

MANITOBA AND NORTHWEST TERRITORIES.

FARMER'S ADVOCATE

AND HOME MAGAZINE

PERSEVERE SUCCEED

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

Vol. XXXVIII. WINNIPEG, MAN. APRIL 6, 1903. LONDON, ONT. No. 571

BELL

Art
Pianos
and
Organs

Bellolian
Automatic Organs.

BELL
Piano Players

ARE
THE BEST
IN
DESIGN, TONE, FINISH
AND
DURABILITY.

Made by the
BELL ORGAN
AND
PIANO
COMPANY, LIMITED,
GUELPH, ONTARIO.

Send for Catalogue No. 40.

THE ROOF GETS THE
WORST OF IT.

There's no shelter for it. It shelters the rest from the elements.

That's why you need the very best shingles, no matter where else you stink.

Eastlake
SHINGLES

are absolutely fire, lightning, rust and leak proof, and easy to apply.

They've long since been proved the most reliable, perfect and longest-lasting kind you can find. Try them.

MADE BY
Metallic Roofing Co., of Toronto
SOLD BY
Merrick, Anderson & Co.
Bannatyne Ave.
WINNIPEG, MAN.

CONTENTS OF THIS NUMBER.

EDITORIAL.

THE AGRICULTURAL COLLEGE ASSURED .. 343

A WESTERN PUBLICATION .. 343

A SMALL-SOUL'D REGULATION .. 344

THE COST OF BUILDING; PRACTICAL EXPERIENCE .. 344

SIFTINGS; INTER-IMPERIAL POSTAGE .. 345

RAILWAY REGULATION AND THE FARMER .. 345

J. B. HARRINGTON, LACOMBE, ALTA. (PORTRAIT) .. 345

A CHANGE OF FRONT; THE RAILWAY COMMISSION BILL .. 345

BIG FEEDING TEST .. 345

STOCK.—OUR SCOTTISH LETTER .. 345

T. CRAWFORD NORRIS, M. P. P. (PORTRAIT) .. 346

EARLY MANITOBA LAMBS (ILLUSTRATION) .. 346

SHEEP-RAISING IN MANITOBA .. 346

BERNHAM SPRING SHOW AND SALE .. 346

C. P. R. STOCK-YARDS, DENMORE, N.-W. T. (ILLUSTRATION) .. 347

A STOCKMAN VISITS THE OLD SOD; CONDITION OF RANGE STOCK .. 347

MILK FEVER PREVENTION; COMBATING ANIMAL DISEASES .. 348

RANGE STEER EXPERIMENT .. 348

WHAT SHOULD BE TAUGHT AT THE PRESENT-DAY VETERINARY COLLEGE .. 348

A LITTLE GIRL'S CHEAT; WARBLER .. 349

BREAK OF DAY (76217) (ILLUSTRATION) .. 349

HORSES.—THOROUGHBRED MARE AND FOAL (ILLUSTRATION) .. 349

THE HUNTER AND PONY SHOWS .. 349

DIVIDEND (19729) (ILLUSTRATION) .. 349

COLD; PREVENTION AND CURE .. 350

FARM.—HINTS TO BEGINNERS; NAMING THE FARM .. 350

SOIL CULTIVATION; SOIL MOISTURE .. 350

SOIL PROBLEMS DISCUSSED; A MONEY SAVER .. 351

SOIL FERTILITY; RESIDENCE OF D. W. MCCUAIG (ILLUSTRATION) .. 351

A RICH FARMYARD, THE HOME OF JOHN HAWKS, MEDICINE HAT, ALTA. (ILLUSTRATION) .. 351

SPRING CULTIVATION AND SUMMER-FALLOW .. 352

CULTIVATION ON CLAY LOAM .. 352

THE BEST ALL-ROUND PAPER .. 352

TILLAGE; THE LUMBER COMBINE .. 352

ROAD-MAKING CRITICISM; SPRING CULTIVATION .. 352

CONVENIENT AND INEXPENSIVE FARMHOUSE (ILLUSTRATED) .. 353

STONE GRANARIES; THE TELEPHONE IN AUSTRALIA .. 353

THE TELEPHONE AND CRIME; WESTERN EYE GRASS .. 353

CULTIVATION, MOISTURE, MANURE; THE BEST BREED .. 354

GASOLINE ENGINE ENQUIRY; TILLAGE AND MANURE .. 354

INJURY BY WEEDS; WEED SEEDS (ILLUSTRATED) .. 354

GASOLINE ENGINES; TWO STYLES .. 355

DAIRYING.—A LARGE DAIRY FARM; USE MORE MILK .. 355

A NEW MILK RECORD; DEATH OF MRS. JONES .. 356

C. I. DAYKIN, LACOMBE, ALTA. (PORTRAIT) .. 356

APLARY.—BREEDING INTELLIGENCE .. 356

POULTRY.—PREVENTION AND TREATMENT OF PARASITES ON POULTRY .. 356

PRODUCING LAYING STRAINS .. 356

WHAT BREED!; FERTILITY OF EGGS; SELECTION .. 357

R. C. POULTRY HOUSE (ILLUSTRATED) .. 357

TEACHER AND SCHOLAR.—COMMENDS THE SCHOOL DEPARTMENT .. 357

PLEA ON BEHALF OF GIRL PUPILS .. 357

SCHOOL LIBRARIES; MOOSOMIN PUBLIC SCHOOL (ILLUSTRATION) .. 358

EDUCATIONAL DEPARTMENT APPRECIATED; METHODS OF STUDY .. 358

HORTICULTURE AND FORESTRY.—THE OUTLOOK FOR APPLE GROWING; TREES BEAUTIFY THE FARM .. 359

A FRUITING SEEDLING OF "MARTHA" CRAB (ILLUSTRATION) .. 359

QUESTIONS AND ANSWERS.

VETERINARY: NETTLE-RASH OR SURFET—PECULIAR CASE; ASCITES OR ABDOMINAL DROPSY; TAPEWORM IN SHEEP; IRREGULAR STRANGLES; SHOULDER LAMENESS; MARE WITH COUGH; BAD FOOT; WOUNDED FETLOCK; SWAMP FEVER; MAMMITS AND INDURATED UDDER; PARTIAL PARALYSIS AND LAMINITIS; CONTRACTED FOOT; BARBED-WIRE WOUND; ERYTHEMA; CURB, AND CONTRACTED HOOF; ITCHY LEGS; CHOREA IN DOG; BLOODY MILK; NASAL GLEET AND CHRONIC SORE THROAT; PERIODIC OPHTHALMIA; HALF THE UDDER NOT FULLY DEVELOPED; LUMP JAW; FILING HORSE'S TEETH. 359, 360, 361

MISCELLANEOUS: REGISTERING BULL; BARLEY FOR HORSE FEED; GRASS SEED AND FIELD WEEDERS; NORTH OF LAKE MANITOBA; SHEEP DIPS AND WOOL; BRITISH PATENT DEPARTMENT; PIGS ON SHARES; PIPES OR CEMENT TILE FOR IRRIGATION; PREPARING LINSEED FOR CALVES; BURNING STUMPS; EGG PRESERVATIVE; STUBBLE SHEARING; RROME GRASS PASTURE; CRIPPLED PIGS AND VICIOUS STALLION .. 361, 362, 363

FIELD NOTES.—CONTROLLING ELEVATORS; A DOMINION EXHIBITION; EDEN BANK CREAMERY; HACKNEY HORSE SHOW; SHIRE HORSE SHOW IN LONDON; THE CATTLE-GUARDS QUESTION; EXTENSION OF MARKETS DIVISION; AN INDEPENDENT LINE; CALGARY STOCK-YARDS; MEETING OF STOCK BREEDERS' EXECUTIVE; BRANDON FARMERS' INSTITUTE MEETING; THE TRANSPORTATION COMMISSION; SMUT PREVENTIVES; SOUTH BRANDON INSTITUTE MEETING; HARTNEY DISTRICT SEEDING .. 362, 363

MARKETS.—WINNIPEG; MONTREAL; GRAIN ON PASSAGE; CHICAGO; WORLD'S VISIBLE GRAIN SUPPLY; WORLD'S WHEAT SHIPMENTS; BRITISH CATTLE .. 363

HOME MAGAZINE.

THE FAMILY CIRCLE .. 364

INGLE NOOK CHATS .. 365

"A SAFE REFUGE" (ILLUSTRATION) .. 365

THE QUIET HOUR .. 366

THE CHILDREN'S CORNER .. 366

HOLE HEAD, AND "PARSON AND CLERK" (ILLUSTRATION) .. 367

SMUGGLERS' LANE, WITH LAUREL TREES (ILLUSTRATION) .. 367

GOSHIP .. 369, 370, 373, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385

BOOK REVIEW .. 379

TRADE NOTES .. 369, 370, 373, 381, 385

ADVERTISEMENTS .. 337 to 342, 368 to 388

The Best Watch for the Money.

