assistants who have attended regular librarians' schools. This is an age of specialization. You will have to think out what you are best fitted for, then specialize with all your heart.

Garden Matters.

Dear Dame Durden,—My father has taken your paper for some time. I always enjoy the Home Department very much.

I am writing to see if any of the chatters could tell me if it would be safe to plant a garden on a piece of new land which was cleared and sown with potatoes last year. The wireworm almost destroyed the potato crop. Do you think they would affect garden vegetables?

We have a great many dahlia bulbs. Do you think if we planted them in a box in the cellar they would grow? We have a hot-water furnace, and cellar is quite dry. Have any of the chatters grown dahlias from seed? MISS M. E. J.

Wireworms are likely to be destructive on all growing things, particularly so perhaps on root crops in the garden. However, if late fall plowing was done to break up the pupae and cells of the beetles that produce these worms, your land will not likely be infested so much this year. Wireworms are usually most numerous in sod land that has just been broken up. Persistent plowing in late fall is the best remedy.

Dahlia bulbs may be started in a box in the house, but do not keep them in the cellar after the first sprout appears; bring them to a window, and keep in a temperature warm enough to keep them growing slowly and steadily, yet not hot enough to make them grow fast and spindly.

House Decoration.

Dear Dame Durden,—Am writing to ask you a few questions on furnishing a parlor. The room is very large, eighteen by twenty-one, and ten feet high. There are three large windows, two facing the south, and the other facing the west. In the center of the outside wall is a fireplace. What color would you suggest painting the woodwork? Would a carpet look better than a rug in a large room like this? Also, what color should the carpet and wall paper be? What kind of curtains would you suggest, lace or madras, or both? Would a drape, stencilled to blend with the other colors of the room, be all right for the mantel above the fireplace? What kind of material would you advise for stenciling? Thanking you in advance.

Oxford Co., Ont.

SALLY.

You might have the woodwork white, or you might have it stained in any wood-tint that suits you. Personally, I should like a large 9 x 12 rug—I do not like carpets at all—but this is merely a matter of taste. Rugs are often made of strips of carpet, with a border all round, and are considerably less expensive than those woven in one piece. The color of rug and wall paper must depend upon your own preference. A handsome brown wall, with green in the frieze and green and brown rug, would look well; or you might prefer gray-green wall with darker green rug; or even a gray wall with dark olive rug, and touches of rose or green in frieze and curtains. Perhaps, if blue is a favorite color, you would like a cream wall with touches of gray-blue, and a rug of a deeper blue to harmonize. A great many of the good wall papers are "grayed" now, to take off any harsh or crude effect, of course, this is to be looked for chiefly in the blues and greens.

Madras, or heavy spongeshed net cur-

Do You Grow BARLEY?

If so, grow O. A. C. No. 21. It is the best. Our price while the stock lasts is \$1.10 per bush. in 5-bush. lots or over. Bags free.

SEED OATS

In this day of intensive farming it has become absolutely necessary to secure the largest possible return from the land, and as oats have become the most important and valuable crop, special attention should be given to the selection of seed. Herewith find prices for some splendid proven varieties. Prices per bush., f.o.b. Toronto, bags free, in 5-bush. lots or over, Lincoln 80c., Early White Cluster 80c., White Wave 80c., Canadian-grown Regenerated Abundance 80c., Canadian-grown Regenerated Banner 80c., Scotch-grown Regenerated Banner \$1.25, Daubeny (for mixing with 6-rowed barley) 90c., Black Goanette 90c.

CLOVER & TIMOTHY

Ninety-nine times out of one hundred we can save you money on Red Clover, Alfalfa, Alsike Clover and Timothy Seed. This week's prices per bush. for our best brands Clover and Timothy are (we will pay freight in Ontario on orders of 200 lbs. or over on Clovers and Timothy): "Sun" Red Clover, \$9.85; "Sun" Mammoth Clover, \$10.00; "Gold" Alfalfa, \$14.00; "Ocean" Alsike, \$10.75; "Crescent" Timothy, \$6.65; "Diamond" Timothy, \$7. These all grade No. 1 Government Standard. Allow 25c. each for bags.

We will be pleased to send samples of identical lots, clover and timothy, also seed grain.

FERTILIZERS

PRICES F.O.B. TORONTO	
Nitrate of Soda, per ton.....	\$57.00 or \$6.00 per sack of 200 lbs.
Acid Phosphate, ".....	18.50 " 2.25 " 200 "
Muriate of Potash ".....	49.50 " 6.00 " 224 "
Sulphate of Potash ".....	58.00 " 7.00 " 224 "

Before you order your Corn or Roots see our Catalogue.

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GEO. KEITH & SONS

SEED MERCHANTS SINCE 1866

124 King Street, East, Toronto East.

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"Crystal Diamonds"

may cost a few cents more on the hundred pounds than other lump sugar. Good things always cost more than inferior quality.

However, ST. LAWRENCE "CRYSTAL DIAMONDS" are really the most economical Sugar, because they go further on account of their matchless sweetness due to perfect purity.

To appreciate the superiority of St. Lawrence Sugar, compare it with any other sugar.



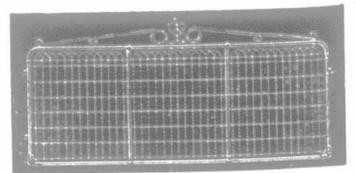
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MONTREAL. 31



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As well as our Field and Lawn Fence have distinctive features. The lower corners of our gates are all connected by a heavy malleable elbow. This feature makes a strong, durable gate. The design shown is one of our many styles. Our booklet, free on request, shows a complete line of Farm and Lawn Fence, and our new Poultry Fence, which is in great demand.



The one-piece endless stay lock shown is used in the manufacture of all grades of Cyclone Farm Fence. Send for a sample hold-tight lock. Examine it and you will use Cyclone Fence. If our goods are not represented in your district, write to us for our agency proposition.

The Cyclone Woven Wire Fence Co., Ltd.

138 Youville Sq., Montreal, Que.

1170 Dundas St., Toronto, Ont.

tains, are good, if well chosen; also, pongee, with lace insertion, and net outside curtains next the glass. Drapes for mantels are seldom used now. If you want to do some stencilling, better use it on cushions, or on curtains for living-room or bedroom windows. Scrim is a splendid curtain material for stencilling; burlap and crash are very good for cushion-covers, etc.

Soap from Goose Oil.

Dear Dame, Durden,—I have often thought I would write to the Ingle Nook, but kept putting it off, as it is so easy to put off writing letters when one is always busy. I am always interested in your department, I get so many useful hints from it—your own, as well as all the other chatters, are so helpful. I noticed Nan's inquiry for a recipe for making soap from goose oil, so I thought I might be able to help her. I make all my own laundry soap, and I use duck oil, or dripping, which, I suppose, is about the same as goose oil. I use any mutton or beef tallow I have with it; you know there is always some you don't use for cooking, especially after killing at home, so I save any I don't use for cooking all the year, and make my soap every winter. I have enough left that I made last winter to do me all the coming summer, so I don't need to use the new till it has plenty of time to get dry, and it lasts better. I think the goose oil would be all right by itself, but if Nan would like to mix tallow with it, she can buy beef tallow all rendered at the butcher's, which they sell for soap-grease at 6 cents a pound. Now I get Gillett's or Dignan's lye, and for every tin of lye, it takes five and one-half pounds of grease. There are always directions around the tins, and if Nan will read them carefully, and follow them precisely, I am sure she will have just as nice soap as I always have. Be sure not to stir it longer than till it begins to look creamy, or, as the directions say, till it is of the consistency of honey, else the lye and grease will separate. I hope this will be of some help to Nan, and others, too, who have not tried making soap, because it is so simple.
Huron Co., Ont. PRIMROSE.
Many thanks, Primrose.

When the Fruit Runs Short.

When the sealers are empty in the spring, it is well to know a variety of ways of preparing the dried fruits, apricots, prunes and figs, also such fresh fruits as may be in season, e. g., oranges and bananas.

Stewed Dried Fruit.—Wash the fruit well, soak over night in warm water, then simmer in the same water until very tender. When nearly done, add a very little sugar. Serve alone, or with whipped cream.

Apricot Sponge.—Soak ½ lb. dried apricots over night, then cook until tender. Meanwhile, soak ½ ounce gelatine in ½ cup cold water for half an hour. Drain the apricots, save the juice, and press the pulp through a potato-ricer or colander. Measure, and if there are not two cups pulp, add juice to make that amount. Stir the gelatine and 1 ¼ cups sugar over hot water until dissolved. Add to the pulp, put in a cold place, or on ice, and stir occasionally until somewhat stiffened, then add whites of four eggs beaten stiff, and beat the whole until foamy. Turn into a mould and stand on ice for several hours, or leave in a cold place over night.

Banana and Cream.—Slice six bananas, and pour over them any fruit juice that may be on hand. Let soak for two hours, then serve with cream and sugar.

Banana Foam.—Mash bananas and mix with them the whites of eggs beaten stiff. Use the yolks for a soft custard to pour over.

Banana Fluff.—Slice six bananas, sprinkle with lemon juice and coconut, and chill for an hour. Mash smooth with a wooden spoon, adding powdered sugar to sweeten. Lightly fold in the stiffly-beaten whites of two eggs. Freeze a little, then beat in half pint whipped cream, and finish freezing in the ice-cream freezer.

Orange Light.—Pare six oranges and cut into thin slices, pour over them one cup of sugar, and stew gently for ten minutes. Now pour over the top a custard made with a pint of milk and the

yolks of four eggs. Beat the whites to a froth with a little sugar, spread over the top, and set in the oven to brown. Serve cold.

Orange Dessert.—Slice six oranges and lay in alternate layers with grated coconut and a sprinkling of sugar. Let stand a while before serving.

Orange Marmalade.—Slice very finely two dozen unpeeled oranges and two lemons, removing seeds. Measure the juice, and add enough water to make three quarts liquid. Put all in a crock or granite kettle, cover, and set in a cool place over night. Next bring slowly to boiling point, and simmer until the peel is tender, then stir in one pound sugar for every pint juice, and boil until the skin is clear. When cool, turn into jelly glasses and cover with melted paraffine.

Mock Maple Syrup.—Boil some clean corncobs, strain, add sugar to make a syrup when boiled down. When cool, add a very little vanilla.

Another Orange Marmalade.—Peel four dozen oranges, quarter and take out seeds and inner skin as much as possible. Soak the peeling over night in salty water, and in the morning boil it in clear water until tender. Now chop it fine and add juice and pulp. Weigh, and add an equal quantity of white sugar. Let come slowly to a boil, and let boil half an hour, stirring carefully.

Fig and Orange Salad.—Put in a dish half pound stewed figs cut in slices. On top place the pulp of three oranges. Serve with French salad dressing, or simply with cream and sugar.

Our Scrap Bag.

Get some suet and try it out, says Farm Journal, then mix it with lard. It is more helpful than all lard, and makes inexpensive shortening.

Always set an umbrella to drip handle down. It dries more quickly that way, preventing rusting and rotting of the silk at the top.

To Clean Tinware.—Apply common soda with a moistened newspaper, and polish dry with another.

To make buttonholes strong in children's clothes work over ordinary soft wrapping cord; hold it on the inside, as near the edge as possible.

To Cure Cold Sores.—Apply sweet spirits of nitre on a bit of cotton.

When children refuse to take castor or olive oil, try this plan: Squeeze some lemon juice into a glass, add the oil without stirring, and on top of this squeeze some more lemon juice. The oil will slip down unnoticed.

Blue in various shades is to be very fashionable this summer.

An easy rule in computing how much wall paper will be required, is the following: For rooms from 7 to 9 feet in height, measure the number of yards around the room and multiply by 2. The resultant figure represents the number of full-length strips. For each ordinary-sized window and door, allow two strips each. Subtract this from the first figure, and divide by 5. This will give you the number of double rolls required. This estimate makes allowance enough so that the trimmings fill in odd spaces.—Country Life.

Here is an admirable "Spring Tonic"; the prescription was given me by a reputable physician, and will be found efficacious for all who will try it. Let me give it as briefly as possible. Halve your food, double your drinking water, and do not have it ice cold; treble your outdoor exercise, and quadruple your consumption of fresh air and laughter. The mentally active person requires a large amount of ripe, first-class fruit and nuts, little meat, and grains (cereals) but seldom. Partly mental and physical laborers should use fruit and vegetables, and more nuts and grains than the purely mentally employed. While physically active individuals require all combined, and the diet must be varied and tempting alike. Let everyone eat all the greens possible, at all seasons. Acid fruits are not easily digested by some, and cause a disturbance, such as gas, even cramps; these folks should try stewed fruit, and thus overcome the difficulty.—Selected.

MUSICIANS ADMIRE THIS SHERLOCK-MANNING ORGAN

Beautifully cased — will adorn any church. Its special bellows greatly reduce pumping exertion. Exquisitely modulated for solo work; particularly adapted to choral accompaniment.



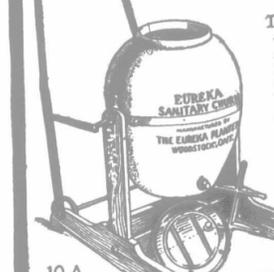
HEAR ITS RICH TONE!

Extra Wide Tongue Reeds produce a volume of tone that is always majestic, resonant, mellow and golden, with great carrying power.

May we send you full details?

SHERLOCK - MANNING PIANO AND ORGAN COMPANY
LONDON, CANADA.
(No Street Address Necessary.)

EUREKA SANITARY CHURN



There's no comparison between the ordinary wooden churn and the "EUREKA". Barrel is stoneware—top is clear glass. Besides being absolutely sanitary, the glass top enables you to see how the churning is coming along without opening the churn. Also made with Aluminum top. The "EUREKA" is the easiest churn on the market to operate. By tilting back the frame until the weight rests on the wheels, the churn can be quickly and easily moved—while the barrel remain upright. If your dealer does not handle the "EUREKA," do not take a substitute but write us for catalogue. EUREKA PLANTER CO. LIMITED, WOODSTOCK, ONT.

The Student Enjoys Life at ALMA COLLEGE

because she studies in the atmosphere of a true home, where her talents are developed without forcing—where her education is mental, spiritual and physical, according to her needs. She has the advantage of individual instruction by highly competent educators. She gets proper exercise and an abundance of good food, well cooked and well served. She lives in desirable social surroundings. Her training at Alma helps to fit her for any pursuit in life—for home responsibilities. Situation attractive. Extensive grounds. Tuition low, governed by course. Send for prospectus and terms. Alma means above all, character development. Address the president, Robert I. Warner, M.A., D.D., St. Thomas, Ontario.

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.

BARRED ROCKS

EXCLUSIVELY.
CANADA'S CHAMPIONS.

FIVE-DOLLAR COCKERELS

Reduced in price after April 1st to \$3 each. Orders booked now. Sati faction guaranteed or money refunded. JOHN PRINGLE, LONDON, ONTARIO.

ANCONAS, White Leghorns, Fertile Eggs. New circular free. Use my germ killer. Twenty-five cents, postpaid. Saves little chicks. Edmund C. Apps, Box 224, Vice-President International Ancona Club, Brantford, Ontario.

A GRAND lot of Barred Rock cockerels and pullets. Exhibition and laying strain. Eggs from best pens, \$1.00 per setting. A. E. Donaghy, Colborne, Ontario.

BARRED ROCK EGGS—Choice utility stock. Heavy winter layers. One dollar per fifteen. Satisfaction guaranteed. Arthur Hayward, Eastwood, Ontario.

BARRED ROCK COCKERELS—Eggs for hatching from pure-bred birds. Write me. Leslie Kerns, Freeman, Ontario.

BARRED ROCK EGGS—Choice stock, one dollar for thirteen. Satisfaction guaranteed. Nelson Smith, Jerseyville, Ontario.

BUFF ORPINGTONS, Barred Rocks, White Wyandottes. Pure-bred, carefully mated, and bred to lay. Farm-raised, strong, vigorous stock. Eggs that hatch. Write for price card. "Ingleside Farm," Hamilton, Ontario.

BUFF WYANDOTTES—Large, vigorous, pure Golden Buff birds; excellent layers and prizewinners. Eggs, \$3.00 per 15. W. Fyfe, Port Arthur.

BUFF ORPINGTONS—150 pure-bred cockerels and pullets, bred from exhibition stock. Splendid breeders; prices reasonable; eggs in season; satisfaction guaranteed. Hugh A. Scott, Caledonia, Ontario.

B. P. ROCK EGGS—One of the best laying strains in Canada. One dollar per setting. Mrs. J. B. Henry, Waterdown, Ont.

BABY CHICKS—Single-comb Black Minorcas, Rose-comb Brown Leghorns, and Barred Rocks. \$6.00 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, Ontario.

CANADA'S BEST BARRED ROCKS—Winners wherever shown. Bred for beauty and utility. Prices moderate. Thos. Andrew, Pickering.

CLARK'S BUFF ORPINGTONS—25 beautiful cockerels, bred from New York and Ontario winners, at \$2.00 and \$3.00. Good laying strain, good color and type. A few females, \$1.50, \$2.00. Eggs for hatching from National winning stock. Free illustrated mating list. J. W. Clark, Cainsville, Ontario.

EGGS FOR HATCHING—From silver-cup winners. Barred and Buff Rocks; 13 for \$1.00, 30 for \$2.00. Joseph Forter, Brantford, 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 FOR HATCHING—Barred Rocks exclusively; utility birds. Males, nine to ten pounds each; females, seven to eight. Good layers. Standard color. One dollar per setting. A. E. Sherrington, Walkerton, Ont.

EGGS FOR HATCHING—Pen 1, White Wyandottes, containing pullets from Guild's \$6.41 a year per hen strain, headed by cockerel from Lyles' record layers, headed by cockerel from Goodes' prizewinners, Scotland, \$5.00 per 15. Other pens as adv. in last week's issue, \$1.50 per 15. Baby chicks, from all pens except No. 1, 25c. each. Order early. Cash with order. M. O. Laing, Corwin, Ont.

EGGS from choicest matings of three greatest breeds—Single-comb Black Minorcas, Cornish Indian Games, White Plymouth Rocks. Our customers win. Zimri Seely, Iroquois, Ontario.

EGGS for hatching, of several varieties. \$1.00 per 15. Send for mating list. Robert Houser, Canboro, 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.

FOR SALE—Snow-white Leghorns, cockerels and pullets. Highest scoring quality, single-combed. J. B. Hughes, Ideal Poultry-Yards, Collingwood, Ont.

FOR SALE—Brome Turkeys, won first, second prizes; first, third hens, London Show. Also choice Partridge Wyandottes. R. G. Rose, Glanworth, Ontario.

FORTY BARRED ROCK COCKERELS FOR SALE—From prize stock, one to three dollars. Write for egg record. Jas. Coker, Jerseyville, Ontario.

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, Sealorh, Ontario.

FOR SALE—Pure-bred White Wyandotte cockerels and eggs. V. M. Stanley, Granton.

LEGHORNS (Single-comb White, Single and Rose-comb Brown), White Plymouth Rocks, Columbian Wyandottes. Eggs, two-fifty per thirteen; express paid. Kedwell Bros., Petrolia, Ontario.

MINGOCAS—Record layers; Rose-comb Black; winners of lots of prizes. Eggs, \$3.00 per 15; \$5.00 per 30; \$15.00 per 100. Guaranteed to hatch. Square dealing. Walter Bowron, care Sandford Co., Hamilton.

ONE DOLLAR A SETTING for eggs from well-bred P. R. birds; bred from Guelph College laying strain. Also pure-bred Rhode Island eggs. Mrs. Berry, Box 22, Guelph.

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.

ROSE-COMB BROWN LEGHORN EGGS. \$1.25 per 15. W. M. Sproule, Westbrook, Ontario.

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

REGAL strain, Rose-comb White Wyandotte roosters, \$2.00 and \$3.00; splendid birds, from prizewinning stock. Fertile eggs; 15 eggs, \$2.00. Mrs. Percy Clapp, Tecumseh, Ontario.

S. C. W. LEGHORNS—I breed according to the American Standard, but to fill the egg basket, not the exhibition coop. During past months of December, January and February, flock laid 398 dozen. Eggs, \$1.00 per setting, from selected matings. Jno. H. Stewart, Elliott, Ontario.

WHITE ROCK Cockerels, three dollars. Eggs from imported Black, Buff Orpingtons, two dollars; from White Rocks, headed by first-prize cock, Toronto, three dollars, fifteen eggs. Fred A. Andrews, London, Canada.