We will sell you a genuine Waltham watch—solid 17-jewel movement in an open-face nickel case for \$11.00, or in a 20-year gold-filled case for \$15.00. A special guarantee goes with each watch. Our repairing department is as efficient as can be. A post card will bring you a mailing box.

D. A. BARNARD, "The Jeweler,"
Brandon, Man.

Official Watch Inspector for the O.P.R. Issued of Marriage Licenses.

To build up the West support its institutions.

THE MANITOBA
FIRE ASSURANCE CO'Y
ESTABLISHED 1886.

Head Office: Winnipeg.

Full Government deposit. Licensed by Territorial Government. Special inducements to Farmers to insure in this Company. Reliable, energetic agents wanted in unrepresented districts.

HON. H. J. MACDONALD, K. C., President.
J. T. GORDON, M. P., Vice-President.
H. H. BECK, Managing Director.

Address all communications to Managing Director, WINNIPEG, MANITOBA.

E. J. C. SMITH,
Agent for Canadian Kodak Co.
Supplies of all Kinds.
Printing and finishing for amateurs.
276 SMITH ST., WINNIPEG.
Send for Catalogue. Established 1892.

R. A. BONNAR,
Barrister, Notary Public,
Conveyancer, Etc.
Office 494½ Main St., Winnipeg, Man.
Special attention to collections. Solicitor for "Farmer's Advocate," Winnipeg. 26-5-01

DR. BARNARDO'S HOMES.
The managers of these institutions invite applications from farmers and others for the boys and youths who are being sent out periodically from their English training-homes. The older boys remain for a period of one year at the Farm Home at Busset, during which time they receive practical instruction in general farm work before being placed in situations. Boys from eleven to thirteen are placed from the distributing homes in Winnipeg. Applications for younger boys should be addressed to the Secretary, 115 Pacific Avenue, Winnipeg, or P.O. Box 206, and for older boys, possessing experience in farm work, to Manager, Dr. Barnardo's Farm Home, Barnardo, Man.

DEERHOUND PUPS
From my celebrated dog, General, and prize-winning bitch, Jess. General stands 33 in. at shoulder, and Jess 31½ in. Apply to
DR. CURRIE, Dominion City, Man.

THIS IS THE BEST FARMER'S PAPER IN WESTERN CANADA
POOR COPY

FOR SALE:
CREAMERY
 OF THE
Yorkton Butter & Cheese Mfg. Ass'n
 with full equipment and in shape for work during the coming season. Good farming country around. For particulars and terms apply to
J. E. PEAKER,
 Yorkton, Assn.

Canadian Lands!

Farming and Ranching Lands for sale

in the best districts on the Calgary & Edmonton Railroad and in the Yorkton, Beaver Hills, Quill Lakes, Prince Albert and Carrot River Districts, and in all parts of Manitoba.

LOANS MADE. INSURANCE EFFECTED.

Companies represented:

Calgary and Edmonton Land Co., Ltd.
 Qu'Appelle, Long Lake & Saskatchewan Land Co., Ltd.
 Western Assurance Co.
 Winnipeg Western Land Corporation, Ltd.
 Ontario & Qu'Appelle Land Co., Ltd.
 Law Union & Crown Insurance Co.
 North of Scotland Canadian Mortgage Co., Ltd.

OSLER, HAMMOND & NANTON,
 LAND DEPARTMENT.
 WINNIPEG, CANADA.

PROVIDE

For those that you will leave behind when you die.

YOUR WILL

is legal if drawn up according to our will-form. Full instructions. No lawyer required. Price, 25c. by mail. Address:

THE FORD STATIONERY CO.-Y.
 WINNIPEG, MAN.

English Flat Coated Retriever Pups
 TWO MONTHS OLD.

By Imp. Winnipeg Carlo } Champion Right-
 (C.K.C. 5229) } away. Tattle.
 Imp. Nita (C.K.C. 5304) } Black Drake. Pharaoh.
 Carlo is a winner of 7 first prizes and 9 specials.
A. H. H. CLARK, 55 Sherbrook Street,
 WINNIPEG, MAN.

20,000
 GREEN

Tamarack Fence Posts

All lengths and sizes. In car-load lots, at Sinnott station, C. P. R. Apply to **JOHN LARSON, St. Owen's P. O., Man.**



McLAUGHLIN CARRIAGES

ARE GOOD CARRIAGES

They are sold by reliable agents and are bought by reliable people, who want the best grade only.

WE BUILD NOTHING ELSE AND GUARANTEE SATISFACTION.

McLaughlin Carriage Co., Ltd.
 OSHAWA, ONTARIO.

READY Our New Clothing Catalogue, the most important money-saving book of the year, is ready for mailing. If you do not obtain a copy, both of us will lose something. Is not a catalogue that supplies business for the largest Retail Clothing Store in Canada—that sells more clothing than any other catalogue in print—that is the ready-reference book and standby of hundreds of Canada's best dressers—that is a clothing store on paper—worth asking for? You are welcome to a copy free if you will write for it. Shall we send you one? This catalogue has but one price. The price printed is the price that goes. It is that price every one of our thousands of customers pay. Write to-day. **FREE!**

Manufacturer and Retailer. **PHILIP JAMIESON,** TORONTO, Ontario.

BLACKLEGOIDS

BEST PREVENTIVE OF BLACKLEG.
 Blacklegoids afford the latest and best method of vaccination against blackleg—simplest, safest, surest. They are always ready for use; no filtering, measuring or mixing is necessary. Accuracy of dosage is always assured, because each Blacklegoid (or pill) is exactly sufficient for one inoculation. Administration with our Blacklegoid Injector is easy. The operation need not consume one minute. Blacklegoids are sold by druggists; ask for them. Our newly printed explanatory folder on the "Cause and Nature of Blackleg" is of interest to stockmen. Write for it; it is free.
PARKE, DAVIS & CO. WALKERVILLE, ONT.
 Eastern Depot: 270 St. Paul St., MONTREAL, QUE.



"BLACKLEGINE"

Pasteur Blackleg Vaccine, Quite Ready for Use.

This is in the form of a cord impregnated with the Vaccine. Each dose is separate and applied with a special needle. The dose is hitched on to a notch in the needle and then inserted under the skin at the shoulder. The needle is provided with a detachable handle. Vaccination with "Blacklegine" is as rapid and easy as taking a stitch. There is no dissolving, or mixing or filtering a powder; no injecting or trouble in measuring doses; **NO EXPENSIVE SYRINGE OUTFIT OR INJECTOR.**



BLACKLEGINE OUTFIT, SHOWING NEEDLE INSERTED IN HANDLE AND DOSE OF VACCINE ATTACHED READY FOR VACCINATING.

PRICES: "SINGLE BLACKLEGINE" (for common stock) No. 1 (ten doses), \$1.50; No. 2 (twenty doses), \$2.50; No. 3 (fifty doses), \$6.00. "DOUBLE BLACKLEGINE" (for choice stock) (first lymph and second lymph, applied at an interval of eight days), \$2.00 per packet of 10 double doses. BLACKLEGINE OUTFIT (handle and two needles), 50 cents.

PASTEUR VACCINE COMPANY,
 158-160 E. Huron St., CHICAGO, ILL.

Canadian Northern RAILWAY.

THROUGH TICKETS

By Rail and Ocean

TO ALL PORTS

At Lowest Rates.

For full information consult any Canadian Northern Railway Agent.

GEO. H. SHAW,
 Traffic Mgr., Winnipeg.

SOMERVILLE

Steam Marble and Granite Works,
 BRANDON.



MONUMENTS, HEADSTONES, MANTELPIECES, CEMETERY FENCING TABLETS, ETC.

ROSSIE AVE., BRANDON, MANITOBA.
 Represented by W. Somerville, M. E. Bushman, F. A. Ferguson, A. McQuig.
 SEE WHEN WRITING REFER TO THIS PAPER.

Excelsior Life

INSURANCE CO.
 Head Office: Toronto, Ont.
 Absolute Protection. Profitable Investment. Agents wanted.

POSITIONS GUARANTEED.

O'SULLIVAN Business College
 Opp. City Hall, Winnipeg

Accounting, Shorthand, Touch-Typewriting, etc., thoroughly taught. One week's trial given. Prospectus and full information free.
E. J. O'Sullivan, C.E., M.A.,
 PRINCIPAL.

Cor. Main and Market Streets, Winnipeg. Branches at Brandon and Portage la Prairie.

IMPROVED POULTRY FENCE LATEST UPON THE MARKET

Fencing and Gates



Buy your fencing and gates direct from the manufacturer. The Oshawa Wire Fence Co., Limited, are the largest manufacturers of different styles of fencing and gates in Canada. Send for Catalogue and Prices.

OSHAWA WIRE FENCE CO., LIM.
 OSHAWA, ONT.

FAIR POSTERS

Lithographed in colors, also Diplomas—special artistic designs that will advertise your Fair in an unusual way at small cost.