45 VARIETIES Standard-bred Fancy Poultry. Handsome 1911 catalogue free. S. A. Hummel, Box 23, Freeport, Ill.

S. G. HANSON'S STANDARD WHITE LEGHORNS

The breeding hens for the season 1911 are part of the flock of 402 pullets which in January, February and March established a record for flocks of that size, by laying 23,532 eggs. The cockerels heading the breeding pens are bred from trapped hens with individual records in their pullet year of 200 eggs and over. Birds from these matings must give exceptionally good results. Book your orders for hatching eggs well in advance, if you want early-laying pullets.

EGGS FOR HATCHING
March and April—\$3.00 per 15; \$15.00 per 100.
May—\$2.50 per 15; \$12.50 per 100.
June—\$2.00 per 15; \$10.00 per 100.
Prices of day-old chicks on application.

S. G. Hanson, Hillcrest Poultry Farm, Box 147, Duncan, B. C.



DO IT NOW

Don't wait till you get into the field with a run-down horse. Get a 50c. package of

HACKNEY STOCK TONIC

and use it now. It will put your horse in shape to start the work you have before them. You will say as others have said, "IT IS WORTH DOUBLE." Sold all over Canada, or write to 18 Millstone Lane, Toronto, for booklets, etc.

Dr. T. H. Hassard, of Markham, Ont., importer of Clydesdales and Hackney horses, writes that he has a consignment of 22 choice Clydesdale fillies which arrived in St. John, N. B., last week, and are expected at Markham on March 17th, and which he will be pleased to show to anyone interested.

GOSSIP.

BIRMINGHAM SHORTHORN SALE.

At the Birmingham Shorthorn Show and Sales, March 1-3, there were 646 entries, and trade was fairly good. The sensation of the sales was the purchase, by Wm. Duthie, Collynie, at 1,500 guineas (\$7,875), of Graham Stirling's young bull, Strowan Clarion, placed first in the class for bulls between 10 and 21 months old; 250 guineas was the second highest price, realized for the commended bull in the class between 18 and 21 months old, Gunthorpe Model, contributed by Mrs. Chas. H. Dixon, Oakham; 240 guineas was paid by Sir A. Henderson for C. E. Gunther's Tongwood Hope, placed fourth in the class between 21 and 30 months. The same price was paid by Mr. Stewart, an English breeder, for the Hon. W. F. D. Smith's Earl of Yowdon, second in the class between 18 and 21 months old. The highest price for a female was 71 guineas, given for the second-prize yearling heifer.

AYRSHIRE CLUB ORGANIZED.

The Ayrshire breeders of the Counties of Hastings, Prince Edward, Northumberland and Durham and Peterboro, met in Campbellford on Tuesday, February 7th, and organized a local club of Ayrshire breeders. The purpose of this club is, in the main, to foster the interests of Ayrshires in the counties named, to encourage breeders more generally to adopt the Ayrshire cattle, to assist the breeders locally in marketing their cattle and their produce to the best advantage, and generally to promote the interests of the breeders, and to become better acquainted one with another. The organization, as formed, will be known as the "Menie District Ayrshire Breeders' Club." The officers elected are:

Honorary President, Wm. Stewart, Menie; President, Alex. Hume, Menie; Vice-President, John McCubbin, Warkworth; Secretary-Treasurer, W. Truman, Crookston.

The Ayrshire breeders present were surprised to learn that there were so many other brother breeders of Ayrshires in the local counties, there being some seventy or more. In deciding upon a name for the local organization, the members chose to "hitch their wagons to stars." In that they took advantage of the reputation which their two well-known local fellow breeders, Alex. Hume and Wm. Stewart, of Menie, held. Thus, they calculated that much would be gained by the club from the start, which otherwise would take some time and much expense to obtain.

LONDON HACKNEY SHOW.

The 27th annual show of the Hackney Horse Society was held at Islington, London, the last week in February, and the entries and attendance evidenced a growing interest in the breed. In a class of 23 two-year-old stallions, first award went to Chas. Clark's The Viceroy, a chestnut, by Hopwood Viceroy. The second was Mr. Surfleet's Beckingham Viceroy, also a chestnut, by the same sire. In the three-year-old class, not exceeding 15.1, W. W. Rycroft was first with Angram Astonishment, a dark chestnut son of St. Thomas, dam by Ganymede. John Conchar was second with Warwick Matchless, a handsome chestnut. In the class over 15.1 and under 16 hands, in a class of thirty-one, the first award went to John MacKeague's King's Proctor, by Mathias; second went to R. G. Heaton's Sprightly Danegelt, by Royal Danegelt. In the class for stallions five years old and over 15.2 hands, the first was the seven-year-old Hopwood Viceroy, by Royal Danegelt, out of Ophelia, the greatest Hackney mare ever bred. John Beal was second, with the chestnut five-year-old, King of the East. A notable appearance was made by the veteran Gentleman John (3624), now 21 years old.

In four-year-old stallions over 15.2, and those not exceeding 15.2, Sir Walter Gilbert's famous Antonius was a clear winner. In the class over 14, and not over 15.2, there were twenty entries, and Alex. Morton second with Halwig of Tower Rais, a light chestnut, by Mathias; Walter Briggs was second, with Albion Wildfire, by Polonus. For the supreme championship, the struggle was between Antonius and King's Proctor. The order was: 1. King's Proctor, 2. Antonius, 3. Hopwood Viceroy.

At a sale of Berkshires, at Winston, Ill., March 1st, the 46 head sold brought an average price of \$80. The three-year-old sow, Lee's Gem 3rd, brought \$500, the top price of the sale, and a yearling boar brought \$300.

At a sale of Percherons, by Val. Thomas, Jr., at Hopedale, Ill., February 27th, the 20 head offered brought an average price of \$463.25, the highest price being \$1,215, for a three-year-old imported mare. A five-year-old mare sold for \$1,100.

Volume 23, of the Hackney Studbook of Great Britain and Ireland, has been issued from the press, and a copy received at this office, thanks to Secretary Frank F. Euren, 12 Hanover Square, London, W. This volume contains 475 pages, and pedigree records of stallions numbered from 11274 to 11630, and of mares numbering from 21160 to 21786, a total of 982, together with rules of entry and a list of members of the Society.

We call the attention of Shorthorn breeders and farmers generally, to the sale of Wm. Hamilton, of Bright, Ont., which is to take place on the 29th of March, at his farm, two miles from Bright, G. T. R., and four miles from Innokip, C. P. R., main line. Teams will meet the morning trains at both stations. The Shorthorns are mostly of the Cruickshank Buckingham strain, and consists of a choice lot of cows and heifers, (mostly in calf) that are old enough to breed. More notice will be given next week. Meanwhile, make a note of the date, and plan to attend the sale.

DONALD FERGUSON'S SALE, SHORTHORNS AND CLYDESDALES.

Pure-bred Shorthorns, Clydesdales, Shropshire sheep and Yorkshire swine, the property of Donald Ferguson, Glanworth, Ont., will be sold by auction on March 28th, as advertised in this issue. By way of description, the Shorthorns have chiefly been bred on the farm, although, from time to time, a few have been added, as the proprietor has seen fit. Among the families included are Kinellar Minas, Bruce Rosebuds, and Sit-tyton Village Blossoms and Duchess of Glosters. The cows have been hand-milked, and mostly used for combined dairy and stock-breeding purposes, and are a profitable class. There are also ten young bulls of serviceable age, which should command the attention of purchasers. The imported Clydesdale stallion, Lorne Prince [4995] (12230), is an exceptionally well-bred horse, combining, as he does, the blood of Prince of Albion, Darnley and Prince of Wales. He has proved a good and sure stock-getter, and, as he is rising nine, he has many years of usefulness before him. Several likely, good young mares are also included, together with pure-bred Shropshire sheep and Yorkshire swine, the whole forming a particularly attractive sale. Intending purchasers will be met at Glanworth Station, between London and St. Thomas.

TRADE TOPIC.

Two valuable books, one called "Pointers for Inventors," and the other "Pointers for Patentees," are about to be published, the first dealing with methods successfully employed by inventors to raise money to patent their invention, and the second dealing with the methods successfully employed by patentees in either selling, or manufacturing, under their patents. Copies of these books can be obtained at the nominal charge of 25 cents each in stamps, from Egerton R. Case, Temple Building, Toronto, Ontario.

They had reached the outer portals of the front door, and were there going through the process of parting, very lingeringly.

"When I say good-night to you this evening," gurgled Mr. Youngslo, "do you think it would be proper for me to place one reverent kiss upon your fair hand?"

"Well," she sighed, softly, as she laid her head quietly on his shoulder, "I should consider it decidedly out of place."

MARCH 16, 1911

GOSSIP.

J. & W. Russell, Richmond Hill, Ont., advertise for sale, from their noted herd of Shorthorns, four young bulls, 12 to 16 months old, sired by Imp. Lord Gordon, of the Cruickshank Brawith Bud tribe. They should find ready buyers as herd-headers.

CHAMPION HOLSTEINS.

The renowned herd of champion and official-record Holstein cattle, the property of M. L. & M. H. Haley, of Springford, Ont., when visited by a representative of "The Farmer's Advocate" a few days ago, was found in prime condition, and the great cow, Calamity Starlight Butter Girl, who won the championship in the dairy test at the late Guelph Winter Show, and showed the phenomenal butter-fat test of 5.5 per cent., was never in better health, nor never produced a larger flow of milk, and when it is remembered that for three consecutive years the championship for best cow of any breed in the test at the Guelph Show has been won by this herd, 1908 and 1909 by Lady Aaggie De Kol, whose butter-fat test was 4.3 per cent., and 1910 by the above-mentioned Calamity Starlight Butter Girl, and that the entire entry from this herd at the above test showed a butter-fat test of over 4 per cent., it will surely be conceded that the breed does not produce cows of a higher standard than those that go to make up the Springford herds. This happy result has only been accomplished by persistent and intelligent concentration of effort to accomplish a certain end, and the work of official testing and retesting is still going on. Following are the official 7-day butter records of a few of thirty-odd in the herd that have made good: Lady Aaggie De Kol, 27.26 lbs., at six years of age; Calamity Starlight Butter Girl, 22.60 lbs., as a three-year-old; Queen's Butter Baroness, winner of first prize in the Guelph test as a two-year-old, 23.66 lbs., as a junior three-year-old with a butter-fat test of 4.4 per cent.; Aaggie Cornelia's Posch, 21.64, as a three-year-old; Artalissa 2nd, 20.15 lbs., as a four-year-old; Fairy Favorite Mercena, 15.88 lbs., as a two-year-old; Lady Aaggie De Kol 2nd, 14.53 lbs., as a two-year-old; Nellie Posch, 12.50 lbs., as a yearling; Tiny, 11.71 lbs., as a yearling. Of late, the bulls in service have been Prince Abbekirk Mercena, whose four nearest dams have official records that average, of milk, in one day, 80 lbs.; of butter, in seven days, 25 lbs. King Baron Mercena, by Count Mercena, whose dam and sire's dam's records average 27 lbs. The dam of King Baron Mercena is the great cow above mentioned, Queen's Butter Baroness. The main bull in service at the present time is Grace Fayne 2nd's Sir Colantha, a half-brother to the lately-dethroned world's champion cow, Grace Fayne 2nd's Homestead, whose record is 35.55 lbs.; also a half-brother to Grace Fayne 2nd's Girl, whose record is 30.25 lbs., he being a son of Grace Fayne 2nd, the dam of the two cows just mentioned, and her record is 26.30 lbs. butter in seven days, 107.32 lbs. in thirty days, and 102 lbs. milk in one day. The sire of this wonderfully-bred bull is Colantha Johanna Lad, whose dam's (Colantha 4th's Johanna) record is: butter, seven days, 35.22 lbs.; thirty days, 138.54 lbs.; one year, 1,247.82 lbs. Milk, one day, 106 lbs.; one year, 27,432.50 lbs. This is one of the best-bred bulls in any country, and he is breeding exceptionally well, his get being straight, and of marked type. A number of the calves are the get of this bull, including three bull calves, the balance, including the yearling heifers and several bull calves, are the get of the other stock bulls mentioned, and all are out of official-record dams. One of the bull calves is out of the Guelph champion, Calamity Starlight Butter Girl and sired by King Baron Mercena; another is out of the Guelph first-prize three-year-old, Queen's Butter Baroness, and sired by Grace Fayne 2nd's Sir Colantha; still another is out of the two-year-old Guelph champion, Lady Aaggie De Kol, and sired by the Grace Fayne 2nd. It is the intention of the Messrs. Haley to keep this calf to breed on the daughters of the stock bull, which should surely bring results. With the exception of this one young bull, all the others are for sale, both as females of all ages.

Suffragette vs. Aunt Salina

The Canadian housewife is much more interested in lightening household drudgery than in securing the right to vote. That is why the

New Century Washer

is so popular. It takes all the back-breaking labor out of wash day and sweetens the housewife's temper. It also thoroughly cleanses the clothes by forcing the water through them.

Send a post card for "Aunt Salina's Wash Day Philosophy." CUMMER-DOWSWELL, Limited HAMILTON, ONT.

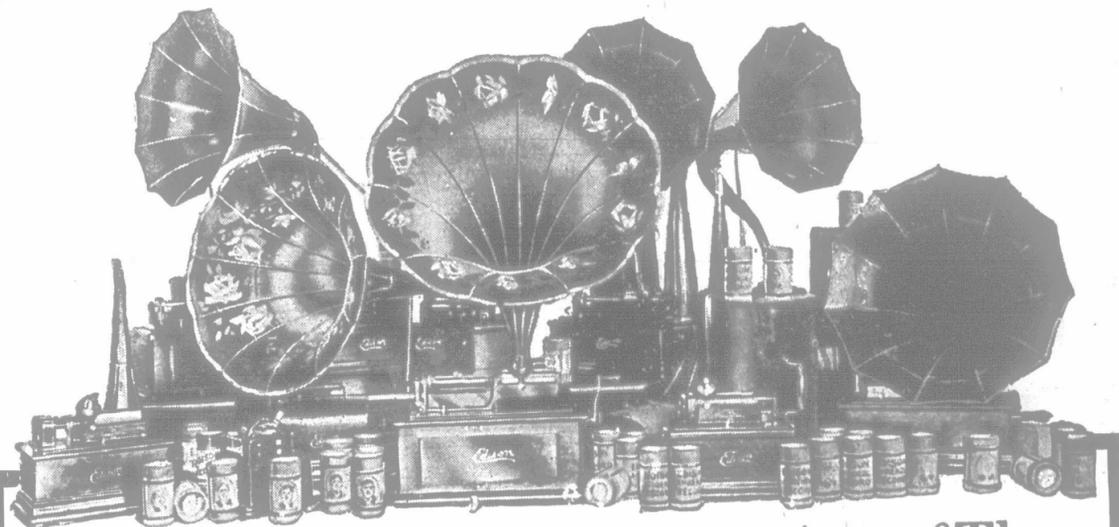


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Let the children drink all they want. Healthful, nutritious, delightful.

Absolutely pure. That rich chocolate flavor. Very economical.

The Cowan Co. Limited, Toronto.



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Yes, FREE. Shipped positively and absolutely free. You do not have to pay us a single penny either now or later. We don't ask you to keep the phonograph—we just ask you to accept it as a free loan. We do not even ask you for any deposit or any guarantee, not even any C. O. D. payment to us. All we ask is that you tell us which of the magnificent Edison outfits you prefer so that we can send that one to you on this free loan offer.

Just Take Your Choice You Don't Have to Buy Anything

Get any of the outfits shown above—your choice of records too. Simply get the phonograph and the records and use them free just as though they were your own. Entertain yourself, your family and your friends too, if you wish, with everything, from the catchiest, newest popular songs, side-splitting minstrels and vaudeville monologues to the famous grand operas, *Amberola* and other records sung by the world's greatest artists. Hear all this to perfection on the Edison Phonograph. After you have had all this entertainment absolutely free, then you may simply send the outfit right back to us at our expense. Now, if one of your friends wishes to buy such an outfit tell him that he can get the rock-bottom price, and, if he wishes, on payments as low as \$2 a month without interest. But that's not what we ask of you. We just want to send you your choice of the latest style Edison Phonograph free—your choice of records too, all free—then we will convince you of the magnificent superiority of the new style Edison. It will cost us a little in express charges to get the phonograph back from you—that is true—but we'll feel amply repaid for that, knowing that we have made you a friend and a walking advertisement of the new style Edison Phonograph.

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Get our handsome Free Edison Catalog and list of over 1500 records so you can select just the machine and the songs, recitations, etc., you want to hear on this ultra generous offer. Remember, there is absolutely no obligation on your part. All you need to do is to return the outfit at our expense when you are through with it. If you enjoy good music, and the finest and most varied entertainment that it is possible to imagine, or if you want to give your family and friends a treat such as they could not possibly get through any other means, then you should certainly send the Free coupon today. Don't wait—your name and address on a postal will do but the coupon is handier. No letter necessary. Be certain to write while the offer lasts. Better write today.

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STRATFORD, ONTARIO

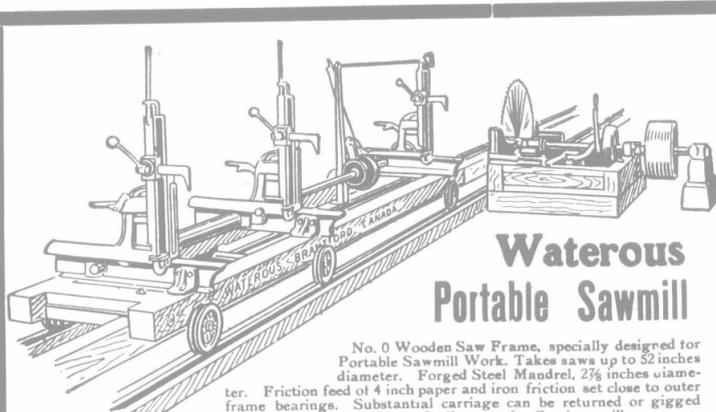


GOSSIP.

Volume 12, of the Percheron Studbook of America, has been issued, and a copy received at this office, through the courtesy of Secretary Wayne Dinsmore, Union Stock-yards, Chicago. The size of this volume has made it desirable that it should be printed in two parts, and it has, accordingly, been so completed, Part I. containing pedigrees of stallions, and Part II. that of mares. The book is now ready for distribution to parties who desire copies of same, and is available to members of the Percheron Society of America at \$3 per volume, and to non-members at \$5. The back volumes can also be furnished, VI. to XI., inclusive, at the same price. Volume 12 contains pedigree records of a very large number of stallions and mares, the two parts totalling over 1,200 pages. The new registration rules and regulations are also included, and the prospects for the Society and the breed are very bright, the demand for Percherons being greater than ever before, and profitable prices prevailing.

PERTH AND ABERDEEN SHORTHORN SALES.

At the Perth Spring Show and Sale of Shorthorns, the third week in February, 309 bulls sold for an average of £46 8s., as compared with an average of £53 4s. in 1910. The total number, male and female, 482, sold at the 1911 event, made an average of £39 10s., as compared with £48 2s., for 387 head, in 1910. The highest price for a bull at the 1911 sale was 720 guineas (\$3,775), for the red-roan, King George, calved January 23rd, 1910, first in his class (senior yearling), bred by the Hon. Sir James Sivewright, of Tulliallan, sired by the Saphock-bred bull, Broadhooks Earl (101655), and purchased by Mr. Rodgers, Manchester. Second in the same class was the red-roan, Findon Beau Ideal, calved January 8th, 1910, bred by P. B. McIntyre, Findon Mains, sired by Findon Ventriloquist (102229), dam Butterfly of Findon, sold for 180 guineas, to C. F. Lyall, Strome, Alberta, Canada. The roan, Princely Favorite, first in the Junior yearling class, calved March 4th, 1910, bred by W. A. Dron, Crief, sire Proud Favorite (84420), sold to Lord Lovat for 660 guineas. The second-prize winner in the same class, Proud Major, calved March 27th, 1910, bred by Jas. McWilliam, Fochabers, sire Pride of Avon, dam Mabel VI., by Bacchus of Dalmeny, sold to Mr. Rodgers for 400 guineas.