The London Printing and Lithographing Co.,
 LONDON, ONT.

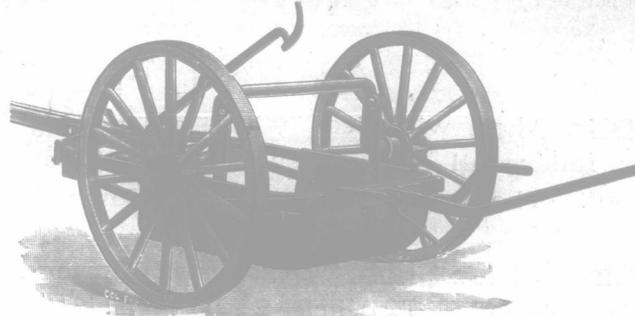
In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE.

Municipalities! Contractors! Dealers!

Make No Mistake in Any of These Goods.



"S. & M." Steel Mould for making Concrete Tile.



Celebrated K. & J. "Columbus" Pressed Bowl Steel Wheelers, Oil-tempered Bowls, Sand-proof Hubs. Sizes, 2 and 3.



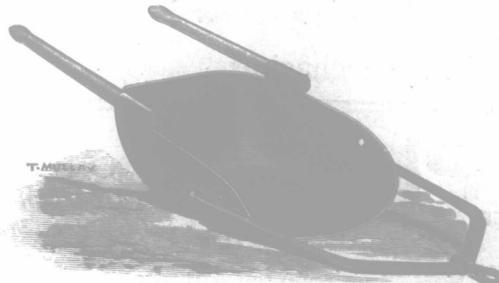
"S. & M." Steel Reversible Road Grader.



"S. & M." Rock Crusher.



"S. & M." Road Plow.



Celebrated K. & J. "Columbus" Pressed Bowl Steel Drags. Sizes, 1, 2 and 3.



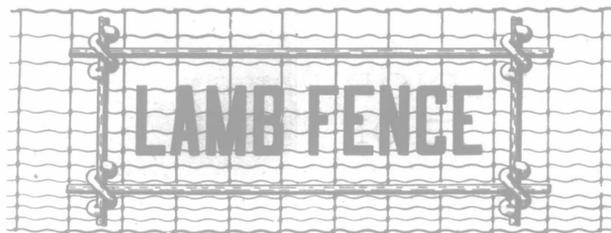
Sectional view of Concrete Tile as manufactured by our Steel Moulds, showing telescopic joint.

WRITE US

For particulars and prices of these and our other lines of Road-making Machinery.

Sawyer & Massey Co., Ltd.
HAMILTON, CANADA.

Massey-Harris Co., Winnipeg
Sole Agents for Manitoba and N.-W. T.



HIGH CARBON STEEL WIRE.
The H. R. LAMB FENCE CO., Ltd., LONDON, ONT.
Fence shipped from our Winnipeg Warehouse.

THE CREAM SEPARATOR QUESTION IN A NUTSHELL.



ALL GOOD CREAM SEPARATORS employ centrifugal force in separating the cream from the milk, the bowl being made to revolve in the neighborhood of 7,000 times per minute. This main feature is common to all. There are a number of other features of more or less importance. Some makes have a little advantage here and others there, but if the machines are well constructed and of good design they will do the work and render satisfactory service.

In our Windsor Separator only the very best grades of Bessemer steel, properly tempered and hardened, and the best Swedish iron are employed. No one can get better materials than these. The bowl revolves at the same speed as in the high-priced machines, and in the minor features the Windsor has advantages over most if not all the others. It is as good a separator as it is possible to produce at any price, and we gladly send it out for a week on FREE TRIAL. Our prices run from 25% to 40% below what others charge. For our smallest size, capacity 115 lbs. milk per hour, we charge \$38.50; for the next size, capacity 210 lbs. milk per hour, our price is \$48.75; etc. Descriptive printed matter sent on application.

WINDSOR SUPPLY COMPANY, Windsor, Ont.

WOVEN WIRE FENCING

MANUFACTURED IN CANADA

The best selling because the most satisfactory.

"American" Field Fences

For horses, cattle, sheep, and hogs. All styles and heights—30 inches to 50 inches high, with stays 12 inches or 6 inches apart.



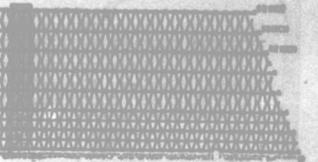
"AMERICAN" FENCE.

"Ellwood" Field, Farm and Lawn Fences.

Six styles. Heights, 18 inches to 26 inches.

If you can't get the celebrated AMERICAN and ELLWOOD fences from your dealer write to us and we will help you.

The CANADIAN STEEL & WIRE CO.
(LIMITED),
HAMILTON, CANADA.



"ELLWOOD" FENCE.

WHY PLANT HARDY ORNAMENTAL SHRUBS?

OUR SPECIAL OFFER.

1 Lilac Josikea; 1 Deutzia Crenata;
1 Honeysuckle Tartarica Rubra;
1 Philadelphia Grandiflorus; 1
Spiraea Thunbergia.

Collection of Hardy Shrubs, as above, one plant of each variety, sent postpaid, on receipt of

50 CENTS.

BECAUSE nothing is more satisfactory because they increase in size and beauty from year to year. Because they impart a picturesque appearance. Because they possess a decorative value never equalled by trees. Because the taller varieties may be trimmed so as to afford ample shade. Because they add a home-like touch not obtainable otherwise.

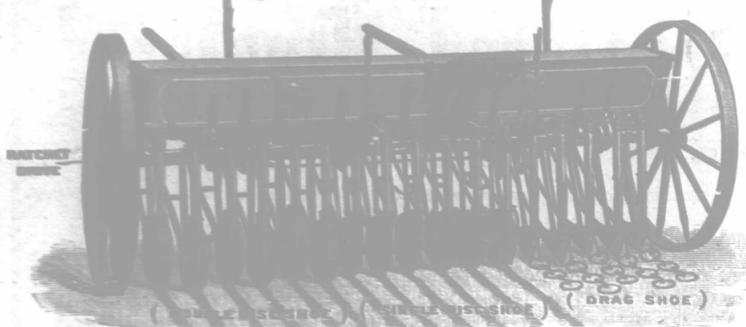
See our catalogue, which contains a splendid list of varieties. Some extra large shrubs offered this year. Catalogue free on application.

Address all communications to

WEBSTER BROS.,
HAMILTON, CANADA.

In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE.

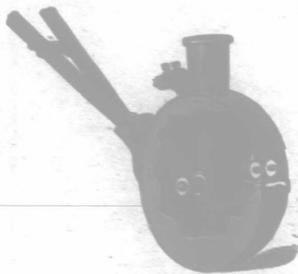
COCKSHUTT SHOE DRILL



For Reliability,
Accuracy and Durability

Cockshutt Shoe and Disc Drills ARE UNEQUALLED

The Cockshutt Double Disc Shoe will clean where others clog. Notice the anti-friction Inside Rollers. They relieve all side pressure of the Disc Blades and insure lightest draft. The Boot carries the seed down directly to the seed-bed.

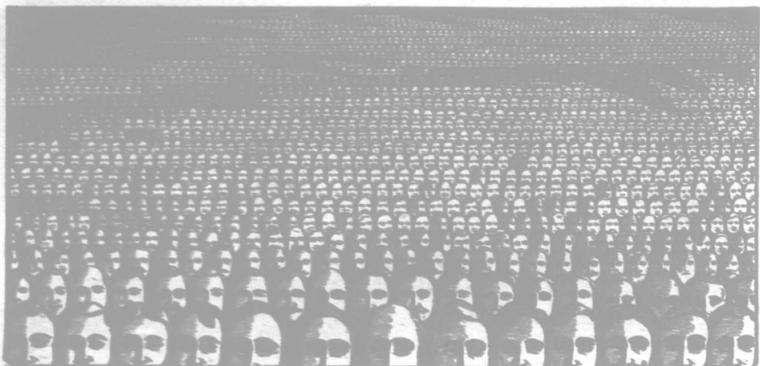


The Single Disc Shoe. Dust-proof Bearings. Latest Improved Scraper Attachment. Polished Steel Plate on the bottom of the Boot, which prevents clogging in sticky soil.

Examine Our Drills Before Purchasing.



Cockshutt Plow Co. LIMITED. Winnipeg, Manitoba FACTORY—BRANTFORD.



AN ARMY OF 15,000 DEERING AGENTS AT YOUR SERVICE

There is no town of importance where you can not secure

DEERING LIGHT DRAFT HARVESTERS

All staunch, reliable machines for the harvest

Binders Headers Header-Binders Mowers Reapers Corn Binders
Corn Shocks Huskers and Shredders Rakes Binder Twine Oil

Call at the nearest Deering Agency and ask for a copy of "The Golden Era." It's a handsome booklet.

Deering Division
International Harvester Co. of
America, Chicago

Just as "DEERING" signifies excellence in the harvester line so does it stand for excellence in seeding and tillage machinery. Here's another "Ideal" line of machines for the farm:

DEERING

DRILLS, CULTIVATORS, SEEDERS, DISC HARROWS,
SMOOTHING HARROWS.

CANADIAN BRANCHES

Deering Division International Harvester Co. of America:

TORONTO, LONDON, MONTREAL, WINNIPEG, REGINA.

FACTORIES: CHICAGO, ILL.; HAMILTON, ONT.

In this issue we want to draw your attention to the following

SUPERIOR
POINTS OF

The Flintkote Folks

Are a firm of bustling people who make

FLINTKOTE ROOFING,

and make it so well that owners, architects, and builders who have used it can't be induced to use any other.

DO YOU WANT MORE INFORMATION?

J. A. & W. BIRD & CO
BOSTON

Flintkote Roofing

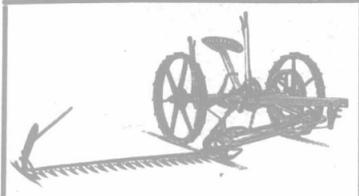
It is not affected by heat or cold.
It is easily laid, and most durable.
The very best made.

Ask your hardware or lumber merchant, or write us for full information and samples.

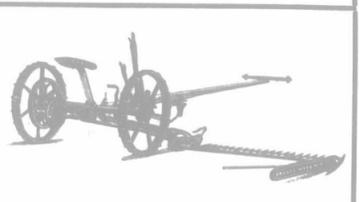
MACKENZIE BROS., - WINNIPEG.

"The Flintkote Folks."

In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE.



Every Farmer grows hay; therefore, needs a Mower, and wants the best he can get. But how can he know the best Mower? All Mowers look very much alike. Appearance, of course, counts for something. The first consideration, however, is not "Finish." Then, what is? Well, what is a Mower for? Why, to cut hay—first, last and all the time. Therefore, the Mower that cuts the most grass, with the least wear and tear on the machine itself; and the lightest draft on the horses, is the best Mower. These points are the principal features of the Frost & Wood New No. 8 Mower. Thousands of Farmers know this. Buy the New No. 8 and you will believe it too. Cuts 4½, 5 and 6 ft. wide.



The FROST & WOOD CO., Ltd.
 HEAD OFFICE AND WORKS:
 SMITH'S FALLS, ONT.
 BRANCH OFFICES:
 TORONTO, ONT. QUEBEC, QUE.
 LONDON, ONT. ST. JOHN, N. B.
 MONTREAL, QUE. TRURO, N. S.
 WINNIPEG, MAN.



E. O'REILLY

GRAIN DEALER WINNIPEG, MAN.

QUOTATIONS furnished ON ALL kinds of GRAIN in CAR LOTS. Prompt adjustments. Correspondence solicited.

REFERENCES: THE MERCHANTS' BANK OF CANADA.

THOMPSON SONS & CO., Ship your grain to a strictly Grain Commission Merchants, Commission House.

Winnipeg, Man.

BANKERS: UNION BANK OF CANADA.

Highest prices obtained. Quick returns. Write for terms and shipping instructions. Please do not wire for track bids.



Musical Instruments, Sheet Music, Music Books

And everything known in music. We have the largest and best selected stock of these lines in Canada to select from. If interested, write for Catalogues. Mention Goods required.

Whaley, Royce & Co. LIMITED.

356 Main Street, Winnipeg, Man.

Improved and Unimproved Farm Lands

All over Eastern Assiniboia, at from \$3.50 to \$40.00 per acre.

J. M. THOMSON, Real Estate, Insurance and Financial Agent. INDIAN HEAD, ASSA.

RENNIE'S SEED

Get something good once, and you'll always after buy the best.

GIANT SUGAR MANGEL.
 Unquestionably the most Profitable Root for Stock Feeding. — Outyielding the famous Mammoth Red Mangel in weight per acre. Valuable either for producing milk or as a flesh former. Handsome, perfect shaped roots of pinkish white color, growing high out of ground. Easy to harvest. The richest and sweetest of all roots.
 Pound 30c.
 5 Pounds \$1.40.
 Add 5c. per pound if wanted by mail.

KANGAROO SWEDE.
 The grandest of all Swedes. Keeps longer than any other sort and produces heavy crops everywhere. Very hardy. Similar in size and growth to the Elephant. Color bronze green. This is the most popular Swede in cultivation. Particularly adapted to districts where the land lies exposed. ½ lb. 12c., ¼ lb. 23c.
 Pound 30c.
 4 Pounds \$1.00.
 Add 5c. per pound if wanted by mail.

TANKARD CREAM (SUGAR BEET).
 A Great Cropper—Fine Shaped Roots—Easily Harvested. Of exceptional value for feeding to Cattle, Horses, Sheep, Hogs and Poultry. Distinct from any other root in cultivation, of uniform Tankard shape, grows almost entirely out of ground. Of highest quality. ½ lb. 20c., ¼ lb. 30c.
 Pound 50c.
 4 Pounds \$1.50.
 Add 5c. per pound if wanted by mail.

SPELTZ.
 Beats Spring Wheat in yield of Grain at Ontario Agricultural College. In Western States it is claimed to yield 80 to 100 bushels of richer food than Corn, besides giving as much as 4 tons of good hay per acre. Speltz is best described as a combination of wheat, rye and barley, and for feeding purposes is equal to other grains. Sow 70 lbs. per acre. 2 lbs. 25c., postpaid. Bushel (40 lbs.) \$1.00. 10 bu. \$9.50 (Bags 18c.)
 Purchaser pays freight

SAND VETCH. (VICIA VILLOSA.)
 Yields 15 Tons Green Forage per acre, equal to 3 or 4 tons when cured as dry hay. Prospers in barren soils and produces wondrous crops in good land. The earliest crop for cutting green we know of. Sown in April is ready to cut in July. Second growth excellent. Sow 65 lbs. per acre. Lb. 20c., 10 lbs. \$1.70, postpaid. 25 lbs. \$2.50. (Bags 100 lbs. \$9.50. 18c.)
 Purchaser pays freight.

PERFECTION MANGEL.
 Mammoth Red. Holds the record for heaviest weight grown. Roots of gigantic size. A single specimen, 60 pounds untrimmed and 700 pounds trimmed. Possesses extraordinary feeding qualities. Very free from fibrous roots and readily cleaned for storing. ½ lb. 10c., ¼ lb. 20c.
 Pound 30c.
 4 Pounds \$1.00.
 Add 5c. per pound if wanted by mail.

RENNIE'S PRIZE SWEDE.
 The Very Best Purple Top Swede. —The result of judicious selection. Flesh sweet and rich. Is Corn, besides the hardest, most productive and most nutritious varieties in cultivation. Excellent keeper. ½ lb. 10c., ¼ lb. 15c.
 Pound 25c.
 4 Pounds 80c.
 Add 5c. per pound if wanted by mail.

DANISH SUGAR BEET.
 The greatest milk producing root the world has ever known. Yields immense crops and roots always nice and clean. Pink and white color, growing considerably above ground. A profitable crop to grow. ½ lb. 10c., ¼ lb. 20c.
 Pound 30c.
 4 Pounds \$1.00.
 Add 5c. per pound if wanted by mail.

NEW POTATO — EARLIEST SIX WEEKS.
 Holds the list in a test of over 35 varieties of earliest potatoes and yielding at the rate of 464 bushels per acre. Unsurpassed in quality by any potato in early stages of growth or unripe condition. Cooks dry and mealy. Lb. 30c., 3 lbs. 75c., postpaid. PECK 70c., BUSHEL \$2.00.
 Purchaser pays freight charges.

MAMMOTH WHITE CARROT.
 Heaviest Cropping Carrot ever known. Roots are extra large, half long, smooth and regularly tapering to a point. Flesh is solid, crisp and of a pearly white color. Very sweet. Easily harvested. ½ lb. 15c., ¼ lb. 30c.
 Pound 50c.
 Add 5c. per pound if wanted by mail.

NEW CORN. NORTHERN PROLIFIC.
 Ripens in 90 days and yields surprisingly large quantities of corn on such small cobs. Beautiful rich golden colored grain. The most profitable Corn to plant whether for grain or for ensilage. Lb. 20c., 3 lbs. 50c., postpaid. PECK 50c., BUSHEL \$1.60 (Bags 18c.)
 Purchaser pays freight charges.

TUBEROUS BEGONIAS.
 PRIZE BULBS.
 4 Single 50c
 6 2 Double 50c
 Scarlet, White, Yellow, Rose. By Mail, Postpaid.
 5 DAHLIAS 25c
 5 CANNAS 25c
 1 Double Dahlia, 3 Single Dahlia, 3 grandest and richest colored large flowering Cannas, all different.
 The 5 for 25c.
 (Bulbs and shoots ready April 15. Order to-day.)