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No. 0 Wooden Saw Frame, specially designed for Portable Sawmill Work. Takes saws up to 52 inches diameter. Forged Steel Mandrel, 2 1/4 inches diameter. Friction feed of 4 inch paper and iron friction set close to outer frame bearings. Substantial carriage can be returned or giggered from 5 to 10 times as fast as feeding speed. Carriage will accommodate good size logs. Standard carriage for rack feed is 16 feet 11 inches long; rope feed 17 feet 6 inches long. Frame extra wide, of heavy red pine stringers, edges bound with heavy iron. Log seats heavy web. Six-inch eye-beams. Knees and rack cast in one piece. Knees have 3-inch independent taper movement, and are fitted with our patent upper and lower steel hook. Peel Dogs, operated by overhead, single-acting ratchet networks, having large ratchet wheel. Split steel setting and holding Pawls, designed to eliminate lost motion and permit a set of 1-16 inch. Steel-set shaft 1 1/2-1 3/4 inches diameter and 16 feet long. Carries pinions which operate knees, and is fitted with heavy cast iron hand-wheel for hand setting. Track 54 feet long. This is one of the finest portable sawmills made. It will pay you to send for our free catalogue, which describes it, as well as many others, in detail. Drop us a card to-day.

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BRANTFORD, ONT.

Make a big profit from every cow \$400

The Automatic Milk Scale and The Facile Jr. Babcock Tester

will show you in a short time which cows in your herd are paying a profit.

The Automatic Scale is made especially for weighing milk in the pail. There is a loose indicator on the dial that can be set at a thumb screw when the pail is on the hook. Then when the pail of milk is placed on the hook this indicator gives the exact net weight of the milk. It has another indicator that records the same as any spring balance so it can be used for weighing anything up to 20 pounds—larger sizes weigh up to 120 pounds.

The Facile Jr. Babcock Tester is designed especially for use in the dairy and on the farm. It is extremely simple in construction and operation. The working parts consist of but two cut gears and they are enclosed in a cast iron case to keep them free from dirt and to prevent their catching clothing, towels, etc. It turns easily without vibration or jar. It is sent complete with glassware, bottle brush, and full directions for use. It will pay you to have this scale and tester whether you milk three or thirty cows.

Our free catalog shows everything for milk dealers and dairymen at lowest prices.

W. A. Drummond & Co., 175 King St. East, Toronto, Ont.



At the Aberdeen Shorthorn Sale, the following day, the average for 221 bulls sold, was £24 13s., as against £24 11s. for 214 in the 1910 sale. The average for 244 head, male and female, at the late sale, was £22, as against £24 11s. for 228 head at the 1910 sale. The highest price for a female at the late sales was 210 guineas, for the fifth-prize yearling heifer at Perth, Clipper Keepsake, shown by Chas. Napier, Boyndie, Banff, sold to Mr. Cazalet, Kent. Mr. Lyal, Albert, secured the third-prize senior yearling at Perth for 80 guineas.

QUESTIONS AND ANSWERS.

Miscellaneous.

INDIGESTION.

I have a four-year-old horse that bloats after eating his meals. He eats well, but does not put on any flesh, and is dull. Have worked him but very little since last fall. What would be good for him?

D. B.

Ans.—Your horse has weakness of the digestive organs. Be careful about making any sudden change in his food. Give two drams each of gentian and ginger, twice daily, in damp food.

REARRANGING STABLE.

My barn is 60 x 90; stands east and west, with drive in east end, and stone stabling, with entrance from barnyard on the west. Have 16-ft. root cellar at east end all the way across stable. Horses stand along the north side, and cattle on south, with two short rows about 18 feet running from west end. Also have well in stable; water pumped by windmill to trough in yard at west end. This leaves much more room than is required for feed room. Can you tell me how I can rearrange stables to hold, say 10 horses, and about 40 cattle. I enclose rough diagram of present stables.

A SUBSCRIBER.

Ans.—Without disturbing present arrangement, would it not be possible to have another row of cattle extending from the end of south short row as far east as desirable. By having a five-foot feed passage between heads of cattle, and allowing seven feet for stall and manger, and six feet for gutter and manure passage, there would be left a five- or six-foot feed passage in front of horses. Narrow passages behind the cattle involve wheeling out the manure with a barrow, or hauling out with a one-horse rig.

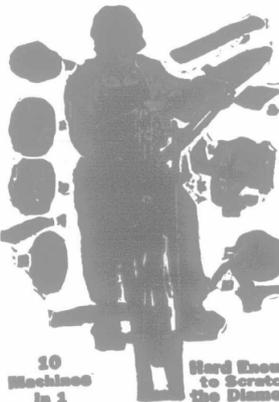
GOSSIP.

Those desirous of obtaining a first-class imported Shorthorn bull would do well to see, at an early date, the young imported bull, Benachie =69954=, offered by Geo. D. Fletcher, Binkham, Ont. He is a Sittytton Butterfly, bred by A. T. Gordon, Aberdeenshire, has just turned four years old, and is from one of the best cows in one of the best herds in Scotland, as his dam, Beatrice 22nd, produced Bandmaster, a first-prize winner at the Royal Show, and sold for 600 guineas. His sire, Scottish Farmer, a grandson of the great Scottish Archer, is from the same dam as the sire of the champion bull of 1907, Linkfield Champion, which sold for 1,500 guineas. Mr. Fletcher states that he has already had much inquiry for Benachie and his young bulls, through his recent advertisement in "The Farmer's Advocate," and has already sold the last of his young bulls by Benachie (imp.).

SPRINGBANK AYRSHIRES.

As a herd of sensational record-breakers in milk-production, the Springbank herd of A. S. Turner, of Ryckman's Corners, three miles south of Hamilton, easily ranks first among the many great Ayrshire herds of Canada. There is not a mature cow in the herd that will not give 50 lbs. a day when at her best, and several give over 60 lbs. a day, and up to 67 lbs., which great yield was given by Flora of Neidpath, and her daughter, Flower of Neidpath, gave 64 1/2 lbs. Fourteen of them are in the Record of Performance, and ten more are now in the test. Canadian Princess, the world's champion three-year-old, has a record of 11,377 lbs. of milk, testing 4.59 per cent., and 521 lbs. butter-fat, in 335 days. This cow has a bull calf, by the stock bull, Imp. Pearlstone of Glenora, a son of the famous cow, Imp. Edith of Lessnessock, whose record at thirteen years of age is 13,000 lbs., testing 4 per cent. Another of the great Princess family, and a sister to the champion, is Scotland Princess 2nd, whose four-year-old record is 10,182 lbs. milk, and 461.2 lbs. butter-fat. Another sister, Scotland Princess 3rd, is now in the test, and in seven months gave 9,706 lbs. milk, that has never tested below 4 per cent. Jemima of Springbank has a two-year-old record of 8,839 lbs. milk, and 395.3 lbs. butter-fat, in 338 days. This, at the time it was made, was a world's record for the breed at two years of age. A daughter of hers, Jemima 2nd of Springbank, as a three-year-old, is giving 50 lbs. a day. She, too, has a bull calf by the old stock bull, as has also her dam. Here are a pair of young bulls that should make most desirable herd-headers, if persistent-production breeding counts for anything. Speck of Springbank holds the world's record for a two-year-old, of 10,354 lbs., testing slightly over 4 per cent., and at the end of her year's test was gaining 25 lbs. a day, and freshened again in six weeks, bringing forth a heifer calf from which great things are expected. Briary of Springbank, as a three-year-old, has a record of 10,123 lbs. in 11 months, and her daughter, Briary of Springbank 2nd, as a two-year-old, is giving 50 lbs. a day, testing 3.08 per cent. These enumerated are representative of almost the entire herd, of which there are 68 head, whose type, appearance, and big, well-balanced udders, denote them mortgage-lifters in the fullest sense of the term. As assistant in service has been purchased the high-class young bull, Lessnessock Forest King (imp.), whose dam, Lessnessock Gem, has a four-year-old record of 9,840 lbs. milk in 9 months and 10 days. Coming herd-headers for sale are three young bulls six months of age, one out of Jemima of Springbank above-mentioned, one out of White Flos, with a record of 10,000 lbs. of 4.5-per-cent. milk in 7 1/2 months, the other, out of Helen of Springbank, whose one-day record is 60 lbs., and in April she gave 1,535 lbs., and in May 1,496 lbs.; butter-fat test, 4.02 per cent. This cow is the dam of Snowflake of Springbank, that in January of this year, in her test, gave 1,868 1/2 lbs. milk that tested 5 per cent. She, too, has a bull calf. Besides these three six-months-old bulls, there are half a dozen others, including the one from Snowflake, younger, but all most richly-bred.

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Remember—Alectrice is really manufactured precious stones. It is even harder than the hardest diamond. Alectrice will scratch a diamond and cut glass like a knife cuts an apple. Send the coupon today and get full explanation of our Great 10 Day Free Trial Offer. Do this now. Do not delay. 5033 TORONTO, CANADA Harman Supply Co., U. S. Office: 162 Harrison St., CHICAGO, ILLINOIS

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Man-Power Potato and Orchard Sprayer. Sprays "anything"—potatoes or truck, 4 rows at a time. Also first-class tree sprayer. Vapor spray prevents blight, bugs, scab and rot from cutting your crop in half. High pressure from big wheel. Pushes easily. Spray arms adjust to any width or height of row. Cheap in price, light, strong and durable. GUARANTEED FOR FIVE FULL YEARS. Needn't send a cent to get it "on trial." You can get one free if you are first in your locality. Write today.

Horse-Power Potato and Orchard Sprayer. For big growers. Most powerful machine made. 60 to 100 gallon tank for one or two horses. Steel axle. One-piece-heavy-angle-iron frame, cypress wood tank with adjustable round iron hoops. Metal wheels. "Adjustable" spray arms and nozzles. Brass ball-valves, plunger, strainer, etc. Big pump gives vapor spray. Warranted for five years. Try this machine at our expense with "your money in your pocket." See free offer below. Write today.

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FREE—Get a sprayer FREE.—After you have tried the sprayer and are satisfied that it is just as we recommend it, send us a list of the names of your neighbors and we will write them and quote them price and have them call and see your machine work, and for every Fits-All Sprayer we sell from your list we will credit you with \$2.00 or send you check if you have paid cash. For every Man-Power Potato and Orchard Sprayer we sell we will credit you with \$3.50 or send check. For every Horse-Power Potato and Orchard Sprayer we sell we will credit you \$3.50 or send check. We do all corresponding and selling. All you need do is to show the sprayer. Many have paid for their sprayer in this way. This offer is good for only the first order in each locality. Don't delay. Send the coupon or post card NOW.

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Clip Your Horses and Cows with this Machine

Horses should be clipped in the spring. Clipped horses thrive on less feed, are healthier, look better and do better work. They dry off quickly, rest well and are not prone to have colds, etc., like unclipped animals. Clip the flanks and about the udders of your cows every three or four weeks. This makes it easy to clean the parts before milking and insures clean, uncontaminated milk. The easiest and quickest way ever devised for clipping horses and cows is with this

Stewart Ball Bearing Clipping Machine Anyone can operate it. It turns easier and clips faster than any other. The gears are all of cut steel made file hard. They are enclosed, protected and run in oil. It has six feet of high grade flexible shaft, and the celebrated Stewart single nut tension clipping head, highest grade. The price all complete, at your dealers, is only **\$9.75**. Get one from your dealer. Write today for new 1911 catalogue.

Chicago Flexible Shaft Company
110 LA SALLE AVE., CHICAGO

Made Up To Standard

Standard

Not Down To Price.

Is There Any Money in Dairying

I once heard a farmer say that if the cows paid their own way he had the manure pile for his profit. EASILY SATISFIED, WASN'T HE?

DON'T LAUGH, MAYBE YOU ARE STILL EASIER SATISFIED, AND DON'T KNOW THAT YOU HAVE EVEN THAT MUCH PROFIT.

Why plunge along in the dark? For all you know, instead of the DAIRY MAKING MONEY TO KEEP YOU, YOU ARE MAKING MONEY TO KEEP THE DAIRY.

Investigate

First look to the quality of milk your herd are giving. This is just as important as the quantity.

Then get a proper way of taking care of the milk. The matter that will decide whether your dairy is to be run at a PROFIT or at a LOSS is the getting of the cream from the milk. There is only one way that this can be done to advantage, and that is by the use of a GOOD CREAM SEPARATOR. Any cream separator is better than the old way, but to get the best results only the highest grade machine should be used.

"STANDARD" CREAM SEPARATORS PRODUCE MORE CREAM (butter-fat) FROM THE MILK THAN IS POSSIBLE WITH ANY OTHER SEPARATOR. A "STANDARD" will get enough extra cream over the pan or deep-setting system TO PAY FOR ITSELF IN LESS THAN ONE SEASON with a herd of six cows, and gets enough extra over the next best

skimming separator TO PAY FOR ITSELF IN TWO AND ONE-HALF YEARS. The above are FACTS which can be PROVEN by a TRIAL.

Write for our free Catalogue, which fully describes THE WORLD'S GREATEST SEPARATOR.

Address Desk 7 The Renfrew Machinery Co. Ltd., Renfrew, Ont.

TRADE TOPIC.

It is well known among stockmen that molasses is a valuable food for animals of all kinds. Great quantities of the cheaper grades are used for this purpose in Britain. Considerable labor, however, is required in preparing it for stock, as it has to be diluted with water, and the dilute liquid sprinkled on the food. The Caldwell Food Co., Ltd., Dundas, Ont., claim to have a product in Caldwell's Molasses Meal, which does away with this

labor of preparation, and is, besides, free from some other objections to the use of liquid molasses. This preparation is formed by incorporating, under pressure, 80 to 84 lbs. of pure cane molasses, and 16 to 20 lbs. of sphagnum moss. The moss is said to have a digestive and antiseptic effect on the intestines, and about the same feeding value as straw. This molasses meal is not intended for a stimulant, but is to be used in place of other foods. Send for circular.

QUESTIONS AND ANSWERS. Miscellaneous.

SUCKER PROBABLY TOO HIGH.

To obtain water for our school, the Trustees got a well sunk and put in a pump. After a time the pump would not work on account of sand getting around the sucker. There was little water used, and it became impure. The Trustees had it filled up, and put down what is called a drive well; that is a 2-inch pipe with a point, and soldered a hand-pump to it, but it will not bring the water. Can you, or any of your readers, give the reason? At the level of the sea an ordinary pump will not lift the water any higher than 32 feet. The sucker may exhaust the air out of the pipe, but no air can get on the surface of the water to force it up. Do you think if the pump was taken off, leaving the pipe open, and a small pipe was put inside, a sufficient amount of air would get down to the water to force it up?

W. H.

Ans.—From the information you have given, it is impossible to be certain as to the cause of the trouble. If you had mentioned the distance the sucker is from the water level, it would be of great assistance. Theoretically, the sucker must be within 30 feet of the surface of the water, when the pressure is 28 inches of mercury, and 32 feet when the barometer stands at 30 inches. But as pumps can not be made perfect, the sucker must be closer than this to the water to insure satisfactory results. In general practice, it is placed within 25 feet of the water. I judge the trouble with this pump is that the sucker is too high up. Letting the air in as suggested by you would be of no use, as the air is already pressing on the head of water that supplies the well. Measure the height of the sucker from the water, and if you find it less than 25 feet, write further details.

WM. H. DAY.

FERTILIZERS FOR HOE CROPS.

Would like your opinion on how to act to the best advantage in the growing of roots, corn and potatoes this coming season. Have 18 or 20 acres set apart for that purpose, and have not quite enough manure to go over all the ground.

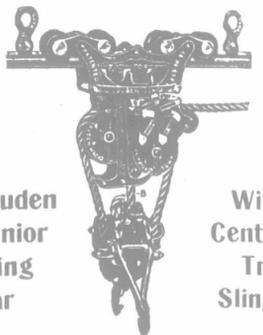
1. Would you advise the use of nitrate of soda on any of the above crops?
2. On which crop would it be most beneficial to use it, and in what quantities? I might say that part of my potato ground is an old sod on a hillside, from which I expect to get a good crop. The remainder of the land is stubble. Soil is clay loam throughout.

QUEBEC.

Ans.—The results of experiments conducted by Prof. Zavitz on the College Farm at Guelph, and under his direction by the Co-operative Experimental Union, go to show that, while it is not usually profitable to use commercial fertilizers on oats or other grain, yet they can often be profitably applied to potatoes, roots and corn. These experiments also show that a complete fertilizer—that is, one containing the three elements of nitrogen, potash and phosphoric acid—gives better and more profitable returns than when one or two only of these elements are applied. So far as money value of increased yield from the use of fertilizers is concerned, potatoes would probably be the most satisfactory crop of the three mentioned on which to apply fertilizers, with roots second, and corn third. A formula recommended for potatoes, without the addition of barnyard manure, is: Sulphate of potash, 180 lbs.; acid phosphate, 360 lbs.; and nitrate of soda, 140 lbs. Where ten tons of barnyard manure were applied, the quantities might be reduced to 150 lbs. sulphate of potash, 300 lbs. acid phosphate, and 100 lbs. nitrate of soda. A full dressing for turnips would be: Muriate of potash, 140 lbs.; acid phosphate, 500 lbs.; nitrate of soda, 140 lbs. For corn, where a scant measure of manure has been available, an application of muriate of potash, 60 lbs.; acid phosphate, 200 lbs.; and nitrate of soda, 60 lbs., would be beneficial. Nitrate of soda, on account of its extreme solubility, should not be applied until after the crop is above ground, and then in two or three dressings, at intervals of two weeks. The other ingredients should be mixed together, and sown on the ground as early as possible after it has been plowed, and before it has been worked fine.

If You Have 50 Loads of Hay

this summer, would it pay you to handle them in the old-fashioned way, when a



Louden Junior Sling Car

With Centre Trip Slings

would enable you to mow them away in one-third or less time? Think of the saving of time and labor. We make a full line of Hay Tools, Barn-door Hangers, Litter Carriers, Stalls, etc. Write for our catalogue.

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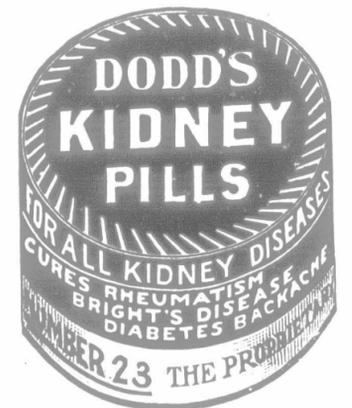
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RICE-KNIGHT, LTD., Toronto or Winnipeg

Little Willie—Say, pa, what's the difference between a public servant and any other kind?

Pa—The difference, my son, is that the public servant tries to hold his job longer than the other kind.



MARCH 16, 1911

QUESTIONS AND ANSWERS.
Miscellaneous.

A REPAIRING ACCOUNT.

Last spring I bought a windmill at an auction sale, it being on the barn at time of sale. I hired a man to take windmill down, and also to erect same. I paid him for his work when he had finished. He has now sent in an account for repairing roof where windmill was taken out. Who should pay him; the one from whom I bought the mill, or myself?

Ontario.

Ans.—Whichever employed him to do such repairing of roof.

KNEESPRUNG HORSE.

A driving horse nearly five years old is slightly kneesprung through being over-driven when young. Is there any treatment that would improve this condition, or keep it from getting worse? R. M.

Ans.—The application of blisters, liniments, etc., do no good. Keep him in a box stall with level floor. Remove the rack or manger, and feed hay on the floor and oats in a box set on the floor. This treatment sometimes helps the condition of the knees.

WHEN TO PLANT TREES—RESTORING HAIR ON SCAR.

1. I intend planting some trees this spring and next fall. What time in the spring should young oaks be planted, and also maples and pine?
2. What will make the hair grow on a scar, caused by severe blistering?

READER.

Ans.—1. Early in spring, just as growth is beginning, is the best time to plant all deciduous trees. Some will have it that June is the best time to transplant evergreens, but, while they will grow if planted at that time if all conditions are favorable, yet they are much more certain to succeed when planted in early spring.

2. If the hair follicles, or roots, have been destroyed, nothing can be done; but if these remain, benefit may be derived from monthly applications of tincture of cantharides in moderation. The action is that of a mild sweat blister.

FATTENING WORK HORSE.

1. Please let me know how to make working horse improve in flesh quickly; what kind of feed, and how to feed it?
2. How much brick is required for a kitchen 18 x 19; house, 23 x 24; and, otherwise, how much lumber would be required to build it if I did not brick it?

S. D. M.

Ans.—1. To increase the flesh of a working horse, feed well-cured clover or mixed hay, and for the grain ration, mix equal quantities of corn and oats together for the morning and noon feeds, giving as much as he seems to be able to assimilate, and for the evening feed give boiled oats, unless it proves too laxative, with some ground flaxseed sprinkled over them. A little molasses might also help.

2. As the height of the buildings is not given, no estimate of material can be made. Doubtless you can get the information from some mason or carpenter.

COST OF HENHOUSE—BEST CORN FOR HUSKING.