SOLD BY LEADING MERCHANTS IN SEALED PACKAGES—NEVER IN BULK.
 OR DIRECT FROM **WM. RENNIE, TORONTO,** ADELAIDE AND JARVIS STREETS.

PUMPS

MANITOBA PUMPS
CHALLENGE COMPETITION.

We are prepared to stand our pumps in any well alongside of any other pump and let the purchaser judge and buy them on their merits.

Specialty Adapted for Cold Countries.

Insist on getting a "Manitoba Pump" and take no other. Agents wanted. Send for Catalogue.

THE MANITOBA PUMP CO'Y,
BOX 301. BRANDON, MAN.

The Canadian Farmers' Help Society

OF BRANDON

EXPECT ABOUT

200 MEN

TO ARRIVE

FROM ENGLAND

ABOUT MARCH 20.

These men are both experienced and inexperienced, and any kind of man can be supplied on that date to the farmers of Manitoba. SECURE YOUR MEN FOR THE SUMMER through this Society by applying to the Secretary. No fees required.

E. B. TOWNSEND,
HARTNEY, MANITOBA

The great and growing WEST requires stalwart men and women.

COWAN'S

PERFECTION

COCOA

(MAPLE LEAF LABEL)

Will give brain and bone and muscle and health to everyone who uses it.

Sold by all Grocers.

Be sure and get the Maple Leaf Label. It is our trademark.

THE PRIVATE SECRETARY.

A Unique Combination

Ready reckoner. (ACCOUNT BOOK.) File for receipts, conveyancer, cheques, notes, calendar for six years, etc., without folding. Indelible pencil. Thumb indexed. Turn up any part in an instant. Pocket size. Price, \$1.00. Five copies to agents, \$3.00. Agents wanted. R. N. LYONS, GRISWOLD, MANITOBA.

SEED OATS.

"Winners of Medal and Grand Prize Diploma at Paris Exposition of 1900, and World's Fair, Glasgow, 1901." The undersigned has a quantity of this New American Lincoln Oat for sale, for which he was awarded the above prizes at the Paris and Glasgow World's Fairs; price, 50c. per bush., f. o. b. at Manitou; sacks extra. This is a white oat with light hull, heavy meat, and soft nib; stands up remarkably well, and, so far, free from rust and smut. It is an early variety and immense yielder. Address, J. E. GAYTON, Manitou.—Advt.

THE T. EATON CO. LIMITED

RELIABLE SEEDS

Our Garden Seeds have been selected from one of the best growers we know. Being particularly adapted to our Canadian climate, we can recommend them to our friends all over Canada.

COLLECTION A—SPECIAL
32 PACKETS SEEDS POSTPAID FOR 50c
Your own selections from these lists

Vegetable Seeds

Beans

Keeney's Rustless (yellow pod)
Earliest Six Weeks (green pod)
Giant Flageolet Wax (yellow pod)
Wardell's Kidney Wax (yellow pod)
Valentine (green pod)

Beets

Early Eclipse (round)
Ornison Globe (round)
Dark Flat Egyptian (flat round)
Detroit Dark Red (round)
New Intermediate (half long)
Long Smooth Blood (long)

Cabbage

Early Winningstadt (pointed head)
All Seasons (flat head)
Autumn King (flat head)
Early Jersey Wakefield (pointed head)
Mammoth Red Rock (flat head)
Premium Flat Dutch
Savoy Drummond

Carrots

Early Scarlet English Horn
Danvers Half Long (7 inches long)
Guernsey or Oxheart (5 inches long)
Chantenay Half Long (6 inches long)
Long Red (12 inches long)

Cauliflower

Early Snowball
Extra Early Paris

Celery

White Plume, self-blanching (very early)
Golden, self-blanching
Carter's Crimson (red) Golden Heart

Corn

First of all (ears 5 inches long)
Stowell's Evergreen (ears 10-in. long)
Early Cory (ears 5 inches long)
Extra Early Minnesota (ears 7-in. long)
Mammoth Sweet (ears 10-in. long)
Country Gentleman (ears 8-in. long)

Citron Cress

Preserving Curled

Cucumber

Chicago Pickling (3 inches long)
Improved White Spine (5 inches long)
Improved Long Green (8 inches long)
Giant Pera (long) Cool & Crisp (short)

Lettuce

Early Curled Simpson Drumhead
Nonpareil Cabbage Big Boston
Golden Butterhead Prize Head

Musk-Melon

Early Hackensack (green flesh)
Paul Rose (red flesh)
Emerald Green (red flesh)
Montreal Improved Nutmeg (green flesh)

Onions

Large Red Westerfield
Giant Prizetaker
Yellow Globe Danvers
Silverskin or Pickling Silver King
Australian Brown (very early)

Parsley Parsnips

Moss Curled Hollow Crown
Guernsey Half Long

Peas

First and Best McLean's Little Gem
Premium Gem (early)
American Wonder (very early)
Pride of the Market
Horsford's Market Garden

Pepper Pumpkin

Ruby King Long Cheese
Long Red Sweet or Sugar

Raddish

Long Scarlet Short Top Rosy Gem
French Breakfast Paris Beauty
Lady Finger China Rose

Salsify

Mammoth Sandwich Island

Spinach

Long Standing Victoria Bloomsdale

Squash

English Vegetable Marrow Hubbard
Orange Marrow Red Hubbard
Summer Crookneck Bush Marrow

Summer Savory

Sage—broad leaved

Turnip

Early Snowball Purple Top Swede
Early Six Weeks Golden Ball

Tomato

Livingston's Perfection Early Ruby
Tree Imperial Enormous
Mikado New Peach

Watermelon

Earliest of All Dixie Ice Cream
Wonderful Sugar

Flower Seeds

Antirrhinum, Snap Dragon
Ageratum, mixed

Aster, Snowball, white
Aster, Chrysanthemum
Aster, Fireball, crimson
Aster, Excelsior Mixture
Aster, Branching
Bachelor's Button Ball-oon Vine
Balsam, large flowered, mixed
Canary Bird Vine
Canna, large flowering Calendula
Candytuft, snow white
Candytuft, mixed Calliopsis
Canterbury Bells Carnation
Centaurus Columbine Clarkia
Climbers, mixed Chrysanthemum
Cockscombs Cypress Vine
California Poppy
Dianthus, Imperial Pinks
Dianthus, Chinese Pinks, mixed
Double Daisy Dusty Miller
Evening Primrose Everlastings
Forget-Me-Not Four o'Clock
Godetia Gounia Heliotrope
Hollyhock double, mixed Ice Plant
Lobelia, mixed Larkspur, tall, mixed
Marigold Musk Plant
Morning Glory, mixed
Mignonette, Sweet
Nasturtium, Tall, mixed
Nasturtium, Dwarf, mixed
Nasturtium, Madam Gunther's Hybrids
Nigella, Love-in-a-Mist
Pansy, Snow queen, white
Pansy, Faust, black
Pansy, Sweet Scented
Pansy, Giant Tricolor, mixed
Petunia, Grandiflora, mixed
Petunia, Fringed, mixed
Phlox, Drummond Fringed, mixed
Phlox, Giant, mixed
Poppy, Double, mixed Poppy, Shirley
Sunflower, Tall Sunflower, Dwarf
Ricinus, Castor Oil Bean Salvia
Scarlet Runner Beans Sensitive Plant
Sweet Peas, English, mixed
Sweet William Tassel Flower
Verbenas, mixed
Verbena, Curled and Crested
Wallflower
Wild Flower, Garden, mixed
Zinnia, Double, mixed

Named Varieties, Sweet Peas

1 oz. Packets 8c each or 3 for 20c Post Paid

Aurora	Blanche Ferry
Blanche Burpee	Coquette
Capitulation	Countess of Cadogan
Countess of Radnor	Gray Friar
Emily Henderson	Little Eckford
Lady Mary Currie	Mrs. Dugdale
Lovely	Navy Blue
Mrs. Eckford	Prince of Wales
Prima Donna	Senator
Royal Rose	Salopian
Stella Morse	Double Sweet Peas
Venus	Dwarf Cupid, mixed

Flower and Vegetable Seeds 2c per Packet, Postpaid

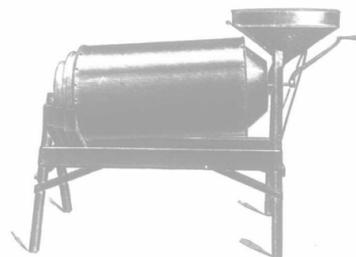
For 25c 15 Packets Vegetable Seeds. Your own selection from above general list of Vegetables.	COLLECTION B	For 25c 16 Packets Flower Seeds. Your own selection from above general list of Flowers.	COLLECTION C
--	--------------	--	--------------

Mail Orders Filled Promptly. All Packet Seeds Postpaid
NOTE—Seed Orders should reach us before May 15th, as we do not keep up stock after that date

THE T. EATON CO. LIMITED
190 YONGE STREET TORONTO, CANADA

BEEMAN'S New Process Grain Cleaners

They separate flax from wheat, wild or tame oats from wheat or barley, cockle and all foul seed; clean flax, timothy, clover, etc., perfectly.



DO YOU

If so, our JUMBO Will do it for you.

Want to raise your wheat from one to three grades by separating all frosted, sprouted or shrunken kernels?

Want to clean and bluestone your wheat at one operation?

Want to sack your clean grain, tailings and screenings all at the same time?

Write for catalogue and prices. Dealers make money selling our machines.

Factories: Winnipeg, Man. Minneapolis, Minn.
BEEMAN & CO'Y,
131 Higgins Ave., Winnipeg, Man. 2902 Pleasant Ave., Minneapolis, Minn.

You Must Get the Book.

You who are sick and are waiting—you must get my book.

Must, if you hope to get well, for I know that these diseases, when chronic, are seldom cured in common ways.

Must is a strong word, but it's true. You will know soon or late that a permanent cure demands my help.

I will mail you an order—good at any drug store—for six bottles Dr. Shoop's Restorative. You may take it a month on trial. If it succeeds, the cost is \$5.50. If it fails, I will pay the druggist myself—and your mere word shall decide it.

No other physician ever made such an offer. No other remedy could stand such a test. For your own sake, don't neglect it, when you risk not a penny, and success means health.

I have spent a lifetime in learning how to strengthen weak inside nerves. My Restorative brings back that power which alone operates the vital organs. I treat a weak organ as I would a weak engine, by giving it the power to work. My way always succeeds, save when a cause like cancer makes a cure impossible. And most of these chronic diseases cannot be cured without it.

You'll know this when you read my book.

Simply state which book you want, and address Dr. Shoop, Box 52, Racine, Wis.

Book No. 1 on Dropsy. Book No. 2 on the Heart. Book No. 3 on the Kidneys. Book No. 4 for Women. Book No. 5 for Men (sealed). Book No. 6 on Rheumatism.

Mild cases, not chronic, are often cured by one or two bottles. At all druggists.

Milk Fever.

The cause of milk fever seems difficult to determine, but we know that if a cow is on good pasture at the time of calving, as nature intended she should be, there will be no clogging of the system and no milk fever. Hence, the true way to prevent milk fever is to make the conditions as near like nature's conditions as possible.

Giving purgatives, carboic acid or any drastic drug is not according to nature's plan, and, therefore, is likely to be injurious. Give the cow something to replace the qualities that have passed from her winter food in the drying process, and you are working on nature's lines, and these are the lines the Beaver Mfg. Co. had in view when they began the manufacture of Herbageum, and by feeding Herbageum nature is so closely followed that natural results are obtained and there is absolutely no possibility of milk fever.

In this connection, Mr. Alfred A. Taylor, a prominent farmer of Margaree Harbor, N. S., writes: "Herbageum prevents all scouring with cattle, and keeps them regular at all times. It is of great advantage to feed it both before and after coming in, as it cannot be excelled as a preventive of milk fever, and it is a positive cure for bloody milk."

Mr. G. J. Fockler, of Ringwood, Ont., sends in a long report on the advantages of feeding Herbageum, and we give that part of it only which touches on the subject of milk fever. We quote as follows: "Herbageum is good for cows previous to coming in as well as after, and is a preventive of milk fever. We have had good results from it when troubled with bloody milk. It is a good general regulator, preventing both scouring and constipation, and it is a very great saver of feed."

Messrs. Wm. Stewart & Sons, of the Menie Stock Farm, Menie, Ont., who are noted breeders of Ayrshires, say: "In thirteen years' use of Herbageum for our Ayrshire herd we have had continuous satisfaction. We find it a great safeguard against milk fever, and consider it the finest known preparation for purifying the blood and putting and keeping the whole system in perfect working order, ensuring much better returns in milk while sustaining the animal in flesh."

CHAS. R. DUXBURY, REAL ESTATE AGENT. ELKHORN, MAN. Improved and unimproved farms for sale. Settlers located.

FARMER'S ADVOCATE

AND HOME MAGAZINE

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

REGISTERED IN ACCORDANCE WITH THE COPYRIGHT ACT OF 1875.

VOL. XXXVIII.

WINNIPEG, MAN., AND LONDON, ONT., APRIL 6, 1903.

No. 571

Editorial.

The Agricultural College Assured.

During the fourth session of the tenth Legislature of Manitoba, which closed a few weeks ago, the Agricultural College Commission, appointed early in 1902, presented their report, and acting upon it the Government introduced and had passed a bill authorizing the erection and equipping of an Agricultural College within the Province.

It was significant that when the bill came before the House, and the wisdom of spending seventy or one hundred thousand dollars in the interests of agricultural education was being discussed, the great political parties of the Province were practically a unit. Inasmuch as commendation may be, therefore, deserved by our legislators for their unanimity on this question, it is doubtful if the bill as passed received the consideration which its importance merited. It would appear that very few members on either side of the House had taken the trouble to become thoroughly acquainted with the requirements of the country as regards education along agricultural lines. If they had, however, their ideas were, for the time being, suppressed and the bill as prepared allowed to pass without specific elaboration.

The first and most important clause, given herewith, describes the aims, objects, and to some extent the course of study, of the new institution:

"There shall be established in the Province of Manitoba, at such place as the Lieutenant-Governor-in-Council may decide, a school, to be called 'The Agricultural College of Manitoba,' for instruction in the theory and practice of agriculture, horticulture, forestry; the characteristics, care, breeding and management of farm animals; butter and cheese making; domestic science; the principles, construction and use of varieties of buildings, fences, drainage systems, and other permanent improvements; machinery, implements, tools, instruments and appliances necessary or desirable on a farm; the elements of various sciences applicable to the above subjects; such English and mathematical branches as may be requisite for success on a farm; and in such other subjects as will promote a knowledge of the theory and practice of the pursuits and subjects above referred to, or add to the general efficiency and usefulness of the college."

Although the "Farmer's Advocate" does not wish to be understood as offering any serious objection to the character of the college as proposed, because the recommendations of the commission were substantially the same as those first outlined in these columns more than two years ago, yet we believe that a few points in that report are deserving of consideration.

In the duties as outlined for the different Professors, it is noticeable that the Professor of Dairying, according to the finding of the Commission, should have charge of the dairy stock, although there is to be another Professor, whose charge will be the field of animal husbandry. From our knowledge of the duties required to be performed by the men occupying each of these positions, we believe it would be one of the greatest mistakes the management could make to require the Professor of Dairy Husbandry to pay any attention to dairy stock. If such were done, the Professor of Animal Husbandry would really become Professor of Beef Husbandry, rather than chief of the broader field which his title would indicate. Moreover, when the truth is known from within the inner circles of institutions where such an arrangement has existed, it is certain that nothing has been the cause of more

strife among members of the college faculty. It is noticeable, too, that the most illustrious dairymen to-day upon the continent do not touch live stock. The Chief of the Department at both Iowa and Wisconsin might be mentioned in this connection. Who for a moment believes that Babcock and Farrington would have won the worthy reputation which they enjoy had part of their time been spent in studying and lecturing upon the dairy form and characteristics of cattle.

In regard to the courses to be given by the college, the Commission have reported in favor of a four-year course, leading to the degree of Bachelor of the Science of Agriculture (B.S.A.), in addition to a course of two years, and a shorter one consisting of a few weeks during winter. On this question we have in the past taken the stand that conditions in this country did not justify the arrangement of such an extended course. Our Province is comparatively young, and the money to be spent, we believe, should for a few years at least go in such a way as will give the most practical results and be popular with the farming classes. If, however, those who manipulate the wheels of legislation feel that the necessary expense to provide a four-year course in agriculture may wisely be undertaken at the present time, why, no serious objection should be offered by farmers.

As to who shall manage the college, clause two reads as follows:

"The government of the college shall be under a board of ten directors, of whom the Minister of Agriculture and Immigration shall be one (ex officio), and of whom three shall be appointed by the Lieutenant-Governor-in-Council, two by the council or governing body of the University of Manitoba, and four shall be selected by the farmers, residing in as many divisions of the Province, by means of delegates chosen for that purpose, in a manner to be prescribed by the Lieutenant-Governor-in-Council. Any vacancies occurring on the board, by expiration of time, death, or residence out of the Province, of any of the appointed or selected members of the board, shall be filled by the persons or body who appointed or selected the person whose position has thus become vacant."

Without criticising the personnel of this board, and the manner in which the majority of its members are to be elected, both of which have objections, we pass to their duties, and there we find among other things, they are to be empowered with the authority to regulate the course of study in each branch in which instruction is given. That any council of men so elected, holding office for three years, should have such absolute control of the studies is undesirable. Such an arrangement would leave the President of the institution and his staff occupying positions of servility beneath the dignity that should characterize their office. Not that we believe any college staff should be empowered to decide as to what they are to teach, but they should at least have some substantial influence in its direction; and where the right man occupies the presidential chair, there should be no one in as good a position to say what should or should not be given as instruction to the sons and daughters of the farm. Primarily, the success or otherwise of the institution will depend upon the man at the head of it, and his staff and the former should be invested with ample powers.