1. What is the cost of a henhouse 50x12 feet, 7 feet high at front and 8 feet at back, with slanting roof, timber at \$20 per thousand, and labor at \$2 per day?
2. What is the least cost for wall under same, counting nothing for drawing material, wall to be cement?
3. What is the best corn for husking?

J. S.

Ans.—1. Your first question cannot be answered without more definite information. You say nothing about what kind of roof is wanted, nor whether the walls are to be single or double-boarded, nor windows desired. Consult a carpenter.

2. How high is the wall to be above ground? Assuming, however, that the wall is one foot above ground and two feet in the ground, and six inches in thickness, such a wall, if made of cement and covered mixed one to eight, would require for construction about 6 1/2 barrels of cement.

3. A good strain of Longfellow is a very excellent corn for husking. So also is the White Cap Yellow Dent, small variety.

DAN PATCH EATS IT EVERY DAY

3 FEEDS FOR ONE CENT

MAILED FREE BEAUTIFUL SIX COLOR PICTURE OF DAN PATCH 1:55

AS LIFELIKE AS IF YOU SAW HIM ON THE TRACK HITCHED TO SULKY AND READY FOR A MILE IN 1:54

WRITE TO US FOR THIS PICTURE

INTERNATIONAL STOCK FOOD CO., LTD., Toronto, Can.

CASH CAPITAL \$2,000,000 LARGEST IN THE WORLD

PROVED ITS INVALUABLE WORTH.

SEE OUR DEALERS, or WRITE US with regard to our FREE TRIAL OFFER

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BRUCE'S BIG FOUR FIELD ROOT SPECIALTIES

BRUCE'S GIANT WHITE FEEDING BEET—The most valuable Field Root on the market, combines the rich qualities of the Sugar Beet with the long keeping, large size and heavy cropping qualities of the mangel. 1/4 lb. 13c., 1/2 lb. 19c., 1 lb. 30c., 4 lbs. \$1.10, postpaid.

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FARMERS! GARDENERS! YOU NEED THIS BOOK

IT TELLS ALL ABOUT THE SEEDS THAT BRING THE DOLLARS

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WANTED Cherry Logs

8 to 16 ft. long, 10 in. and up diameter, top end; straight, sound.

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For Sale: Beautifully marked and richly bred heifer calf, born 25th Feb., 1911; sire Mercena Mechthilde Prince, son of Tidy Abbecker Mercena's Posch; dam Jewell Mechthilde of Willowsbanks, whose sire is Johanna Rue 4th Lad. Will crate securely and ship to any station, price \$60, with registered pedigree.

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Registered Canadian-bred Clydesdales

Matched pair of mares, full sisters; one rising five years—in foal; one rising three years; sired by Corner Stone—3505—(1910). **Jos. Holman, Columbus, Ont.** Brooklin, G.T.R.; Myrtle, C.P.R.

Corn That Will Grow EARLY

Hand sorted. An early variety and large yielder of fodder and grain. Write for prices.

W. B. ROBERTS, SPARTA, ONT.

"What is the hardest work you do?"
"My hardest work," replied Senator Sorghum, "is trying to look like my photograph and talk like my speeches when I get back to my home town."

Do You Realize That **SHARPLES** Tubular Cream Separators Save You What Other Separators Lose?

That explains why farmers all over Canada—and all over the world—are discarding other machines for Tubulars. That explains why Tubulars are probably replacing more common separators than any one maker of such machines sells. That explains why the manufacture of Tubulars is one of Canada's leading industries. These facts will set you thinking.

You can't afford to use a common separator that loses cream which a Tubular would save. Cream is money to you. It is cheaper to throw away a common machine, if you have one, and put a Tubular in its place than it is to keep on losing cream.

Tubulars save what others lose because Tubulars are later than and different from all others. Tubulars produce twice the skimming force, skim faster, and twice as clean as others. That is why Dairy Tubulars neither need nor contain disks or other contraptions. The simplicity and efficiency of Tubulars prove them The World's Best. Tubulars wear a lifetime—are guaranteed forever by the oldest separator concern on this continent.

You can own and use a Tubular for less than any other make. Then how can you afford to waste time or risk anything on any "peddler's" or other inferior machine? Our local representative will be glad to show you a Tubular inside and out. If you don't know him, ask us his name. Write to us now for our complete catalog No. 193.

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Made of Hard, Stiff Wire, of Honest Quality

Heavy Fence Means Long Life

Put the fence you buy on the scales. Any American Fence dealer will be glad to do this for you because he is proud of the amount of steel he can give for the money.

American Fence is a heavy fence. The gauge of the wire is larger. Compare with any other fence. The eye is easily deceived on the size of the wire, so put the roll on the scales and weigh it. This test will convince you that the fence you thought was cheap is most expensive when pounds of steel are considered. Weight in fence means strength and durability, and our years of experience have taught us that the heavier the fence the better. No argument for light fences can dispute this.

American Fence is made of hard, stiff steel. It is made of a quality of wire drawn expressly for woven-wire-fence purposes by the largest manufacturers of wire in the world. Galvanized by latest improved processes, the best that the skill and experience of years has taught. Built on the elastic hinged-joint (patented) principle, which effectually protects the stay or upright wires from breaking under hard usage.

The Canadian Steel & Wire Co., Limited
HAMILTON, ONT. WINNIPEG, MAN.

NOTE.—Dealers everywhere. See the one in your town and have him show you the different designs and give prices. Also get from him booklet entitled "HOW TO BUILD A CHEAP CONCRETE FENCE POST," furnished free for the asking.

WHEN WRITING ADVERTISERS MENTION THE FARMER'S ADVOCATE.

QUESTIONS AND ANSWERS. Miscellaneous.

WARTS.

A heifer has large, flat warts, as large as an egg, around udder. How can I remove them?

A SUBSCRIBER.

Ans.—Try rubbing with castor oil every day. If that does not remove the warts, dress them once daily with butter of antimony, applied carefully with a feather. This will effect a cure in time.

EMMER VS. SPELT.

1. Is emmer or spelt a profitable crop to grow? Which of the two is the best?
2. Are they good to seed clover with? We have a very good piece of sandy loam, but rather impoverished, we wish to get into clover, but with oats it is a sure failure. Have heard that spelt would do well on poor soil, and make a fine nurse crop for clover.

S. A. O.

Ans.—1. Emmer and spelt resemble each other, but emmer is much the better yielder. Both are really types of wheat in which the chaff cannot be removed from the grain. Emmer is grown largely in Switzerland, on comparatively poor soil, where other spring grains do not do well.
2. Either one would be a good nurse crop for clover. Spelt has yielded but poorly on the experimental plots at Guelph, while emmer equals the best varieties of oats or barley in weight of grain.

GREASE—OPHTHALMIA.

1. Horse five years old has a swollen leg, principally around fetlock joint. Skin is rough and scabby, and, when scab is broken, seems to be moist, and hair comes out easily. Has been fed clover hay, raw oats in morning, scalded chop at noon, and boiled oats at night, one gallon each time.

2. Same horse had sore eyes last spring; one of the eyes is somewhat smoky, and I think sight is affected. What could be done for this trouble?

H. C.

Ans.—This is evidently grease, an ailment that is not easily cured, and requires persistent attention. Treatment consists in first giving a purgative ball made up of 8 drams aloes and 2 drams ginger, feeding bran mashes until purged. Follow up with 1½ ounces Fowler's Solution of Arsenic twice daily for a week. Apply warm poultices of linseed meal, with a little powdered charcoal every six or seven hours for a couple of days and nights, and then apply, three times daily, a lotion of lead and sulphate of zinc, and 2 drams carbolic acid to a pint of water. Feed lightly, and give regular, but gentle, exercise.

2. Bathe the eyes well and often with warm water three times a day, and after bathing put a few drops of the following lotion into each eye, viz.: Sulphate of zinc 10 grains, fluid extract of belladonna 20 drops, distilled water 2 ounces.

METHOD OF FEEDING STEERS —EARLY MASTODON FOR SILO —CAROLINA POPLAR.

1. Have a man feeding cattle for me. Steers weighing about 1,000 to 1,200 lbs. He is feeding about a bushel of chaff and 30 lbs. of silage at noon, and a large forkful of good clover hay night and morning. Steers leave about half their hay in their stalls. I have been telling him to divide their noon feed, and give it to them night and morning, but he says that he has had a lot of experience, and that he is feeding properly. Is he feeding them right?

2. Do you recommend Early Mastodon corn for the silo in Kent County, Ont.?

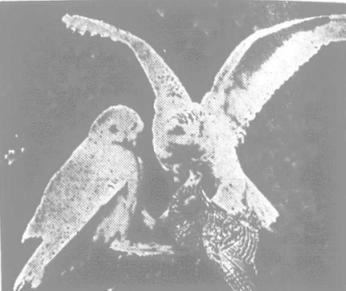
3. Is the Carolina poplar a good tree to plant for windbreaks?

J. S.

Ans.—1. Your man is feeding a great deal too much at one time in the noon feed. If it is desirable to give so much chaff and silage in one day, it would be much better as you suggest, to divide into two feeds, and give night and morning. Hay could be given at noon. If hay is of good quality, no man who knows his business will give so much as to have any worth mentioning left uneaten.

2. Early Mastodon corn should be a good variety for the silo in Kent County, Ont.

3. The Carolina poplar is a tree of very rapid growth, and of a peculiar upright habit of growth. Prof. Hutt thinks little of it, as it gives a cheap appearance, and, while handsome when young, soon becomes unsightly.



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GOSSIP.

Young Aberdeen-Angus bulls, of serviceable age, also cows and heifers of the same popular breed, are advertised for sale by James Sharp, Rockside, Ont., Cheltenham Station, C. P. R.

A BIG SELECTION OF SHORTHORNS.

Robert Nichol, of Hagersville, Ont., G. T. R. and M. C. R., is one of the most extensive breeders of Shorthorn cattle in Western Ontario, as well as quite an extensive breeder of Clydesdale horses. The herd of Shorthorns number 64 head, among them being cows that year after year are good for 60 lbs. of milk a day; this, with a 4-per-cent. butter-fat test, would be equivalent to about 24 lbs. of butter in seven days. The foundation of the herd, established many years ago, traced to Beauty (imp.), by Snowball =2647=, and Imp. Roan Duchess. On these were used Earl of Howard =29986=, a Mina, and The Patriot (imp.), a son of Imp. Patience 31st (the majority of the younger females were the get of this bull), and Prince Misty =65949=, a Roan Duchess-bred son of Imp. Prince William. All the yearlings and young bulls were got by this bull, thus giving them a double-cross of Shorthorn dairy blood. The present stock bull is Duke of Clarence 10th =80096=, a Melody-bred son of Stamp's Guardian. It is unnecessary to say, that in a herd of this size many choice things can be singled out, low, and deep-fleshed in type, and intensely bred on milk-producing lines. For sale are females of all ages, and about a dozen young bulls from six to fifteen months of age, one of them out of Fortuna 13th, that is good for 60 lbs. of milk a day on ordinary feed at every freshening. Many of these young bulls are exceptionally well-fleshed, and good on their lines. They are not held at extortionate prices, and their breeding is the kind that is in great demand.

THE HILLVIEW AYRSHIRE SALE.

The catalogue of the Hillview herd of high-class registered Ayrshire cattle, property of A. Kennedy & Son, of Vernon, Carleton Co., Ont. (Winchester Station, C. P. R.), to be dispersed by auction, on Wednesday, March 22nd, shows that the cattle are bred on heavy milk-producing lines, first-class sires, imported or descended directly from imported stock, having been used. The bull now at head of the herd, Glenhurst Mains -29903-, coming two years old next month, included in the sale, is a strong, large animal for his age, a son of imported Droghan Mains, sold for \$400 last spring, and out of Ada 2nd of Glenhurst, the best producing cow in the Benning herd, which made such a splendid average when the herd was dispersed last year. Among the cows in this sale is Flora of Hillview, in her five-year-old form, with a record of 65 lbs. milk in one day, and a prizewinner at the Ottawa and other shows. She is due to calve this month to the stock bull. Queen of Hillview, five years old, by a son of the renowned Napoleon of St. Annes, and out of Flossy, by Victor of Maple Cliff, is one of the showiest cows in the herd, large, smooth, and with a well-balanced udder and good-sized teats, well placed. Violet of Hillview, eight years old, is a large cow, with large teats, a heavy milker, sired by White Prince, dam Mary of Park Hill, by Promotion (imp.). She is half-sister to Maud of Hillview, that won first place at the Ottawa Dairy Show in 1906. Lassie of Hillview, a four-year-old full sister to Maud, above mentioned, which gave over 9,000 lbs. of milk in nine months, is an ideal dairy cow in every respect, and has a well-shaped udder and good teats. Polly of Hillview, by the noted Corade's Heir of Glenora, by Comrade of Garlaff (imp.), is a very strong, large four-year-old cow, that gives promise of being a heavy milker. Her dam was a Dairy Show winner at Ottawa and Guelph shows, giving 65 lbs. a day. These are representative of the cows in the sale, while a fine lot of two-year-old and yearling heifer calves, daughters of these and others in the herd, of like character, make up a very desirable offering, which should attract breeders and dairymen in these prosperous times for this class of stock.

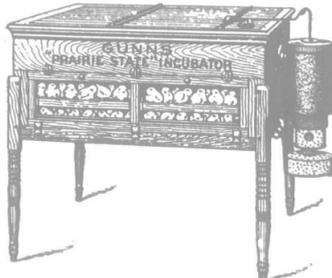
It's Easy To Get Good Results With GUNNS PRAIRIE STATE INCUBATOR

The novice at poultry raising finds no trouble in getting big hatches of strong, healthy chicks with the "Prairie State" Incubator.

The expert uses the "Prairie State" because he has proved it the best.

Honestly made, of first-class materials—durable—economical of oil—easy to look after—The "Prairie State" supplies so perfectly the natural conditions of heat, moisture and fresh air, that it gets more big, vigorous chicks than any other incubator.

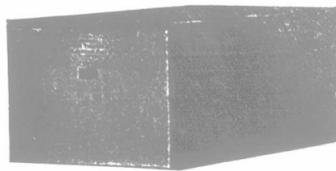
Our Catalogue explains fully why, and gives a lot of practical information about breeding, hatching and rearing poultry for profit. Write for it now—it's free.



- GUNNS**
Prairie State Incubator
 No. 0.—100 hen eggs—\$18.00
 No. 1.—150 " " — 22.50
 No. 2.—240 " " — 32.00
 No. 3.—390 " " — 38.00

GUNNS Universal Hover
With lamp, lamp case and smoke conductor \$7.00

GUNN, LANGLOIS & CO., LIMITED, 235 ST. PAUL STREET, MONTREAL.
"Gunns Prairie State Incubator Gets Chix." 14



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 trough to order. Steel tanks do not rust. They are built to last.

AGENTS WANTED. Write for particulars to STEEL TANKS & TROUGH CO. TWEED, ONT.

Dr. Stewart's Pure Condition Powders

For horses, cattle, hogs and poultry—not 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, distemper 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.

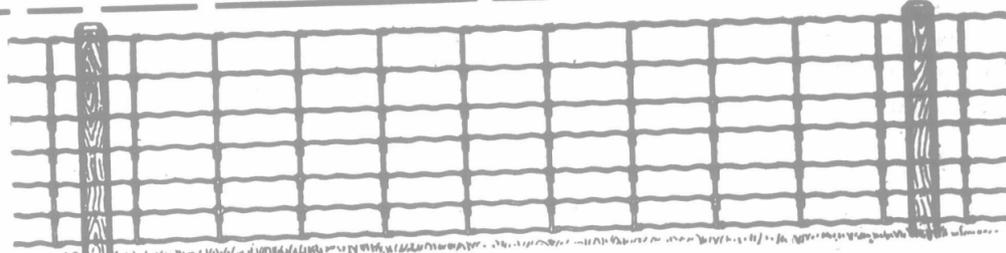
RINGING IN EARS DEAFNESS
INSTANTLY RELIEVED BY THE OLD DR. MARSHALL'S CATARRH SNUFF
25¢ AT ALL DRUG STORES OR SENT FREE PAID BY CH. KEITH, 117 E. LEVELAND ST.

RECIPROCITY

You do not need reciprocity if you buy your drills direct from us, without selling expense. We manufacture the IMPERIAL HORSE-LIFT DRILL. Let us tell you why this drill is the best drill on the market to-day.

THE W. I. KEMP COMPANY, LIMITED
Stratford, Ontario.

By Its Neat Appearance you know it is Frost Fence



The Stays are all straight and accurately spaced. Horizontal Wires are absolutely even in length and tension. The strain on usual wear and tear is equally distributed over all the wires instead of falling on tight wires as in the case of fence where laterals are not evenly measured and of same length.

The Tie or Binding as shown in the picture is different from any other. Double the inches of material is used and several wraps are made around the stay and horizontal wire, resulting in a most secure binding. This type of Knot does away with a short kink in

the horizontal which soon develops into broken laterals.

Special provision is made in Frost Fence for "give and take" showing the customer that it will not grow slack or baggy. It always holds to that tidy appearance throughout all seasons and under all conditions.

We Make Our Own Wire

The big point about Frost Fence is that it is woven from wire specially made and galvanized by us in our own plant here and exclusively for our own fence trade. We make this wire up to full size, true to the gauge represented. To make prices attractive smaller wire than advertised is used in some fences. A difference of one-half a size smaller means a saving in material to the maker of about 8c. a rod on a ten wire fence. Insist upon getting

fence that is not robbed of 8 per cent. of its weight through the use smaller wires.

There are now 49 distinct styles of Frost Woven Fence to suit any condition or for any purpose.

Other Frost Specialties

Galvanized Gates, fancy and plain; Colored Wire, each bundle guaranteed; Barb Wire; Soft Wire; Hay Wire; Stays and Galvanized Locks for field fence; Hooks for wood picket fence; Iron Posts for farm fence; Tube Posts with top ornament and rails for Lawn Fence; Fancy Fence material; Maple Leaf designs; Fancy Woven Fence; Wire straightened and cut to length for re-inforcing in concrete posts. Your Fence, Gate and Wire needs can all be supplied to your best satisfaction and by some reliable Frost dealer near you. If he is not known, write us.

Frost Wire Fence Co., Ltd.
82 Hamilton, Canada

"Frost" Fence

The EMPIRE Line

"Everything that's good in Cream Separators"
Empire Cream Separator Co. of Canada, Ltd.
WINNIPEG TORONTO SUSSEX, N.B.

You have your choice of both CONE and DISC styles. Send for our dairy book. It will interest you. 10



LARGE CLEARING AUCTION SALE

Clydesdale Horses, Shorthorn Cattle, Oxford and Shropshire Sheep

And other farm stock, property of John and Wesley Wise, at the farm, one mile west of Traction Station 84, two miles south of St. Thomas, Ont., on

TUESDAY, MARCH 21ST.

26 HEAD of registered Shorthorns; deep-milking strain; 23 females and 3 bulls. Also 20 head of high-grade cows, heifers and steers. Three Clydesdale mares and 6 colts, ranging 1 to 3 years old. Also a number of Oxford and Shropshire sheep. Sale to commence at 1 p. m. For terms and catalogue address:

LOCKE & McLAUGHLIN,
Auctioneers,
St. Thomas, Ontario.

JOHN & WESLEY WISE, Props.,
R. R. 4, St. Thomas, Ontario.

DISPERSION SALE

PURE-BRED

40 Shorthorn Cattle 40

ALSO

HEAVY HORSES

Registered Shropshire Sheep and Yorkshire Swine

Property of DONALD FERGUSON, Glanworth P.O. and Sta. (Pere Marquette R. R.), will be held on the farm; 2 miles from Glanworth

Tuesday, March 28th, 1911

COMPRISING: 14 COWS, 16 HEIFERS, 10 BULLS.

1 Imp. Clydesdale Stallion.	12 Shropshire Ewes.	5 Pure-bred Yorkshire Sows,
6 Heavy Mares.	5 Shearling Ewes.	with litters, or due to farrow at
Also Colts and Fillies.	12 Shearling Rams.	an early date.

Trains arrive at Glanworth as follows: From north, 10.11 a. m.; from south, 8.27 a. m. and 1.23 p. m. Sale commences 1 o'clock. Terms: Six months' credit on approved joint notes, or a discount of 6 per cent. per annum for cash. Catalogues on application to:

DONALD FERGUSON, GLANWORTH, ONTARIO



AUCTION SALE 40 HIGH-CLASS

Registered Ayrshires

WEDNESDAY, MARCH 22, 1911, AT 1.30 P. M.

AT HILLVIEW FARM, VERNON, ONT., WINCHESTER STATION, C. P. R.

Conveyance will meet morning trains. To be sold, without reserve, the entire herd, consisting of 20 females either in milk or in calf, 10 heifers from 1 to 2 years old, 10 calves (bulls and heifers), herd bull—Glenhurst Mains, 2 years old. Terms: 8 months' credit on bankable paper, or 4% off for cash.

THOS. IRVING, Auctioneer. **A. KENNEDY & SON, VERNON, ONT.**

IMPORTANT AUCTION SALE

Wednesday, March 29th, 1911

Scotch-bred Shorthorn Cattle

Consisting of a number of the famous Buckingham strain, one of the best milking tribes on the American continent to-day. The offering consists of twenty cows and heifers, mostly young; all of breeding age; are in calf or calf at foot. Also two bulls, one yearling and the stock bull, both of the best quality and breeding. The sale will be held on lot 7, 10th concession of Blandford, Oxford Co., two miles from Bright, G. T. R. station, and four miles from Inverkip Station, C. P. R. Teams will meet trains on morning of sale. Sale commences at 2 o'clock. Terms: 6 months' credit on bankable notes.

Capt. T. E. Robson, London, Auctioneer. **Wm. Hamilton, Bright, Ont., Prop.**

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, Please Mention "The Farmer's Advocate."

GOSSIP.

THE LONDON SHIRE SHOW.

At the Annual Spring Shire Horse Show, held in London, England, the third week in February, the total number of entries was 641. In a large class of two-year-old stallions, Sir W. Greenwell was first, with Marden Forest King, a son of Lockinge Forest King. Second was Lord Middleton's Birdsall Forest King. In a heavy class of 125 3-year-olds, Lord Rothschild's Babingly Nulli Secundus was first, and E. & J. Winnerah's Warton Draughtsman second. The Duke of Westminster was third, with Eaton Nonsuch. Four-year-old stallions were led by last year's junior champion, Sir Berkeley Sheffield's Slipton King, which held the same place last year. H. & R. Ainscough were second, with Tatton Harold. Lord Rothschild's Kingscraft II. was third. In the class for stallions over four years old, and under ten, His Majesty the King was first, with Hoe Forest King, by Lockinge Forest King. In the class for big horses of the same age, over 16.2 hands, Mr. Grandage's champion of last year, Conqueror, by Montford Jupiter, dam by Blaisdon Conqueror, was easily first, and was also supreme champion as best stallion, any age. The cup for the best stallion, not over three years, went to Nulli Secundus, the leading three-year-old, and he was reserve champion. The junior champion mare was Dunsmore Chessie, shown by Sir W. Greenwell, and the grand champion mare was Pailton Sorais, M. Michael's first-prize winner in the class for mares over 16½ hands, a seven-year-old daughter of Lockinge Forest King.

TRADE TOPICS.

Evidence accumulates that this is the iron, or, rather, the steel age. Everyone who has had to work outside all day when it is sloppy or snowy underfoot, realizes how disagreeable it is to have damp come through the boot soles, and also how many colds are caught from damp feet. An absolutely waterproof sole is now made of steel. The makers claim that these steel shoes are not as heavy as they sound; that, in fact, they are lighter than ordinary thick-soled shoes. If you have not seen steel shoes, write a postal for the booklet, "The Sole of Steel." Address, The Steel Shoe Co., 7th street, Racine, Wisconsin.

A new abrasive material, which, it is claimed, has displaced the emery wheel in all large manufacturing plants, is called electrude. The inventor of this substance was trying to produce precious stones by subjecting the substances which go to make up sapphire and ruby in electrical furnaces. The resulting product was not gems, but what is declared to be more valuable—a substance next to the diamond in hardness. This material is now used by the Harman Supply Co., 610-612 Yonge street, Toronto, in the Harman Grinder, for farm use. A limited number of these implements are to be sent out on free trial.

SMALL FLOUR MILLS.—Since the introduction of the roller process for grinding wheat, the many little mills throughout the country making stone flour have been gradually squeezed out of existence. Milling is now done almost entirely in large establishments, and the click-clack of the little country mill is heard no more. The Canadian Fairbanks Company, whose specialties have been Standard Scales and Gasoline Engines, are making an attempt to start up the small flour mill again. They manufacture what they call the Midget mill, which requires about three horse-power, and which occupies a floor space of 8 feet by 4 feet. It is a real roller mill, being equipped with two pairs of fluted break rollers and two pairs of smooth reduction rollers. The manufacturers claim that it makes first-class flour, better in color and sweetness than that made on elaborate plants. Sold in Canada by the Canadian Fairbanks Company, 444 St. James street, Montreal.

Diner—Walter, kindly remove this egg.
Waiter—What shall I do with it, sir?
Diner—I think you'd better wring its neck.

A WIFE'S MESSAGE

Cured Her Husband of Drinking.

Write Her Today and She Will Gladly Tell You How She Did It.

For over 20 years her husband was a hard drinker. He had tried in every way to stop but could not do so. At last she cured him by a simple home remedy which anyone can give even secretly. She wants everyone who has Drunkenness in their home to know of this, and if they are sincere in their desire to cure this disease and will write to her she will tell them just what the remedy is. She is sincere in this offer. She has sent this valuable information to thousands and will gladly send it to you if you will but write her today. As she has nothing to sell, do not send her any money. Simply write your name and full address plainly in the coupon below and send it to her.



MRS. MARGARET ANDERSON,
104 Home Avenue, Hillburn, N. Y.
Please tell me about the remedy you used to cure your husband, as I am personally interested in one who drinks.
Name.....
Address.....

Struck by LIGHTNING

Not Your Home—but Is Yours Protected?

Why don't you do something to protect your home? Thousands and thousands of homes are made safe by

THE DODD SYSTEM of Lightning Protection



West Dodd, Originator of the Dodd System. Not one ever destroyed or injured. And yet lightning causes three-fourths of all the country fires. The Dodd System comes nearest to absolute safety of any in the world. Insurance companies say so. Over 2000 Mutual Companies have passed resolutions endorsing it. Old Line Companies are giving 20 per cent reduction in rates on buildings protected with D-S. Lightning Rods. Be sure you get THE DODD SYSTEM, the real system—includes scientific installation as well as the standard rod at the standard price. Look for the D-S. Trade Mark. Write for great lightning book, FREE, to **Dodd & Struthers** 465 6th Ave., Des Moines, Iowa.



MR. FARMER!

We want to get in touch with good, live, hustling barn-carpenters to act as agents for our

"GALT" Galvanized Steel Shingle

The shingle that is building up trade on its merits. We manufacture a reliable line of goods, and we want an agent who has your confidence, and the confidence of your neighborhood, a man with whom you would be willing to do business.

Will you recommend or bring this to the notice of such a man, and have him fill out the coupon below:

Name.....
P. O.
Occupation

and send to
The Galt Art Metal Co., Ltd., Galt, Ont.

MARCH 16, 1911

DRUGGIST PRAISES D. D. D.

"Your D. D. D. Prescription is the best thing we have ever handled, and is giving good satisfaction with our customers."—Spur Stevenson Drug Co., Birtle, Man.

"I have had Eczema on and off for about three years, and nothing I tried has done so much good as D. D. D. It will stop that irritation in a few minutes. I can do my washing, and if I have D. D. D. on hand, it will ease it at once," writes Mrs. A. J. Squires, Coleman, Ont.

These are just samples of letters we are receiving every day from grateful patients all over the country.

"Worth its weight in gold." "All my pimples washed away by D. D. D." "I found instant relief." "D. D. D. is little short of miraculous." These are the words of others in describing the great skin remedy, D. D. D.

Proven by thousands of cures, for ten years, to be absolutely harmless and reliable in every case of skin trouble, no matter what it is.

Write to-day for free trial bottle to the D. D. D. Laboratories, Dept. A., 49 Colborne street, Toronto.

(For sale by all Druggists.)

EWING'S Reliable Seeds

Every seed you sow tries to reproduce its ancestors, in size, shape and flavor. But examine the seed as closely as you will, you cannot tell whether these parent plants were good or bad. You have to trust your seedsmen for it.

You'll never go astray if you trust Ewing's Seeds. They

Stand On Ewing's Record

For over forty years we have been selling Field, Flower and Garden Seeds here in Canada, so people have had plenty of chance to prove Ewing's "Reliable" Seeds.

The result is that last year we sold far more than ever before. Could you ask for a better proof of quality?

Don't take chances! Get the seeds you know will turn out right—Ewing's Reliable. Send now for our Illustrated Catalogue, and if your dealer hasn't Ewing's order direct from us.

WM. EWING & CO., Seedsmen MCGILL STREET, MONTREAL.

Father—Willie, this hurts me more than it does you.

Update Child—Corporal punishment is surely sufficient indignity; kindly spare the child to my intelligence.

d., Galt, Ont.

QUESTIONS AND ANSWERS. Miscellaneous.

PIGS DYING.

Sow has ten pigs which seemed weak, and are dying off one after the other. Sow has been wintered on turnips and mangels. Would the feeding of these roots cause the above? E. T. M.

Ans.—From such meagre information, it is impossible to diagnose positively, but it may be stated with assurance that your sows were not well fed during the winter. Roots are suitable as part, but not all of a sow's rations.

RETENTION OF PLACENTA.

Two cows have trouble in cleaning after-birth, and seem to have no appetite. They are both good cows, and never were like this before. J. K.

Ans.—It is a practice with some to give cows, for a few days before calving, a pound of oil cake, night and morning. Many stock-owners place dependence on this as an aid to easy parturition and natural removal of the afterbirth. Some claim that flaxseed is better, and it looks reasonable, though we have never tried it for this purpose ourselves. Only a limited quantity should be fed to cattle not used to it. The experience of readers on this point is requested.

LAND PLASTER FOR ALFALFA.

1. I have six acres of alfalfa on light, gravelly soil. Would it be advisable to sow land plaster on it in the spring?
2. Is plaster used as much now as it was some years ago? A. L. McK.

Ans.—1. We are not in a position to advise this, except as an experiment. It might prove beneficial, and we should like to see it tried. If you do so, kindly report results, whether negative or positive.

2. We believe not, though as a stable absorbent it might conceivably prove very profitable. For some reason, land plaster has been known to produce remarkable results with clover, when applied on virgin soils. Subsequently, the effect of repeated applications seems greatly diminished.

MOTOR CYCLE DEALERS—COLT DOES NOT THRIVE.

1. Would you please publish the addresses of the different motor cycle companies, as I am in need of a vehicle to get over the road?

2. Have a suckling colt that does not thrive well, and is in very poor condition ever since being weaned. I had him running with a sick beast after he was weaned that was bothered with old age. Would he get the same disease from the older beast? J. S.

Ans.—1. For obvious reasons of business policy, we are unable to publish business addresses of firms in our editorial columns.

2. If the old horse has an infectious disease, the colt might get the same trouble, but such is not likely to be the case. It will, of course, contract old age in time. Try feeding the colt a little bran and oats mixed, in addition to hay, if you are not already doing so.

DISK VS. SPRING-TOOTH CULTIVATOR—WHEN PLOW SOD FOR CORN.

1. For general tillage, which is the more valuable implement, the disk harrow or the spring-tooth cultivator?

2. Should sod, which is being manured this winter in preparation for corn, be plowed early in spring, or left until a couple of weeks before time to plant corn? What depth should it be plowed? Give general tillage to follow before planting. W. S. McI.

Ans.—1. That question can scarcely be answered. The disk is much the better for sod, and for finely pulverizing other land, but for spring cultivation in preparation for spring grain on land other than that plowed out of sod, the spring-tooth is not only better, but a great deal more speedy.

2. The plowing of sod manured for corn had better be deferred until a short time before planting. The rank growth of grass which will have sprung up will act as green manure, and have a good mechanical action on the soil. Agriculturist Gridale, of Ottawa, advises plowing not more than four inches deep. We confess that we would go an inch or two deeper. Tillage before planting should be thorough. Use disk or cultivator, harrow and roller until surface is fine and vacant spaces in under layer are filled.

PEDLAR Nestable Corrugated Galvanized CULVERT

Is The Strongest, Most Practical, Durable and Easiest Laid Culvert Made

YOU ought to show this advertisement to your township reeve or warden. Get him to write for the free book about Pedlar Culverts, or write for it yourself and tell him about this new Culvert—the quickest, most economical, strongest for any use any culvert can serve.

See How It Saves Farmers' Money, Better Roads, Lowers Taxes



This picture is from a photo of a wash-out fourteen feet deep in the Township of Darlington, caused by use of cement tile for drainage purposes. The township authorities have replaced that with Pedlar Perfect Culvert, forty feet in length by three feet in diameter; strongest, easiest laid and most durable they could get.



This picture of the Pedlar Perfect Culvert assembled and ready to lower into place, shows the immense strength and rigidity of these Culverts. Though forty feet long with a bearing of only a few feet at the centre it does not give one-sixteenth of an inch. See how easily Pedlar Culvert can be lowered into place. No skill needed.



Here you see the Pedlar Culvert doing its work of drainage twenty-five minutes after being put in place. It would have taken three times as long and cost three times as much to have installed any other type of culvert. Yet this Pedlar Culvert will last far longer and give no further trouble of any kind.



This view shows the Pedlar Culvert after the fill-in was completed. The Culvert has to carry a dead weight of several hundred tons of earth, as well as the live weight of traffic passing overhead. But that can't strain Pedlar Culvert, which will neither give nor spring. It stands what no other culvert can.

Write For My FREE Book No. 20 and Sample

And get a correct idea of what makes a good Culvert. Learn how Pedlar Culvert can be used on your farm.

The PEDLAR PEOPLE of Oshawa

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|----------------------------|--------------------------|--------------------|-----------------|
| 411 Address nearest place. | | | |
| HALIFAX | ST. JOHN, N.B. | MONTREAL | LONDON |
| 16 Prince St. | 42-46 Prince William St. | 321-3 Craig St. W. | 86 King St. |
| OTTAWA | TORONTO | CHATHAM | QUEBEC |
| 423 Sumner St. | 111-113 Bay St. | 200 King St. W. | 127 Rue de Pont |
| REGINA | WINNIPEG | PORT ARTHUR | |
| 1901 Railway St. S. | 76 Lombard St. | 45 Cumberland St. | |
| CALGARY | VICTORIA | VANCOUVER | |
| 1112 First St. W. | 434 Kingston St. | 821 Powell St. | |



A HARROW BARGAIN That Will Pay You to Know More About

TOLTON'S

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.

TOLTON BROS., LIMITED, GUELPH, ONTARIO



Heart Trouble

Caused Dizziness, Weakness and Smothering Spells.

Through one cause or another a large majority of the people are troubled, more or less, with some form of heart trouble. Wherever there are sickly people with weak hearts, Milburn's Heart and Nerve Pills will be found to be the most effective medicine on the market.

Mrs. F. Leslie Craig, 114 Erie Ave., Brantford, Ont., writes:—"It is with the greatest of pleasure I write you stating the benefit I have received by using Milburn's Heart and Nerve Pills. I suffered greatly from heart trouble which caused dizziness, weakness and smothering spells. I used a great deal of Dr.'s medicine but received no benefit. A friend advised me to buy a box of your pills, which I did, and before I had finished one box I felt so much better I continued their use by taking two boxes. I highly recommend these pills to any one suffering from heart and nerve trouble."

Milburn's Heart and Nerve Pills are 50 cents per box, or 3 for \$1.25, at all dealers, or mailed direct by The T. Milburn Co., Limited, Toronto, Ont.

Don't Wear A Truss

After Thirty Years' Experience I have Produced An Appliance for Men, Women or Children That Cures Rupture.

I Send It On Trial.

If you have tried most everything else, come to me. Where others fail is where I have my greatest success. Send attached coupon to-day



The above is C. E. Brooks, of Marshall, Mich. who has been curing Rupture for over 30 years. If ruptured write him to-day.

and I will send you free my illustrated book on Rupture and its cure, showing my Appliance and giving you prices and names of many people who have tried it and were cured. It is instant relief when all others fail. Remember I use no salves, no harness, no lies. I send on trial to prove what I say is true. You are the judge, and once having seen my illustrated book and read it you will be as enthusiastic as my hundreds of patients whose letters you can also read. Fill out free coupon below and mail to-day. It's well worth your time, whether you try my Appliance or not.

FREE INFORMATION COUPON.

C. E. Brooks, 4770 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

Address

City State

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 1,900 to 2,300 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, Crawfordville, Ind. Office 109 1/2 South Washington St.

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.

FOR SALE: **6 Imp. Clydesdale Stallions** whose breeding is unexcelled; up to a ton in weight. They will be priced right.

Jno. J. Miller, Surrandale, Gowrie, Ont.

QUESTIONS AND ANSWERS. Miscellaneous.

INOCULATING ALFALFA SEED.

To whom should I write at the O. A. C. for information about inoculating alfalfa seed, or could you give that information through your paper? T. G.

Ans.—Apply Prof. S. F. Edwards, Bacteriologist, O. A. C., Guelph, Ont. Instructions will come with material.

NEGLIGENCE CAUSING INJURY

I hired myself to a farmer, and everything went well until we went to haul in wheat. Before we put the load up, I said to my boss "The rack-lifter isn't safe," but he only laughed. Well, the load was being pulled up, and I was to watch when the load was up to give the signal to stop. Then I had to look to see if the props were in. Just at that, the rack came down and hit me on the shoulder. Then I was laid up for two months. Can I charge the farmer for lost time and doctor's bill?

Ontario.

Ans.—We think you are in a position to sue your employer for damages for negligence, and that in arriving at the amount of such damages, the items you mention should be included.

PROPAGATING BUSH FRUITS AND GRAPEVINES.

How are red currants, black currants, gooseberries and grapes propagated?

SAM.

Ans.—Propagation of all the fruits mentioned is by means of cuttings; that is, by sections of new wood about a foot in length, completely severed from the bush or vine. These may be taken off now, and two-thirds of their lower ends buried in the ground until early spring, when they can be planted out either in nursery rows, or where they are to remain. In order to have plants of the gooseberry and currant which shall not throw up suckers, it is only necessary to cut out every eye or bud to be placed below the surface of the ground. Cuttings of these will succeed almost as well if taken off in spring, but this must be done very early on account of the season at which growth starts.

Grapevines are sometimes propagated by layering. This consists in bending down and covering with earth a part of length of young wood, leaving basal end attached to stem, and outward end uncovered. It will root readily at any buried joint. When wanted, the connection with main vine is severed, and the rooted plant dug up.

SETTING DRILL TO SOW MIXED GRAIN—JOINING LATERALS TO MAIN TILE DRAINS.

1. In sowing Mandscheuri barley and Daubeny oats at O. A. C., rates of one bushel each, how would you set a Massey-Harris drill to sow the above? Said drill is made to sow barley on one side of feed run, and oats by reversing plates. Also, in sowing rape with turnip seed-drill, so many pounds per acre are recommended to be sown. Would like to know how it is done?

2. In joining tile drains, laterals into main drains, how is the connection made? Are there any tools made to do the job with, or in what way should a hole be made? May be in the center of a tile; or, if coming in the joints between two tile. Also, what is used to cover around or over the splices; pieces of tile, or stones? Experience of others would be welcome.

R. A. P.

Ans.—1. This is one of the questions that you can answer much better than can be answered from this office. Experiment with drill, or ask the agent. Possibly some readers have had the necessary experience. If so, we shall be pleased to hear from them.

2. At many tile yards, tiles with a hole cut in the side, or those with a short branch tile attached, are made. If no special tiles for the purpose of joining laterals to mains are on hand, a hole can be cut with a trowel or chisel. Two conditions should obtain at such joints:—laterals should be joined, not at right angles to main, but on an angle heading towards outlet, and the upper side—not the lower—of smaller lateral tile should be to the outside of main tile; in other words, the bottom of lateral tile should be as much as two higher than the bottom of main tile.

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Save \$30



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SEVENTEENTH YEAR OF SELLING DIRECT TO THE USER.

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To Buyers Looking for a Good Stallion:



I have imported Percheron Stallions for years. Always bought from the best breeders in France, and beg to call the attention of prospective buyers to the fact that I have won this year at Toronto first and second aged class sweepstakes and silver medal. Also at Ottawa Fair, first and third in aged class, first, second and third in 3-year-old class, sweepstakes and gold medal. Those horses are beautiful dapple-greys and blacks, three to four years old, weighing 1,800 to 2,000 lbs., with feet and legs that cannot be beat, beautiful heads and necks, the kind that good buyers are looking for. I do not intend, and I will not allow, if I can help it, any one to give more quality breeding for a fixed price than I will. Come to the home of the champion prizewinners and judge for yourself.