Space will not at this time permit a fuller discussion of the bill nor the Commissioners' report upon which it was constructed. The whole question is now before the people of Manitoba; the necessary legislation has been enacted, and those interested will anxiously await the announcement as to where the institution will be located, and who is to be its leading light as President.

A Western Publication.

According to enquiries which have been received at this office during the last few months, it is quite evident that a number of farmers and stockmen have been induced to believe that there is only one edition of the "Farmer's Advocate" published in Canada, and that subscribers in Ontario, Quebec and the Maritime Provinces read the very same articles as those of Manitoba and the West. When our attention was first drawn to the fact that designing persons were making this misrepresentation, we were inclined to look lightly upon the matter, believing that such fairy tales would deceive nobody. Of late, however, several prominent and intelligent readers have assured us that the distinctly Western character of our editorials and letters from contributors have not been sufficient to convince everyone in their district that the "Farmer's Advocate," whose offices are located in Winnipeg, and have been for years, was not an Eastern periodical. For the benefit of any who may not be clear on this question, we wish to state once and for all that there are positively two distinct publications, both owned and controlled by the Wm. Weld Company, Limited. The Eastern edition, with offices in London, Ont., is published on the 1st and 15th of each month, and the Western edition, with offices in the Imperial Bank Block, corner Main Street and Bannantyne Ave., Winnipeg, is published on the 5th and 20th of each month. It should be sufficient for any one to know that no single publication could successfully meet the needs of agriculture in Eastern and Western Canada at the same time. Perhaps in no country in the world are conditions as to soil, cultivation, and the practice of agriculture generally, more different than in the Provinces of Ontario and Manitoba. There may have been a time when the pioneer farmers of Western Canada were satisfied in reading a certain amount of Eastern agricultural topics, but that day has practically gone by. Manitoba and the Northwest Territories during the last few years have shown to the world that their fertile plains, when cultivated according to a system peculiar only to prairie conditions, were capable of being designated the "Granary of the Empire." Such a country is, hence, deserving of the very best agricultural literature to be published. At present wheat is king, and will be for years to come, but stock-raising is a strong and worthy accompaniment; and dairying, poultry-raising and horticulture, including forestry, the public school and the home, must each receive due attention. Realizing the importance, therefore, to a young country already well-grown, but strong in possibilities, of publishing the best possible articles on each of the above subjects, the "Farmer's Advocate," Winnipeg, with its fully equipped editorial and contributing staff, is determined more than ever to place regularly before its readers such information as no intelligent Western farmer can afford to do without. With access to the experience of the oldest and most successful men from the eastern boundary of Manitoba to the foothills of the Rockies; with the researches of our two grand experimental farms at our disposal, and with every facility for getting out an up-to-date paper in the interests of the Western farmer, we can safely rely on the good judgment of our readers. The numerous letters of appreciation constantly being received is ample testimony that thousands enjoy its columns, and it is to be hoped that no sane person will allow himself to be deluded by persons whose reliance in the truth is evidently of a very limited character.

THE FARMER'S ADVOCATE AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN MANITOBA
AND N.-W. T.

PUBLISHED SEMI-MONTHLY BY
THE WILLIAM WELD COMPANY (LIMITED).

WESTERN OFFICE:
IMPERIAL BANK BLOCK, CORNER BARNATTY AVE. AND MAIN ST.,
WINNIPEG, MANITOBA.

EASTERN OFFICE:
CARLING STREET, LONDON, ONT.

LONDON (ENGLAND) OFFICE:
W. W. CHAPMAN, Agent, Mowbray House, Norfolk street,
London, W. C., England.

1. THE FARMER'S ADVOCATE is published on the fifth and twentieth of each month. It is impartial and independent of all cliques or parties, handsomely illustrated with original engravings, and furnishes the most profitable, practical and reliable information for farmers, dairymen, gardeners, and stockmen, of any publication in Canada.
2. TERMS OF SUBSCRIPTION.—In Canada, U. S. States, England, Ireland and Scotland, \$1 per year in advance. All other countries, 8s.
3. ADVERTISING RATES—Single insertion, 10 cents per line, agate. Contract rates furnished on application.
4. THE ADVOCATE is sent to subscribers until an explicit order is received for its discontinuance. All payments of arrearages must be made as required by law.
5. THE LAW IS, that all subscribers to newspapers are held responsible until all arrearages are paid and their paper ordered to be discontinued.
6. REMITTANCES should be made direct to this office, either by Money Order or Registered Letter, which will be at our risk. When made otherwise we will not be responsible.
7. THE DATE ON YOUR LABEL shows to what time your subscription is paid.
8. ANONYMOUS communications will receive no attention.
9. LETTERS intended for publication should be written on one side of the paper only.
10. WE INVITE FARMERS to write us on any agricultural topic. We are always pleased to receive practical articles. For such as we consider valuable we will pay ten cents per inch printed matter. Criticisms of Articles, Suggestions How to Improve the Advocate, Descriptions of New Grains, Roots or Vegetables not generally known, Particulars of Experiments Tried, or Improved Methods of Cultivation, are each and all welcome. Contributions sent us must not be furnished other papers until after they have appeared in our columns. Rejected matter will be returned on receipt of postage.
11. ALL COMMUNICATIONS in reference to any matter connected with this paper should be addressed as below, and not to any individual connected with the paper.

Address—THE FARMER'S ADVOCATE, or
THE WILLIAM WELD COMPANY (LIMITED),
WINNIPEG, MANITOBA.

A Small-souled Regulation.

The amended act admitting pure-bred animals duty free when imported for breeding purposes, shows that Congress has limited this privilege to citizens of the United States. Any "alien" who may hereafter send over for sale pedigreed animals for breeding purposes must pay duty. The full text of the amended paragraph follows:

"Any animal imported by a citizen of the United States specially for breeding purposes shall be admitted free, whether intended to be so used by the importer himself or for sale for such purpose: Provided, that no such animal shall be admitted free unless pure-bred of a recognized breed, and duly registered in the books of record established for that breed: And provided further, that certificate of such record and of the pedigree of such animal shall be produced and submitted to the customs officer, duly authenticated by the proper custodian of such book of record, together with the affidavit of the owner, agent or importer that such animal is the identical animal described in said certificate of record and pedigree: And provided further, that the Secretary of Agriculture shall determine and certify to the Secretary of the Treasury what are recognized breeds and pure-bred animals under the provisions of this paragraph. The Secretary of the Treasury may prescribe such additional regulations as may be required for the strict enforcement of this provision. Cattle, horses, sheep or other domestic animals straying across the boundary line into any foreign country, or driven across such boundary line by the owner for temporary pasturage purposes only, together with their offspring, may be brought back to the United States within six months free of duty, under regulations to be prescribed by the Secretary of the Treasury: And provided further, that the provisions of this Act shall apply to all such animals as have been imported and are in quarantine, or otherwise in the custody of customs or other officers of the United States, at the date of the passage of this Act."

How would American horsemen, who are doing such a thriving trade in Canada, relish the imposition of similar narrow-gauge regulations by Canada? The law makers of the Dominion do not seem to be built on such small-souled lines.

The Cost of Building.

The cost of purchasing the requisite material for the construction of buildings, is a serious problem confronting the majority of farmers in Manitoba and the Territories at the present time. To the new settler, a certain amount of building is necessary, and in a prairie country, where lumber has to be imported, the financial outlay becomes no unimportant matter. With those, also, who have become well established in the country, and have reaped the reward of several bountiful harvests, there are stables and dwellings to be erected, such as will make the home, both in comfort and appearance, in keeping with the prosperity which its owner has enjoyed. Within the last few months, enquiries have been received at this office asking for information regarding the comparative cost of log, stone, cement and frame buildings. Owing to the diversity of conditions prevailing in different localities, these have been difficult to answer, for no doubt there are places where any one of the four materials mentioned might constitute the main portion of a building and be constructed cheaper than if any of the other three were used. Where logs of reasonable size can be obtained, stables and dwellings may be built by the pioneer that will give good satisfaction for many years, at a cost much less than if lumber were used for the walls. The value of cement as a building material is beginning to be better known and appreciated, and where gravel can be conveniently had, and the cement itself procured for what it is worth, there is, perhaps, no cheaper material for the walls of a substantial dwelling, or the walls and floors of stables. Stone, also, makes a very fair wall for stables, but for dwelling houses it collects too much dampness, unless there is a frame inside, with lath and plaster, forming a hollow wall. In few localities, too, is stone plentiful, and the cost of putting up the wall is considerable.