JOHN HAWTHORNE, Simcoe, Ontario.



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 chutes, both G. T. R. and C. P. R., at stable doors. Horses for Northwest trade a specialty. J. HERBERT SMITH, Manager

Clydesdale Stallions and Mares

Our new importation has just arrived at our stables here. All the animals are in good condition, of big size and quality. Come and inspect them.

Dalgety Bros., London, Ont.

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a choice lot of young stock of each of the following breeds:

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Some extra good young bulls, descendants of Joy of Morning and Broad Scotch.

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I believe I can show intending purchasers of Clydesdale stallions or fillies a bigger selection, better breeding, bigger horses, more character, more quality, more right-down high-class individuality, and will sell them for more reasonable prices, and give better terms, than any other man in Canada. Let me hear from you if you want a topper.

T. H. HASSARD, MARKHAM, ONT.

7 Imported Clydesdale Stallions 2, 3, 4 and 5 years of age. 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. THEDFORD STATION.

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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. BARBER BROS., GATINOUA PT., QUEBEC.

Auction Sale of Fifteen Imported Clydesdale Fillies AT ORMSEY GRANGE STOCK FARM, ORMSTOWN, P. Q., on the 2nd day of Ormstown's Great Spring Show, 18th May. 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.

NEW IMPORTATION ARRIVED Our 1910 importation of Clydesdale Stallions and Fillies are now at our stables. We can show some of the best individuals and best breeding sires imported. Our prices are right, and terms to suit. Phone connection. JOHN A. BOAG & SON, Queensville, Ont.

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Will take the thickest coat and leave a finish like silk.

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Can't get wrong in adjustment.

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For Horses, Cattle and Sheep

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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.

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S. J. B. & B. DUNHAM
WAYNE, ILL.

PLEASE MENTION THE ADVOCATE.

QUESTIONS AND ANSWERS.

Miscellaneous.

BLOOD CLOTS IN EGGS.

1. Please give the best varieties of vegetables for the farmer's garden. I think you did this two or three years ago, and it was a great help when making our seed orders in the spring.

2. What is the cause of blood spots on the yolks of fresh eggs. I broke an egg this morning and could not use it. It was not twelve hours old, but I know city buyers would say it was not fresh. We are getting between twenty and thirty eggs every day.

SUBSCRIBER'S DAUGHTER.

Ans.—1. List of desirable varieties of vegetables will appear in our columns shortly.

2. The best authorities attribute the cause of blood clots in eggs to continued feeding of rather stimulating food and rapid laying, which perhaps means that the oviduct is to a greater or less degree inflamed. A change in rations would probably be beneficial, with the addition of green food. Meat, pepper, or any sort of irritating food, is to be avoided.

DUTCH SETS FOR ONION CROP.

I have two acres of good, rich ground, plowed, and am going to get it harrowed, rolled, etc.

1. How many bushels of Dutch Sets are required to plant an acre?
2. When should I plant?
3. What is the cost likely to be?
4. Have a wheel hoe, and can do all the work myself. If expense is \$100 per acre, and yield 450 bushels, what should profit be if all work be done without hiring, the only cost being freight to city?
5. Are onions likely to be profitable?

I had two acres of seed onions last year, and they did well, but were rather late in ripening, and, therefore, am trying sets this year.

ONION GROWER.

Ans.—1. About eight bushels of sets are required to plant an acre.

2. Planting should be done as early in spring as possible.

3. Sets cost, at special rates, from \$4 to \$4.50 per bushel.

4. Profit depends on price. Last season, in Essex county, and in the Scotland onion-growing district, the price was 85 cents per bag of 75 lbs., at the station. Usually, the price is somewhat lower.

5. A lower price for the coming season would not be unlikely, but rather probable. Notice that David Chalmers, of Essex county, in March 2nd issue, estimates cost of raising onions per acre at \$110.

RAPE FOR HOGS—BUCKWHEAT—ALFALFA.

1. When would be the best time to sow rape for a couple of sows due to pig first of June, rape to last them through summer and fall? With the average-size litter, what area would it take?

2. Knew of a couple of men, neighbors, each of whom sowed rape for his hogs. The skin peeled off parts of body and tails, and even ends of ears came off of hogs. Was rape the cause of it, as they know of no other cause?

3. Would buckwheat do well on sod plowed in either spring or fall?

4. If alfalfa were sown behind the drill, would the harrow and roller put it in too deep?

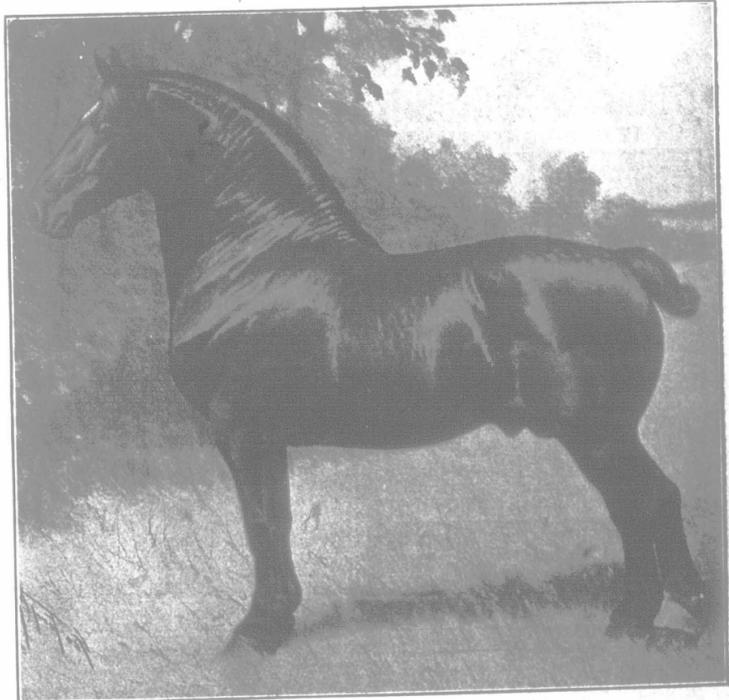
A SUBSCRIBER.

Ans.—1. Rape, sown about the middle of June, would come to full growth by the first of September, and might, of course, be pastured much sooner, and could be counted on for the remainder of the season. We should expect that about an acre and a half of land, if fertile, would be sufficient. Grain feed should, of course, be given in addition.

2. No doubt it was. It has been noticed that, occasionally, hogs pasturing on rape, become affected with an obscure skin disease, especially if allowed in the rape when the leaves are stiff with moisture.

3. Buckwheat should do well on fall- or spring-plowed sod, especially if several surface cultivations are given before seeding. It is common practice with some to take off first clover crop, plow immediately, and sow to buckwheat.

4. No. Alfalfa seed, being large, should be sown somewhat deeply.



Imported Percheron Stallion, MARATHON 55330 (68658).

Winner of First Prize and Reserve Championship at the International, Chicago, 1910. Property of and at the head of stud of W. S., J. B. & B. Dunham, of Wayne, Ill.

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Salem Stock Farm offers for a quick sale the grand four-year-old **SHOW STALLION, LORD BANCHORY, IMP. (8441) (14478)**. He is one of the very best Clydesdales in Canada. Could take in part payment a few Scotch Shorthorns or good work horses.

J. A. WATT, SALEM, ONT.; ELORA STATION, G. T. R. AND C. P. R.

CLYDESDALE STALLIONS (IMPORTED and CANADIAN-BRED)

I am offering a number of imported and Canadian-bred Clydesdale stallions, whose breeding is unexcelled and whose size, character, type and quality are essentially Canadian. They will be priced right for quick sale.

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IT HAS NO EQUAL

For — It is penetrating, soothing and healing, and for all Old Sores, Bruises, or Wounds, Felons, Cancer, Boils, Corns and Bunions. CAUSTIC BALSAM has no equal as a Liniment.

We would say to all who buy it that it does not contain a particle of poisonous substance and therefore no harm can result from its external use. Persistent, thorough use will cure every old or chronic ailment and it can be used on any case that requires an outward application with perfect safety.

Perfectly Safe and Reliable Remedy for
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Diphtheria
Sore Lungs
Rheumatism
and all Stiff Joints

REMOVES THE SORENESS—STRENGTHENS MUSCLES
Dorahill, Tex.—"One bottle Gombault's Balsam did my rheumatism more good than \$120.00 paid in doctor's bills."
OTTO A. BETER.
Price \$1.00 per bottle. Sold by druggists, or sent by us express prepaid. Write for Booklet E.
The LAWRENCE-WILLIAMS COMPANY, Toronto, Can.

As they some- As "SAVE-THE-HORSE" times are. can make them.



Time and Hardest Work Can't Bring It Back!
Lisboa, Ohio, Oct. 4, 1910. — I want to say there is no use of anyone driving a lame horse if they will just try "Save-The-Horse." I had one so lame I could not use him. After using one bottle of "Save-The-Horse" he has never taken a lame step, and I drive him every day in my business, which is serving papers over the hilliest county in the state. You can use this with pleasure, as this is absolutely a voluntary testimonial.
W. C. DAVISON, Sheriff of Col. Co.

E. C. MESSIER, Real Estate and Insurance, 1008 Elm Street, Manchester, N. H., Oct. 22, 1910.

I sent \$5 for "Save-The-Horse" to cure a Bone Spavin. At the time he was not worth \$1; before he had the Spavin I was of-fert \$500. Four veterinarians told me he was incurable, so I felt blue, as you might believe. Since one month after treating him with "Save-The-Horse" he has not taken a lame step and I have driven him every day, and even thirty miles the same day. "Save-The-Horse" has done more than four doctors in a year. Now it seems exaggerated, but anyone in doubt can call at the neighbors to prove what I say, and furthermore, the horse can give them a ride, and probably one of the best in their lifetime. I cannot say enough to praise your remedy. E. C. MESSIER.

\$5.00 a Bottle With Signed GUARANTEE
A binding CONTRACT to protect purchaser absolutely in treating and curing any case of Bone Spavin, Thorough-gate, Ringbone (except low), Cork, Splint, Capped Hock, Windpuff, Sheath, Injured Tendons and all Lameness. No scar or loss of hair. Horse works as usual. Send for copy of contract, book-let on all lameness and letters on every kind of case.
At all druggists and dealers, or express paid.

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Removes Bursal Enlargements, Thickened, Swollen Tissues, Curbs, Filled Tendons, Soreness from any Bruise or Strain, Cures Spavin Lameness, Allays Pain. Does not Blister, remove the hair or lay the horse up. \$2.00 a bottle, delivered. Book 1 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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CLYDESDALE STALLIONS
Four and six years old. Both dark brown. Sound and right, with best of breeding.
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Clydesdales AND TAMWORTH SWINE
For sale: Reg. Clydesdale stallion rising 3 years, bred from best blood in Scot and; also a few Tamworths, both sexes, bred from the best blood in England. Write, or call on: Chas. Currie, Morriston, Ont.

QUESTIONS AND ANSWERS. Veterinary.

CATARRH AND ECZEMA.

Cat commenced to sneeze a year ago, and got worse, until he discharged matter from the nostrils. This winter his fur began to drop out and I destroyed him. I have two other cats showing similar symptoms.
R. B.

Ans.—Give the cat $\frac{1}{2}$ grain quinine and 1 grain sulphate of copper, three times daily. Give a bath in a warm three-per-cent. solution of creolin once weekly. V.

LAME HORSE.

Occasionally, for a year, my horse has gone lame on hind leg when trotting, but he walks sound. For the last six months he has always trotted lame. When standing, he rests the foot on the toe.
J. F. W.

Ans.—The symptoms indicate what is called "an occult spavin." The lameness, in many cases, cannot be cured. The best treatment is firing and blistering the hock.
V.

FOUNDER.

Mare aborted on February 1st. Next morning she was foundered. I have poulticed and blistered her, but she is no better.
P. G. McI.

Ans.—This is called parturient laminitis, and your treatment was correct, if you attended properly to details. Give her a purgative of 8 drams aloes and 2 drams ginger. Remove her shoes (if she have any on), pare the heels well down, and apply a poultice of hot mashed turnips. Keep hot by occasionally pouring hot water on. Change the poultice about every 8 hours. Attend well to this until the acute lameness disappears. It may take four or five days. Then, if any tenderness remains, blister the coronet once monthly until it disappears. V.

NASAL DISCHARGE. WORMS.

1. Have a bunch of yearling calves that are growing well and eat well, but, when drinking, from their nostrils discharge a thick, white substance, that sinks in the water.
2. Have a herd of hogs that are not doing well. I killed one, and a post-mortem revealed long, white worms in the intestines.
C. A. B.

Ans.—1. This is due to inflammation of the lining of the sinuses of the head. Keep comfortable, and give each 20 grains powdered sulphate of copper, three times daily.
2. They will not thrive until rid of the worms. Make a mixture of 1 part oil of turpentine to 7 parts raw linseed oil. Fast the pigs for 12 to 14 hours, and then give from 1 to 4 ounces of the mixture, according to size of pig. Repeat treatment in a week. V.

Miscellaneous.

CLAIMING CHATELS.

A is a working man. He has four sons, all men, working out for farmers. They live together in a house on ten acres of land, which they own. Also, they have a horse, cow, buggy and cutter among them. The father contracted a debt, and he cannot be got to pay or work it out.

1. If the farmer should sue the father, can he claim to own nothing?
2. Could a bailiff, in the usual way, attach anything, or all he can find on the lot, and compel the sons to prove that the article is theirs, and not the father's—or will the farmer be required to prove ownership of the articles attached?
FARMER.

Ans.—1. It is open to him to do so.
2. The bailiff—assuming that judgment has been obtained in the Division Court, and Execution issued—could make such seizure, subject, of course, to the regular exemptions. The sons would then have to assert their claim, if any. Upon their doing so, the next step would be interpleader at the instance of the bailiff. In the trial of the interpleader issue between the Execution creditor and the claimants, under the circumstances, the claimants should be plaintiffs, and take on the burden of proof.

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For Horses and Cattle

Pratts Animal Regulator makes horses look better, work better and worth more money, improves their appetite, causes perfect digestion, and puts every ounce of food into strong muscle and pure blood.

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Now is the time to get your stock in shape for the hot weather. Pratts Animal Regulator will do it. It is

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We know that you will at once see great improvements from its use and we want you to try it at our risk. Give it to every animal—every day. If not satisfied your dealer will refund, without question, all you spend.

Get some today. Wasted time is wasted money. All dealers have Pratts Animal Regulator in 25 lb. pails for \$3.50. Also in smaller sizes and in 100 lb. bags.

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Clydesdale Stallions; Fillies Hackney Stallions

We have been importing Clydesdales and Hackneys for 5 years, and in that time have won at the leading shows in Canada and the United States the grand total of 40 championships against all comers on both sides of the line, besides dozens of firsts, seconds and thirds. We never had a better lot on hand than just now. They were winners in

Scotland, winners at New York, and winners at Guelph and Ottawa. They are the best types of the breed, with size, character, quality, action and breeding, and we sell them as reasonably as inferior ones can be bought, and give terms to suit. Clydesdale stallions and fillies and Hackney stallions.
Long-distance 'phone.

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BEDFORD PARK, ONT.

JUST 35 MILES EAST OF TORONTO TO Smith & Richardson's, Columbus, Ont.

There you are always welcome, and can always see first-class CLYDESDALE STALLIONS AND MARES of all ages, and moderate prices.
MYRTLE, C. P. R. Long-distance 'phone. BROOKLIN, G. T. R.

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MR. JOHN SEMPLE, of the firm of Semple Bros., Spring Hill Stud Farm, Milverton, Ont., and Luverne, Rock Co., Minn., U. S. A., importer of high-class Clydesdales, Shires and Percheron Horses, sails for Europe on Jan. 6th for his second shipment since August, 1910. This shipment will never have been equalled for their high-class breeding and individual merit. Intending buyers should see this shipment before purchasing elsewhere. By doing so they will save hundreds of dollars. Please note their arrival.

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.**

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.
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MARCH 16, 1911

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The methods employed at the Arnott Institute are the only logical methods for the cure of stammering. They treat the CAUSE, not merely the habit, and insure NATURAL Speech. If you have the slightest impediment in your speech don't hesitate to write us. Cured pupils everywhere. Pamphlet, particulars and references sent on request.

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Aberdeen-Angus The "TWEEDHILL" herd has been before the public for 25 years, and means quality and individual excellence. Young bulls, 12 to 15 months, and females all ages for sale. Write **James Sharp, Rockside, Ont.** Cheltenham Sta., C.P.R. & G.T.R.

ABERDEEN - ANGUS

Will sell both sexes; fair prices. Come and see them before buying. **WALTER HALL,** Drumbo station, Washington, Ont.

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.

GLENGOW SHORTHORNS

Have on hand four young bulls from 10 to 13 months old; also a number of choice heifers. For particulars write:

Wm. Smith, Columbus, Ont.

FLETCHER'S SHORTHORNS

Imported Shorthorn bull for sale. Just turned 4 years old. Benachie (imp.) = 69954 =, bred by A. T. Gordon; sire Scottish Farmer, grandson of Scottish Archer; dam Beatrice 22nd, which produced Bandmaster, the first-prize Royal winner.

GEO. D. FLETCHER, BINKHAM, ONT. Erlin Sta., C. P. R.

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 Angus; also a choice lot of ram lambs. Weston Station, G. T. R. and C. P. R. Long-distance phone.

HIGHFIELD, ONTARIO.

OAK LANE FARM 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.

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.

Shorthorns, Clydesdales, Oxford Downs

A number of red and roan bulls, 6 to 16 months, by Blossom's Joy = 73741 =; some with imp. dams. Heifers 1 and 2 years. Clydesdales of both sexes. Oxford Downs ewes. All at reasonable prices. Phone connection. **McFarlane & Ford, Dutton, Ont.**

Clover Dell Shorthorns—For Sale: Young stock of both sexes. Milking strains a specialty. Moderate prices. **L. A. WAKELY,** Bolton, Ont. Bolton Junction, C. P. R., ½ mile of farm.



QUESTIONS AND ANSWERS. Miscellaneous.

WART ON SOW.

Sow has a large wart on one of her teats. J. P.

Ans.—See answer to H. M. R.

LAME HENS—ROUP.

1. Two or three of my chickens seem to have no power in the joints of their legs. When I feed them, they hop around very stiff for a few yards, then lie down again. Otherwise they look healthy enough, nice and red in the face.

2. I also have two, each with a sore eye on the right side of the head. The right side of the head, around the eye, is swollen, and the eye is pale and watery, and also discharges matter. There does not seem to be anything the matter with the other eye, and the birds eat well. R. C.

Ans.—1. These chickens have probably had roup, and have been left weak, and the lameness has resulted from the lack of grit and lime. See that they are supplied with these, which are necessary to health in chickens.

2. These have roup, a dangerous and infectious disease, which may start from a simple cold, caused by a draft, or from too warm quarters, or from filth. The affected birds had better be separated from the others, and their heads bathed with a five-per-cent. solution of potassium permanganate. Place as much of the permanganate as will lie on a five-cent piece in a gallon of water. Use this for the drinking water of the rest of the fowls. It will tend to lessen danger of infection.

SCALY LEG—OATS AND WHEAT, BEST VARIETIES—NITRO- CULTURE—WHEN TO SOW PEAS.

We are very much pleased with your paper. It certainly gives us a lot of helpful instruction. My wife enjoys very much Hope's Quiet Hour, and The Ingle Nook.

1. Our hens' legs are very scaly. In fact, some of their legs are all covered with white scales. They pick them sometimes till they bleed.

2. Which do you consider the better kind of oats, Gartland's Abundance or the American Banner, and which is the better wheat, the Early Windsor or the Dawson Golden Chaff?

3. How much culture is required for treating 1½ bushels seed of alfalfa, and how much would it cost me?

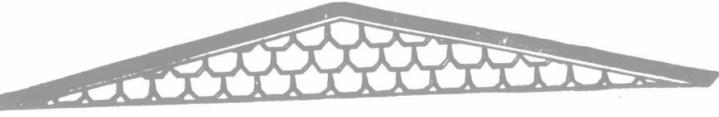
4. When, during seeding time, do you recommend sowing peas, in the beginning, or at the end? Do you think that the full of the moon has anything to do with their growth? J. A. B.

Ans.—1. "Scaly leg" is caused by a mite which burrows under the scales of the feet and shanks. It is contagious. Treatment consists in soaking the feet and legs in warm, soapy water, to loosen the scales, and brushing vigorously with an old tooth or nail brush, afterwards applying sulphur ointment, or a mixture of lard and kerosene. Sulphur ointment is made by mixing a teaspoonful of lard with a dessertspoonful of sulphur.

2. On the experimental plots, O. A. C., Guelph, the American Banner oat yielded two bushels per acre more than the Abundance, in the average of several years' test, as reported in 1909, and Dawson's Golden Chaff wheat outyielded, on the average, the Early Windsor. Even if the result had been somewhat in favor of the new varieties, we would prefer to bank on the old standard sorts.

3. One lot, costing 25 cents, will treat a bushel. It is supposed to be sent out from the Ontario Agricultural College for experiment, and we are not sure whether more could be obtained by one person in one season. However, you might try.

4. The average of five years' experiments at the Ontario Agricultural College, indicated the advisability of sowing spring grains in this order: Wheat, barley, oats, peas. Where the pea weevil is troublesome, it is wise to defer sowing until the last or even the 20th of May; otherwise it is desirable to sow moderately early, though a delay after the most desirable date does not cause so serious reduction of yields as with the other grains.



How "Eastlake" Steel Shingles will save you money



Talk No. 2

Durability

By
The Philosopher of
Metal Town

Durability—just the difference between a roofing that lasts only a few years and one that remains in perfect condition for a life-time.

That's the difference between "Eastlake" Steel Shingles and other roofings.

Actual service is the only sure test of roof quality.

"Eastlake" Steel Shingles have been proven positively superior by the test of time.

Barn and house roofs covered 25 years ago with "Eastlakes" are in perfect condition to-day.

That's your proof—your only protection, and is safer than all the highly-colored, many-worded guarantees that really guarantee nothing.

"Eastlake" Steel Shingles are made of the finest sheet steel, and have a patented side-lock and gutter that locks permanently—makes the roof one sheet of indestructible steel.

They are easy to lay, and remain weathertight, snow, wind, rain, lightning and rust proof as long as the building stands.

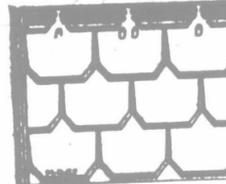
Send for our illustrated booklet, "Eastlake Metallic Shingles." It gives more reasons. Write to-day—a post-card brings the booklet.

We also manufacture Corrugated Iron, Barn and House Siding, Metallic Ceiling, Eave-trough, Conductor Pipe, Ventilators, etc.

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"EASTLAKE" STEEL SHINGLES



AGENTS WANTED IN SOME SECTIONS.

Elm Park Aberdeen-Angus

We have the choicest lot of young bulls for sale that we have ever offered. **JAMES BOWMAN, E.P.,** Phone 708. Guelph, 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, Gainsville, Ont.** Langford Station. B. H. Radial in sight of farm. Bell phone

Shorthorns and Clydesdales For sale: 6 bulls 14 to 20 months old (4 reds and 2 roans), 6 bulls from 10 to 13 months (3 reds, 2 roans and 1 white); 15 imported and home-bred cows, in calf and with calves at foot. Herd bulls: Bullrush (imp.), a Cruickshank Butterfly; and Royal Winner (imp.), a Marr Bessie. A richly-bred Clydesdale stallion rising two years by imported sire and dam. Visitors always welcome. **W. G. Pettit & Sons, Freeman, Ont.** Burlington Junction station, G.T.R. Bell phone.

Maple Leaf Shorthorns and Hampshire Hogs

Offering for sale Shorthorn bulls and heifers and young Hampshire pigs. **PORTER BROS., APPLEBY P.O., BURLINGTON STA. 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**

Irvine Side Shorthorns

ELORA STATION, G. T. R. & C. P. R.
J. WATT & SON, SALEM, ONTARIO.

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.

PLEASANT VALLEY SHORTHORNS

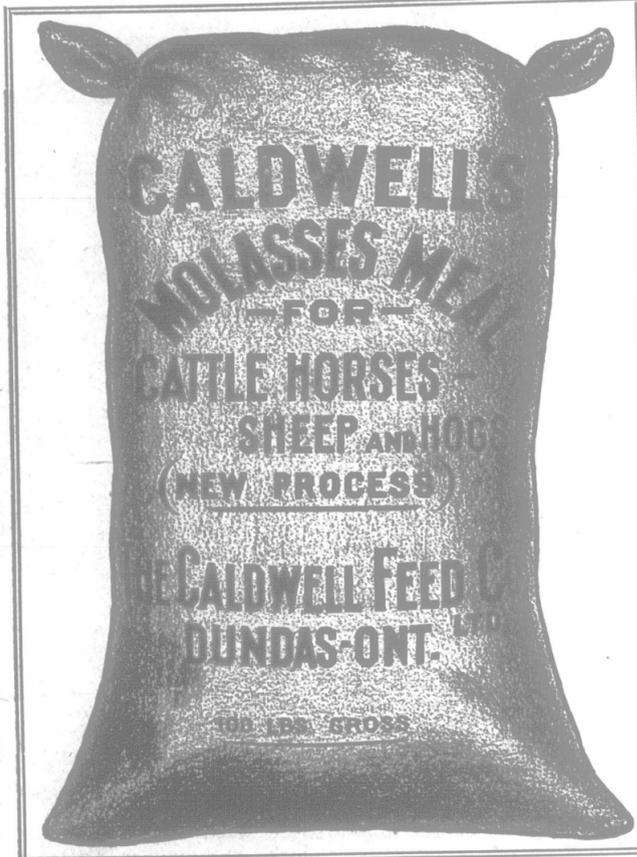
For Sale: 1 red, 1 roan, 2-year-old show bulls. Several good bull calves, also some yearling heifers. Some show propositions among them. If interested, write or call and see us before buying. **GEO. AMOS & SONS, MOFFAT, ONTARIO.** Farm 11 miles east City of Guelph on C. P. R. ½-mile from farm.

SUNNY SLOPE SHORTHORNS

A. EDWARD MEYER, BOX 378, GUELPH, ONT.

I breed Scotch Shorthorns exclusively. I have some choice young females safe in calf and some good young bulls for sale at present at prices you can pay. Long-distance phone.

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Write to-day for literature and prices.

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.

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 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

Very desirable young 1911

SHORTHORN BULLS FOR SALE.

Have best milking strains. LEICESTER SHEEP of highest quality. Lucan Crossing, G. T. Ry. Telegraph, Ailsa Craig. Telephone.

A. W. SMITH, Maple Lodge, Ont.

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 Short-horn 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.

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.

4 Shorthorn Bulls

FOR SALE, of choicest breeding, with size and quality. Several females, all bred from heavy-milking dams.

Thomas Graham, Port Perry, Ontario.

Imp. Scotch Shorthorns

When looking for Shorthorns, be sure to look me up. Young bulls fit for service, and females all ages; bred in the purple, and right good ones. A. C. PETTIT Freeman, Ont.

QUESTIONS AND ANSWERS. Miscellaneous.

EVERLASTING.

Please give information respecting the winnings of the noted Clydesdale stallion, Everlasting (11331) [5346], by Baron's Pride. OLD SUBSCRIBER.

Ans.—We have no means of tracing the winnings of Everlasting, further than that he was first as a yearling in 1901, and champion in 1902 and 1903, at the Highland and Agricultural Society's Show, besides winning later many premier honors, though, like his sire, he has been retired from the show-ring for some years.

LOSING A SECTION OF UDDER.

I have two splendid cows which freshened last spring. One should have come in again in March, but lost her calf in January. She milked right along. The other cows did not get in calf. Each of those cows give thick, matty milk out of one teat. What can be done for them? The affected quarters seem to be shrinking up. FARMER.

Ans.—There seems scarcely any hope of saving the affected quarters of udders, but it would be wise to try bathing twice a day for a week with hot water, manipulating freely, and, after rubbing dry, apply goose oil, well rubbed in. Draw out contents of the quarter during above treatment. A purgative of 1½ lbs. Epsom salts, followed, after purgation ceases, with a dessertspoonful of powdered saltpetre, in food.

SURROGATE FEES, ETC.

1. In probating a will to an estate, probably \$10,000, providing one small annuity and a few minor claims, what should the fee be in the Surrogate Court?
2. What should the fee be for registering Executor's deed and release of claims?
3. What should be a reasonable fee for solicitor doing the work?

4. Can the future owner mortgage or sell such estate, or part thereof, without release of annuity claims? FARMER'S FRIEND.

Ontario.

Ans.—1, 2 and 3. The respective amounts of these fees depend upon many circumstances besides the amount of estate involved, and having no information in respect of such circumstances, we are unable to give the desired figures.

4. Probably not—at least, it would not be regular or usual to do so.



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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.

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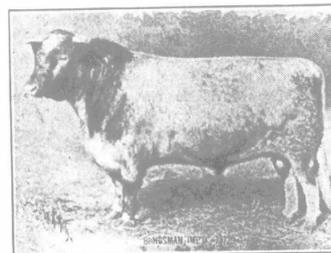
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SCOTCH SHORTHORNS

100 HEAD IN HERD.

Headed by the imported bulls: Bandsman, a half-brother to the \$6,500 Count Crystal, the highest priced calf on record in Scotland; and Village Duke, a son of Villager, winner of 18 first and special prizes in Scotland. For sale: 12 good young bulls and heifers. All of noted Scotch breeding. In calf to our stock bulls.

Farm ¼ Mile from Burlington Jct. Sta.

Long-distance phone.

Mitchell Bros., Burlington, Ont.



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 best class, at prices that you can afford to pay. The young bulls are by one of the greatest sons 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 eyes 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.

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to remove the lameness and make the horse go sound. Money refunded if it over 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.

FLEMING BROS., Chemists,
75 Church St., Toronto, 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.

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.

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,
Elmdale Farms, Thorold, Ontario

Riverside Holsteins

Choice bulls 6 to 9 months old, sired by Sir Pieterje Posch De Boer and Prince De Kol Posch. Later is the only son of champion cow, dairy test, Guelph, 1908 and 1909, and out of R. of M. dams.

J. W. Richardson, Caledonia, Ont.

Haldimand Co. Long-distance phone.

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, Folden's, Ontario

Notice! In public test we have the champion and 2nd highest scoring cow; world's record 3-year-old, junior champion 3-year-old in official test. Average per cent. fat 4.55. Herd headed by Grace Fayne 2nd's Sir Colantha. Sire's dam and sister with 35 pounds butter records each. **M. L. Haley and M. H. Haley,** Bull calves for sale. **Springford, Ontario.**

Elmwood Holsteins Offer choice young cows to freshen during March and April, 1911. Spring crop calves. Sired by Ykema Sir Posch and Pontiac Sarcastic—a grandson of Henderveldt DeKol. Prices right. Express prepaid. Safe delivery guaranteed. **E. D. George & Sons, Putnam, Ont.**

Springbank Two choice-bred bull calves for sale. One is 10 months, the other 8 months. From high-class milkers. Prices reasonable. For particulars and breeding write to: **Wm. Barnett & Sons, Living Springs, Ont.** Fergue, C. P. R. and G. T. R.

Holsteins and Tamworths for Sale—Seven bulls, boars fit for service; sows bred, pigs, either sexes, from 6 weeks up. Sixty-five to select from. Phone connection, via Cobourg. **BERTRAM HOSKIN, The Gully P. O.**

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 highest testing stock, giving 12 lb. at 2 years to 22.8 lbs. for mature cows. Sired by Sir Mercena Favorite. Dam and grand 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—Holsteins and Yorkshires. Holsteins all sold out. Have a few young Yorkshire sows, at 2 months old, for sale cheap. True to type and class. Bred from imported stock. **Thos. E. Cartlaw & Son, Warkworth P. O., Ont.** Camp and Station.

Ridgeway Holsteins—I have left three bull calves that will be priced for quick sale; their dams are heavy producers and their sire was bred right. **R. W. WALKER, Utica, Ont.** Phone connection.

QUESTIONS AND ANSWERS.
Miscellaneous.

BEST VARIETY OF OATS.

Which oats do you think best for clay loam that is well surface drained?

W. L. H.

Ans.—There is room for great difference of opinion, but so far as our observation goes, there has appeared nothing to beat the American Banner for all-round utility. See variety-test reports from Experimental Farms.

ABORTION—INFECTED BULL.

Kindly publish the remedy (if possible) for a sire failing to impregnate the cows. He served cows some months ago that had aborted. May that be the cause? We have not had any trouble of this nature for some years. **SUBSCRIBER.**

Ans.—There is little doubt that the bull is infected with the abortion germ, and, in all probability, is infecting the cows to which he is bred, but this infection does not necessarily cause his failure to impregnate. It will be necessary to cease breeding operations with him for five or six months. In the meantime, you will need to inject his sheath about every third day with a solution of corrosive sublimate, 50 grains to a gallon of water, and heated to 100 degrees Fahr., and, when he is bred again, his sheath should be flushed out, both before and after breeding.

WARTS—ALFALFA ON WHEAT.

1. I have a cow three years old which has a raw wart on the side of her face. Would you kindly tell me how I can cure it?

2. I have a field of fall wheat, top dressed with barnyard manure. Would alfalfa seed do well in it, to sow this spring? About what time? The land is a clay loam. **H. M. R.**

Ans.—1. Warts with small necks can be clipped off. Large, flat ones, should be dissected off. The raw surfaces should be dressed once daily for three or four days with butter of antimony, applied with a feather, and, after that, three times daily with one part carbolic acid to thirty parts sweet oil, until healed.

2. Some claim to have seeded alfalfa successfully with fall wheat. A few have sown it on the snow or on frozen ground, like clover seed; others wait and harrow the seed in. We should prefer to wait until the ground is fit for the harrow, before sowing alfalfa on wheat. A double stroke of the harrow after the seed is sown, followed by the roller, would cover it.

MAINTENANCE OF DITCH.

There was a large drain dug through my place two years ago, and this drain is under the Ditches and Water Courses Act. There were a large number paid towards digging this ditch. Size of ditch is 15 feet wide by 3 1/2 feet deep, and now the banks have crumbled down, and in some places it is 20 feet wide, for a part of the land is sandy. On my place, and on the next lot, there is a lot of sand in the bottom of the ditch. The most of this sand has come off my lot. What I want to know is, who is to take this sand out of ditch, and will each of us have to take our share of the sand; that is, as far as the ditch goes through each lot, or will I have to take all of the sand? I went to our Council last fall to get them to take this sand out, and they did not want to act in the matter, for they said they did not know who had to do this work. My assessment on ditch was \$315 for 137 acres; my next neighbor's was \$85 for 100 acres. He has about as much ditch as I have. He says he will not take any of the sand on his place unless he is paid for it. Can he be made to take his share of the sand? **H. O.**

Ans.—You and your neighbor are both required by the Act to maintain the ditch in the proportions provided in the award, and in the event of your neglecting to do so, such maintenance may be enforced at the instance of any of the owners—parties to the award—whose lands are affected by the ditch. The manner of such enforcement is set out in the Act. But either of you may now take proceedings for a reconsideration of the award. Such proceedings would be similar to those provided by the Act for the case of the construction of a ditch.

Is Your Farm Spick and Span?

Lumber is growing more and more expensive every year. Don't let valuable buildings go to pieces for a little paint. Keep your farm buildings spick and span with Moore's Paints.

MOORE'S Roof and Barn Paints

There is no better paint than Moore's House Colors, for better paint cannot be made. Your dealer probably has them. If not, write to us.

MOORE'S Paints and Varnishes for every Purpose.

Don't fail to use MURESCO to brighten and beautify your rooms. Write for descriptive literature.

BENJAMIN MOORE & CO.

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LAKEVIEW HOLSTEINS

Two young bulls, calved March 27th and April 25th, sired by Count Hengerveld Fayne De Kol, whose sire is the sire of De Kol Creamale, 10,017 lbs. milk in 100 days, and whose dam is the dam of Grace Fayne 2nd's Homestead, who made 35.55 lbs. butter in 7 days. These two bulls are mostly white, and are smooth and big. Must make room for these season's calves, and will sell reasonably.

E. F. OSLER, BRONTE, ONTARIO
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 calves for sale. We are booking orders for spring pigs, also sows safe in pig. We invite inspection of our herd. Trains met at Hamilton when advised. Long-distance Bell phone 2471 Hamilton.

D. G. FLATT & SON, MILLGROVE, ONT. R. F. D. NO. 2

Fairview Farms!

We are offering sons of Pontiac Korndyke, sire of the world's record Pontiac Clothilde De Kol 2nd, 37.20 lbs. butter in 7 days, and the sire of seven daughters that average 31.13 lbs. each in 7 days. Also sons of Rag Apple Korndyke, whose dam, Pontiac Rag Statesman, has a record of 34.41 lbs. each, equalled by no other two full sisters of the breed. Also sons of Sir Johanna Colantha Gladi, whose dam and sire's dam average 33.61 lbs. each, which is higher than can be said of any other sire of the breed. Dams of many of these calves are high-record daughters of Pontiac Korndyke and Rag Apple Korndyke. Write me for breeding and price. **E. H. Dollar, Heuvelton, St. Law. Co., N. Y.**

MAPLE HILL HOLSTEIN-FRIESIANS

Females all ages. Write for what you want, or come and see them. Bell Telephone. **G. W. CLEMONS, ST. GEORGE, ONTARIO.**

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 Bonheur Statesman. Their grand dams 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.**

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.**

Burnside Ayrshires

America's champion herd; over 100 head to select from; practically all imported and bred from imp. sire and dairy test at Ottawa over all breeds. We can supply car lots. **R. R. NESS, HOWICK, QUE.**

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 Begg, R. R. No. 1, St. Thomas, Ont.** Bell phone.

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 boars fit for service. Young pigs ready to ship. Write for prices and particulars. Long-distance phone. **ALEX. HUME & CO., Menie P. O., Ont.**

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.**

HILLVIEW 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**

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. F. 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.

HILLVIEW AYRSHIRES.

Imp. Hobsland 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.**

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.**

Stockwood Ayrshires

Imported and Canadian-bred. High producers and high testers. Females of all ages for sale, also several young bulls, from 8 to 13 months old. Imp. sires and out of imp. dams. Right good ones, and bred from winners. **D. M. Watt, St. Louis Station, Quebec.**

Caught a Cold Which Ended in a Severe Attack of Pneumonia.

Too much stress cannot be laid on the fact that when a person catches cold it must be attended to immediately, or serious results are liable to follow.

Bronchitis, Pneumonia and Consumption are all caused by neglecting to cure the simple cold.

Mrs. G. W. Bowman, Pattullo, Ont., writes:—"Three years ago I caught a cold which ended in a severe attack of Pneumonia. Since that time at the beginning of each winter I seem to catch cold very easily. I have been so hoarse I was unable to speak loud enough to be heard across the room. Last winter, however, a friend advised me to try Dr. Wood's Norway Pine Syrup, saying it had helped her. I bought a bottle and before it was half used I was completely cured. I also find it a good medicine for the children when they have colds."

Beware of the many imitations of Dr. Wood's Norway Pine Syrup.

Ask for "Dr. Wood's" and insist on getting what you ask for.

It is put up in a yellow wrapper; these pine trees the trade mark; the price, 25 cents. Manufactured only by The T. Milburn Co., Limited, Toronto, Ont.

An old Pennsylvania German living in the mountains had a hard three hours' dusty walk to accomplish one morning and he rose very early to make his start. He had gone but a little way when he was overtaken by an automobile, which was probably the first that had passed along that way. The driver picked up the old man, and they were at his destination in about twenty minutes. "Danks so much awfully mit de ride. If I had known myself to be here already two hours in front of de clock yet I vud be at home fast asleep already to start unless I knew you vud not have picked me up since."

CARRIED GLADNESS TO THIS HOME

Mrs. Annie Vanvorst's Heart
Disease Cured by Dodd's
Kidney Pills.

She found quick relief in the old reliable Kidney remedy, and advises all her friends to use Dodd's Kidney Pills.

St. Benedict, Sask., March 13.—(Special.)—Gladness has replaced the anxiety that reigned in the household of Mrs. Annie Vanvorst, of this place. For some time past Mrs. Vanvorst had suffered from Kidney Trouble and palpitation of the heart, and fears were entertained of those terribly-sudden fatalities that so frequently accompany affections of the heart. But relief from both ailments was quickly found in the old reliable remedy, Dodd's Kidney Pills. In an interview, Mrs. Vanvorst says:

"I had palpitation of the heart, and my Kidneys were out of order. I took one box of Dodd's Kidney Pills, and found great relief. For a Kidney pill, Dodd's Kidney Pills cannot be beat. You may publish what I say, as it may be the means of benefiting others who suffer with Kidney Trouble or Heart Disease."

Pure blood is the basis of all health, and you can't have pure blood unless your Kidneys are in good-working order. Dodd's Kidney Pills never fail to put the Kidneys in perfect-working order.

QUESTIONS AND ANSWERS. Miscellaneous.

ALFALFA MANURING AND DISKING.

I sowed a field to alfalfa and got a fair catch. Last fall I topped dressed it, using a manure spreader. Would you advise raking off what long straw and cornstalks that are on top this spring? Would disking be all right next spring, or is it more for older meadows? J. P. P.

Ans.—If there is much long straw and cornstalks, it might be advisable to rake off the rough of it so as to keep it out of the hay. We have never tried disking a field under these conditions, and should not consider it necessary. You might try it on a small strip as an experiment.

STALLION ROARS—PILING MANURE VS. LEAVING IN YARD—WIRE-FENCE BOUNTY.

1. There is a valuable Clydesdale stallion in our vicinity which roars. Is it advisable to breed a mare to that horse, and will the offspring be affected with roars, too?

2. Which is more advisable, to draw the manure to the field and pile in one heap, and let it rot there and plow under in spring, or to leave it in the barnyard and haul it out in little heaps in spring, and then have it plowed under?

3. We intend to make a wire fence along a side-road. Some townships allow ten cents per rod to any person making wire fence along the roads, because it does away with snowbanks in winter. Is this only a by-law, or is the Council bound to do so? FARMER'S SON, Ontario.

Ans.—1. It is not wise to breed to a roarer. The tendency to that trouble is considered hereditary.

2. It depends on conditions. Probably on level land, the best plan is to haul out to the field as made, and spread on the land. On rolling fields, intended for corn or turnips, it is probably better to deposit in small piles, or else stack in large, neat piles, and distribute early in spring with the spreader. While the manure will be preserved in the barnyard with little waste, if kept fairly well together and trampled with stock, the work of hauling in spring is so heavy as to render this plan uneconomical under most conditions. Avoid conditions which favor fermentation. Rotting means waste.

3. Wire-fence bounty is purely a local affair, brought into effect by township by-law.

ORCHARD QUESTIONS—PIG PASTURE.

1. What time in the spring is the right time to plow an orchard?
2. How deep should it be plowed?
3. Is it best to sow rape on it; and, if so, what time should it be sowed, and how much should be sown to the acre?
4. Is it all right to turn pigs on the rape, and how far advanced should the rape be before the pigs are turned on?
5. What is the right time to prune an orchard?
6. Is it best to plow the rape under and sow clover in the latter part of the summer?
7. How many pigs will two acres of red clover pasture, and, in pasturing pigs, is the clover enough for them, or should they get grain with it? H. S.

Ans.—1. As soon as the land is in good plowing condition, or as promptly thereafter as may be convenient. In your locality, it should be done early in May.

2. About as shallowly as it can be plowed, and a good job done. Run the plow very lightly near the trees; it may go 3½ or, possibly, 4 inches deep in the center of the spaces.

3. Some cover crop should be sown the last of June or early in July. Rape is not a very good cover crop for a bearing orchard. Common Red or Mammoth clover is better. Vetches and alfalfa are also excellent. The cover crop, of course, is to be plowed under the next spring.

4. As a rule, the cover crop had better be allowed to grow without any pasturing.

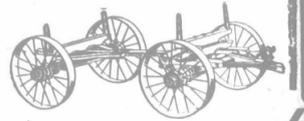
5. June is the best time, but March is generally preferred, because there is then more time to do the work.

6. No. See answer to question 3.

7. It all depends. The pigs should be fed meal and skim milk or whey, if available. Then two acres of clover would graze quite a herd.

GOES OVER THE ROUGHEST ROADS WITHOUT LIGHTENING THE LOAD

Equip your wagons with T-K Wide-tire Steel Wheels, and eliminate all annoyances and trouble incident to travelling over bad roads. You can load and unload in half the time required with wagons fitted with wooden wheels, and no matter how rough the road, or how heavy the load, these wheels will stand the strain that would put others out of business in no time.



TK

WIDE-TIRE STEEL WHEELS AND HANDY FARM WAGONS

T-K Handy Farm Wagons are the best kind of wagons on earth for all sorts of hauling, and will last a lifetime without repairs. They combine all the best features that are to be found in any wagon, irrespective of price, besides several other features of superiority exclusive with us.

Write to-day for literature that will help you save money on the farm.
Address: Tudhope-Knox Co., Ltd., Orillia, Ont.

Write for Free Book and Special Prices To-day.

FARNHAM FARM OXFORDS AND HAMPSHIRE CHAMPION FLOCKS OF BOTH BREEDS.

We are offering at reasonable prices a limited number of yearling and two-shear ewes by imported sire, and bred to our two champion imported rams. Long-distance phone in the house. Central Guelph, Telephone Guelph. Guelph, G.T.R. Arkell, C.P.R.

HENRY ARKELL & SON, ARKELL, ONT.

MAPLE VILLA OXFORD DOWNS AND YORKSHIRES

Are ideal in type and quality. Present offering is a grand lot of ram lambs for flock headers, also a number of shearing ewes and ewe lambs, sired by imp. Hamptonian 222nd. Yorkshires of both sexes and all ages. Right good ones. Satisfaction assured.

Bradford or Beeton Station. J. A. CERSWELL, Bond Head P.O., 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.

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.

STOP! LOOK!! READ!!! FAIRVIEW SHROPSHIRE!!!!

Home again, and are feeling well. Ready to start making good for another year. Conditions seem right for constant progress. We are determined to lead, follow who may.

J. & D. J. CAMPBELL, Fairview Farm, Woodville, Ontario.

Oxford Down Sheep, Shorthorn Cattle, Yorkshire Hogs

Present offering: Lambs of either sex. For prices, etc., write to John Cousins & Sons, Harrison, Ont. Buena Vista Farm.

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. & Stn.

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.

Pine Grove Yorkshires

For sale: A choice lot of young boars fit for service; also sows already bred. Are booking descendants of imported stock. Property of Joseph Featherston & Son, Streetsville, Ont.

DUROC - JERSEY SWINE

30 choice young sows, bred and ready to breed. Young boars fit for service. Also a choice Jersey bull calf. Bell phone in house. Mac Campbell & Sons, Northwood, Ont.

White-Belted Hampshire Hogs

Largest herd in 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.

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.

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.

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 boar, 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: Some choice young sows, bred and ready to breed; young boars ready for service, nice things, 2 to 3 months. Long-distance phone. J. J. Wilson, Importer and Breeder, Milton P.O., C. P. R. & G. T. R.

ALBERT WHITE YORKSHIRES

Am offering during the month of Feb. a choice lot of bred sows, young boars ready for service, and young pigs of different ages. Orders booked for spring pigs. Pairs supplied not akin. All at reasonable prices. Write, or call on:

H. J. Davis, Woodstock, Ont. Long-distance Bell phone.

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

WHEN WRITING ADVERTISERS MENTION THE FARMER'S ADVOCATE.

Spread of the Rural Telephone Movement.

The movement for communication among farms, and for better connections between rural and city districts, has increased wonderfully within the past few years. To those who are ignorant of the real statistics, the figures of the latest telephone census in the United States are amazing.

To the Canadian farmer, these figures, indicating the possibilities for the growth of the rural telephone in this country, are very interesting.

For the period from 1902 to 1907, the number of rural-telephone stations in the entire country increased 449 per cent. In 1902, there were but 266,966 rural-telephone stations in the United States; five years later there were 1,464,733.

The reasons for this growth are not so hard to find. Life on the farm used to be irksome—distances were so great. The telephone is the annihilator of distance. As one farmer expressed it, "I am next door to everybody I want to talk to. That telephone puts my isolated farm in the heart of things." Roosevelt's Country Life Commission designates the telephone as one of the foremost influences making for the solution of the rural problem.

When it is considered that the average farmer can install this advance agent of development at a cost less than the present return from thirty bushels of wheat, it is not difficult to understand why the rural telephone is making great strides throughout the entire country.

It is not an unusual sight to witness gangs of farmers at work on the roads, erecting poles, stringing wires, and installing the instruments in the farmhouses along the countryside. The work is usually done on a co-operative basis.

Sometimes six or eight neighboring farmers start the movement. In case there are as few as this, no switch-board is necessary. Construction and maintenance are of the simplest nature. A single pair of wires will suffice, and the "party-line" system is found the most convenient and useful. As demands grow, extensions are made, and, usually, connection is established with the rest of the world.

Of all the agencies that help to bring greater opportunities to the farms—the good-roads movement, railroad extensions, the rural-mail delivery, and the farm telephone—the least costly, and because it reaches the largest number, one of the most important, is the telephone.

The Northern Electric and Manufacturing Company, Limited, whose advertising appears in our pages, publish a book entitled, "How to Build Rural Telephone Lines." This publication treats the subject in a simple and comprehensive way; it is profusely illustrated in a way which enables anyone with ordinary intelligence to construct a practical telephone line of a limited number of stations.

GOSSIP.

The dates of Canada's great Eastern Exhibition, at Sherbrooke, Que., for 1911, are from Sept. 2nd to 9th.—H. E. Chanell, Secretary-Treasurer.

Dr. D. McEachran, Ormstown, Que., sailed March 8th, on steamship Celtic, for the Mediterranean, but expects to return via Great Britain, with an importation of Clydesdales, which he intends shall be the best he has ever brought over, and will sell them at auction May 18th, to the highest bidder, as indicated in our advertising columns.

Volume 22 of the Shire Horse Stud-book of Great Britain and Ireland, has recently been issued, and a copy received at this office, thanks to Secretary Slough-grove, 12 Beaver Square, London, W. This volume consists of 1,088 pages, and contains pedigree records of stallions numbering from 2845 to 28954, and of mares numbering from 62507 to 65530, a total of 4,022 entries, showing a very prosperous condition of the Society, and of the industry of breeding high-class draft horses of the breed. A list of prizewinners at various shows in 1910 is also given, together with a list of members of the Society, which are numerous.



N. M. RUTHSTEIN
The Steel Shoe Man—He has made a million feet happy.

To Dealers—

Get in line with the leading merchants of Canada and supply your customers with my Steel Shoes. Save them the bother and delay of ordering direct—as they do when dealers disappoint them. A man who knows Steel Shoes will have no other kind—he knows their extra-comfort, extra-health and economy features. Write for terms today to Pfachford, Davies & Co., Ltd., 60-62 W. Front St., Toronto, Canada's Leading Shoe Jobbers.

Do it now and give your customers a square deal on the work shoe question.



Free

Write for my book, "The Sole of Steel." But order your pair now in a hurry.

Join the Great Army of 500,000 Who Wear Ruthstein's Steel Shoes— For Comfort, Health and a Saving of \$10 to \$20

HALF a million people have bought my Steel Shoes. Every pair was sent out on Free Examination. Every pair could have been returned. But the half million people recognized at once what my Steel Shoes meant. Today not one of them would do without my Steel Shoes. They now know perfect comfort in all kinds of work—in all kinds of weather. They know what it means to be free from wet feet, and all resulting sickness, such as colds, rheumatism, neuralgia, sore throat, and even the dreaded pneumonia. They know what it means to be free from corns, bunions, callouses, and sore, aching, tired feet. And they know real shoe economy. For the half million Steel Shoe wearers will each save \$10 to \$20 shoe money on every pair of my shoes. Steel Shoes outlast 5 to 6 pairs of ordinary shoes. Don't you want to join this great army of health-savers and money-savers? Don't you want to do your work without your feet bothering you? Don't you want to save about \$10 on your shoe money every year? Then wear Steel Shoes, like the half million that are now doing it!

No More Wet or Cold Feet

There is nothing in the world like my Steel Shoes. Nothing can even compare with them. The soles are stamped out of a thin, rust-resisting, seamless, special process steel. This steel extends from heel to toe and up around the edges. There are no cracks or seams. The soles are studded with adjustable steel rivets which protect them from wear and give a sure, firm footing. When rivets wear out they can easily be replaced by yourself. Fifty rivets cost 30 cents and they will keep your shoes in good repair for two more years.

The uppers are made of the very best quality of pliable, water-proof leather, fastened forever to the steel bottoms. Water or cold cannot penetrate my Steel Shoes. Thus they keep your feet always dry and comfortable! And Steel Shoes have inner soles of springy hair-cushion which gives elasticity to tread and absorb jar when you walk on frozen ground. But comfort isn't all. You

Save Doctor Bills Prevent Rheumatism, Colds, Neuralgia, Corns, Bunions, Etc.

Do you know the real reason why you get so tired standing on your feet all day tramping around? It's a hundred to one that you have broken down the instep of your leather shoes, making you stand flat-footed. There's where the fatigue comes in. Thousands of people have their shoes made to order putting in steel shanks to prevent this.

Every pair of steel shoes that I make prevents it. But that isn't all. Steel Shoes protect your health in many ways. They are easy to wear and dry as powder. Cool in the summer, warm in the winter and dry all the year round.

Outwear 3 to 6 Pairs of the Best All-Leather Shoes

Note the quality of the uppers. See the turned-up steel soles—and how overlastingly they are fastened to the uppers. Note the adjustable rivets which can be replaced at a trifling cost when worn down. Examine every part carefully. Satisfy yourself that Steel Shoes are the only kind of work shoes fit to wear. Nearly every progressive, wide-awake dealer in Canada sells and recommends Ruthstein's Steel Shoes. Go to your dealer. If he can't supply you, order direct from me. I'll send you a pair—the size and style you want at these prices—and I'll send them out on free examination. Made in all sizes from 5 to 12, for boys and men. 6-in. high—\$3.00. 6-in. high with extra grade of leather—\$3.50. 9-in. high—\$5.00. 12-in. high—\$6.00. 16-in. high—\$7.00—the best shoe on the market regardless of price. Boys' Steel Shoes—sizes 1 to 4. 6-in. high, Boys' Steel Shoes—\$2.50 per pair. 9-in. high, Boys' Steel Shoes, black or tan—\$3.50 per pair. In ordering give correct size. Boys' Steel Shoes will please the boy and save you money and worry.

Start Wearing Them At Once Ask your dealer, but if he can't supply you, order right from this advertisement if you are in a hurry. Be sure to state size of shoe you wear. You take no risk. Money back if not exactly as I say or if you are not satisfied when you see my Steel Shoes. See your dealer at once—or order from this advertisement. Anyway send for my book—"The Sole of Steel." It is free. Address me personally.

N. M. RUTHSTEIN, Secretary and Treasurer
Steel Shoe Company

Dept. 18 Toronto, Can.

U. S. Factory, Racine, Wis.

Great Britain Factory, Northampton, Eng.

"IDEAL" FENCE
Made to Last

Wise farmers buy things that are sure to last long. For this is true economy and good sense. And it is these wise farmers who have made the sales of "IDEAL" Woven Wire Fence grow far more rapidly than any other fence on the market. It is made to LAST. Same large gauge No. 9 hard steel galvanized wire throughout—amplest strength—surest service.

Study this Lock

See how the Ideal Lock grips the wires in five different places—with no sharp turns—firmly, evenly. Thus this Lock absolutely prevents the wire from slipping in any direction. See the waved horizontal wires. They give spring and elasticity and long life to the fence, and provide for expansion and contraction. Indeed IDEAL Fence will last. Learn more about it. There is a style for every purpose—and every style the best you can buy. Write us to-day.

Send a Postcard for Catalogue "121" and Sample Lock.

This Lock makes "IDEAL" FENCE

Strongest in Existence

McGREGOR BANWELL FENCE CO., Ltd.
WALKERVILLE, ONTARIO

PLEASE MENTION THE FARMER'S ADVOCATE.

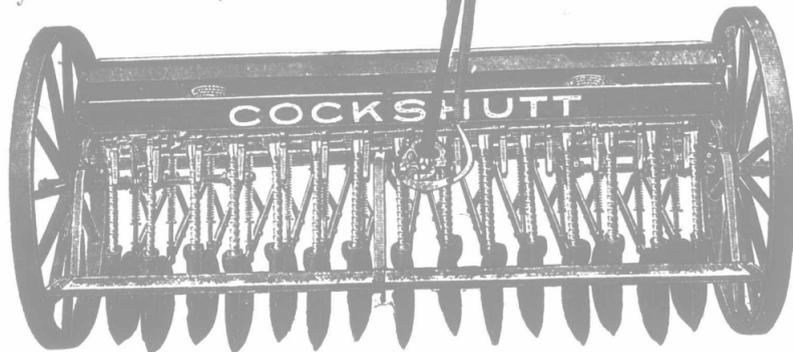
BIGGER CROPS — BETTER GRAIN MORE MONEY

IS THAT WHAT YOU WANT?

LIKE lots of other farmers at this time of the year, you are thinking of buying either a Disc or a Hoe Drill. Read this advertisement carefully before you decide—study the principle of

this Cockshutt Disc Drill—get our Drill booklet and go into this matter thoroughly, because here is a machine that will help you get better crops.

Cockshutt
New
Model



Made
with 13
and 15
Discs

The Lightest Draft Disc Drill

THE particular advantage which the Cockshutt Disc Drill possesses, is that it sows the grain 6 inches apart—not 7 inches as is the usual method. Close seeding gives the grain a better chance to germinate—to sap all the nourishment of the soil. Thus the grain grows up closer and firmer—holds moisture better—resulting in a bigger yield and better grain. Close seeding does not mean that you have to sow more seed—you simply plant the same quantity of seed as you would with old style machines, but you plant with more discs. Farmers who have used this Cockshutt Disc Drill report an increase of from 2 to 5 bushels an acre, in other words this Cockshutt Disc Drill will easily pay for itself in one season and still leave you a nice profit over and above. Read all about the other advantages it has—then write us and get our very instructive booklet about it.

The discs on this machine are 6 inches apart—not 7 inches like old style machines. Footboard runs the whole length of the machine, which makes it optional with the driver whether he walks or rides. Footboard can also be used for carrying seed bag to the field. The frame is built of high carbon steel, the corners being re-inforced by heavy malleable castings and steel corner braces. The castings pressure bar and short self-aligning axles are rivetted to the strong I beam which runs the

whole length of the machine. One of the great advantages of this I beam is that it never allows the machine to sag in the centre. Axles are made of cold rolled shafting, always uniform in size and set at the right angle to give the wheels proper pitch. The self-oiling device keeps the disc bearings in good shape a whole season. The grain flows down the closed boot right into the bottom of the furrow and is always sown at uniform depth. The space between the grain boots and discs gradually widens from bottom to top, preventing mud and trash stopping the discs from revolving. No matter how wet or sticky the soil, these discs will always revolve and cut. Scrapers are provided so as to keep discs clean on each side. The feed on this Cockshutt Disc Drill is a positive force feed of great accuracy and is driven by a short steel chain from the axle, each half of the feed being driven separately. The seed box is made of choice seasoned lumber and the cover locks automatically.

We use metal bridges between feed cups to prevent grain from clogging, so that the last seed is sown out of the box at the same rate per acre as when the grain box is full.

You can't realize all the advantages and improvements of this Drill until you read full explanations in our booklet. Don't buy a Drill of any kind until you read it.

Works Exceptionally Well

Cockshutt Plow Co., Fergus, Ont.
Gentlemen,—The 13 Disc Drill I purchased from your agent, W. J. Shaw, works exceptionally well in all kinds and conditions of soil; it is impossible to clog this Drill in marshy or dry land. It is also lighter in draft than any other drill I have ever used, and I have farmed for over fifty years. I used this drill with a very light team, and sowed over one hundred acres this spring.

Yours truly,

WALTER THOMSON.

Read These Letters—Then Write for Booklet

Cockshutt Plow Co. Ltd.,
Brantford, Ontario

I purchased a Cockshutt 15 Single Disc Drill from your agent, Mr. J. H. Finlay of Collingwood, and I desire to state that I am more than pleased with the work done by it. After giving it a severe trial in lumpy ground, also in wet and sticky soil, I could not clog the drill. I would recommend this drill to all farmers intending to purchase.

(Signed) R. S. BAKER.

[Dairy Farm, Bay View

Cockshutt Plow Co. Ltd.,
Brantford, Ontario

Gentlemen:—

I have very much pleasure in recommending the 15 Single Disc Drill purchased from your agent, W. McMartin of Thorndale. After putting in seventy acres of spring seeding with two horses I think it the best drill I have ever seen, and the easiest to operate. I have not seen its equal, and think it has to be made yet. I cannot say too much for it.

(Signed) JOHN MORDEN.

Thorndale,

COCKSHUTT PLOW CO. **BRANTFORD**
LIMITED