Under conditions most generally prevailing, no material is more useful or necessary than lumber, but the increase in prices of most grades for sale in Manitoba and the Territories, and the comparative impossibility of securing a supply at any price in many districts, makes the question of building a grave one. Indications point to the existence of a lumber combine. The Winnipeg City Council, a short time ago, took the matter up, and have been holding an investigation to ascertain the real condition of affairs. It has been claimed that the Western Lumbermen's Association was formed for the very purpose of making arbitrary regulations in regard to the sale of lumber. It is also said, and there appears to be considerable proof forthcoming, that this combination have not only undertaken to set prices and say how much lumber was to be handled at each point, but have even refused to deal with any lumber merchant outside of the combination. There is not a farmer in Manitoba or the Northwest Territories who is not suffering more or less by the present extravagant prices on building material of all kinds, and if it is possible to prove that an organization so unlawfully exists, the sooner its promoters can be dealt with the better. The Grain-growers' Associations, with that spirit of business enterprise which farmers everywhere should cultivate, have already let themselves be heard, and a petition will go before the Federal Parliament during the present session, praying for an investigation as to the cause of the present high prices of lumber. Meanwhile, those who must build, will do well to consider carefully not only the most economical material for their particular purpose, but also the plan of each building that will give the greatest advantages for the smallest outlay.

Practical Experience.

We desire to call special attention to the articles on soil cultivation, giving the practical experience of prosperous farmers in different districts. To those who have been farming in this country for years, as well as the newcomer, the methods practiced by men who are in a position to give advice should be of value. The season for field work is now on; the rush will have soon begun, but the farmer who combines intellect with muscle, carefully considering soil conditions, and the most profitable cultivation for each crop, will have reason to rejoice for so doing.

Siftings.

As a minimizer of grocery bills, few things can equal the garden. * * *

The sowing of the farmer largely determines what the world shall eat. * * *

Now is the time to fulfill your tree-planting vow. See to it at once; you will never regret it. * * *

"A discontent with existing conditions is the chief source of the desire to improve them, and this desire is the mainspring of progress."—Lecky. * * *

Food until digested and assimilated is of no value to the partaker. Cultivate the habit of retaining, or, in other words, digesting, what you read in the "Farmer's Advocate." * * *

The garden plot adds more to the comfort and health of the farmer and his kin than any other portion of like area which he owns. If you have not already made provision, attend to it at once. Now is the time. * * *

Encourage the boys to devote their leisure time in making wheelbarrows, wire winders, etc. This will create, or at least strengthen, in them a taste for repairing or manufacturing many necessary contrivances on the farm, which will prove helpful for life. Portions of superannuated farm implements and other material of little value can often be utilized to advantage in this way. * * *

A little extra preparation on that field now may seem wasted time, but remember a finer tilth fits the soil for retaining more moisture, which will be given to the crop at a later period, when much needed, and thus increase the productivity of the field far in advance of the extra labor. * * *

That the horse is the farmer's best friend will scarcely be disputed at this season. Treat him as such; see that his harness fits; that he is watered and fed regularly, and when his day's work is over, that he has as good an opportunity of resting in comfort as can well be given him. It will all be returned with interest to the considerate owner. * * *

All stockmen who are not in the habit of growing roots should this year break away from former methods and make provision for treating their stock next winter to that succulent, appetizing flesh-former, the carrot, mangel or turnip, as the case may be. Try a corner of last year's summer-fallow, if such can be had, and we predict that you will continue in the good work as regularly as each spring-time comes.

Inter-Imperial Postage.

The announcement made in the last issue of the "Farmer's Advocate," that Sir Wm. Mulock had succeeded in his effort to reduce the postage on Canadian periodicals going to Great Britain, has been well received by the country, and should do much to further the relations of Canada in the Old Land, as was the result of the two-cent letter rate, another of the Canadian Postmaster-General's achievements. Our readers will do well to bear in mind that they can now send papers to their friends in the Old Country at the same rate as from point to point in Canada. This privilege should be taken advantage of by those who wish to send either single copies of the "Farmer's Advocate," or the paper for a whole year, to friends across the sea. It will now, more than ever, be a good missionary abroad for Canada. We regret to say, however, that thus far the Imperial authorities have declined to reduce the postage on British periodicals coming to Canada. As to the rate of postage on papers to Australia, New Zealand, and other portions of the Empire, Sir Wm. Mulock has been conducting negotiations with the various Governments concerned in order to make a similar reduction as on periodicals to Great Britain, and may be relied upon to continue his efforts in that direction until successful. The establishment of free rural mail delivery in Canada is another reform which should be inaugurated at the earliest possible date.

Railway Regulation and the Farmer.

To the Editor "Farmer's Advocate":

Sir,—In your Feb. 20th number appears an article on this subject by S. J. McLean, of Leland Stanford University, California, which to the ordinary farmer contains several extraordinary statements. He tells us that costs and distance fail to determine a rate, and that there are other essential factors. What are they—Watered stocks and bonds and "all the traffic will bear," and "the public be ———"? If this is not right, will the Professor enlighten us? He points out that there are weaknesses in the laws appointing these commissions. Here I agree with him, and if this country appoints a commission, these we want to avoid. He tells us that the judicial bodies have to pass on them at the last resort. Now, here is the rock on which all other commissions have split, and we must avoid that. We want no such provision; we want a commission with the simple powers of an ordinary jury. They have the power to try the law as well as the case; their decision is final. If the law is bad, so much the worse for the law. If we let the law be the final arbiter, there will be no end to litigation and no redress of grievances. It's no use to point to England, for they are in quite as bad a position as we in Canada in regard to freight rates. I understand that twenty miles from London you can ship goods to France and then to London for less money than you can ship direct to London. Is this a case of compromise? He points out that transportation is the most important question in Canada to-day, which is true. And this is the question our agricultural papers and farmers' institutes want to discuss, rather than how to produce goods, for all depends on the price we get when produced. We have already made two lords in connection with the C.P.R., and if it goes on charging present rates for passengers and freight, we are likely to make more. Is this a case of Empire building? Prof. McLean says Argentina is our great competitor. In this I think he is entirely mistaken. Russia is our great competitor. She is driving us out of the egg market in Britain; in butter she is up to us, and is coming on in cheese and bacon. As for wheat, Siberia is a country much like our Northwest and Manitoba, of much larger extent, and can raise wheat quite as good and is settling up much faster. It has a through railroad that carries passengers for one cent per mile (whereas our C.P.R. charges from three to five cents), and a freight rate less than half. This railroad is owned by the Government, and is not run to make money, but as their Minister of Railways declares, "to place their goods in the world's markets below all competitors." What is our Minister of Railways doing? Too busy testing cattle-guards! Mr. McLean contends that this question is beset with difficulties, some of them impossible of solution. Does Mr. McLean believe this? If so, he will find few farmers who agree with him. Is it possible that our legislators have given powers to railroad corporations so vast as to be beyond public control? This looks like an impostor of Mahomet's Koran. When he wanted to give great weight to some of his revelations, he commenced with a conundrum which no man could guess. It is needless to follow the Professor further at present, but state a few things that the farmers of Canada want:

1st, we want a commission, with ample powers to compel the railway corporations to show what they have done with the \$300,000,000 the people of Canada have given them to help build their roads, and how much of their own money they have put into them.

2nd, we want the watered stocks and bonds squeezed out, and that "witless" fifteen per cent. profit clause in their charters, that Mr. McLean tells us about, re-enforced.

3rd, we want a two-cent per mile passenger rate, and a freight rate on our heavily subsidized railways and steamships that will place our products on the markets of the world cheaper than all competitors, regardless of what the United States, Argentina, Russia or any other country may do.

This is going to be a big and long fight, and our friends will have to stand up and be counted one of these days. It would be well for our legislators and papers to show which side they are on, and not be led away by the writings of some one who may be in the employ of the corporations. FRANCIS VAN DE BOGART.

[Editorial Note.—It would be unfortunate if the Canadian Railway Commission were invested only with "the simple powers of an ordinary jury." In the Province of Ontario, where our correspondent resides, it is only in a very limited class of cases that juries determine the law as well as the facts, and even in these, judges have the power to say whether there is sufficient evidence to allow the case to go to the jury at all. The question has already been raised as to whether some small purely local roads subsidized by Provincial grants could, by a declaration of

the Federal Parliament that they were for the "general advantage of Canada," be made subject to Federal control. The chances of judgment, however, would be in favor of the Dominion. There will also be difficulty in controlling the C.P.R. rates, in view of the clause in the original contract which provides that its rates shall not be reduced until the road earns ten per cent. on the capital invested in its construction. When the C.P.R. received power to increase its capital stock from \$65,000,000 to \$85,000,000, a reference to the Supreme Court was agreed upon to determine just what amount actually was invested in the construction of the Canadian Pacific. The public would like to know that, and will be content with nothing less than an efficient regulation of rates on roads that have cost people so much, and the prevention of discriminations. The fight will not be over with the creation of the commission, because it is very likely that the exercise of its powers may be resisted, thus involving litigation, but if Parliament does its duty the commission should in the end secure practical sovereignty over the railways of the country. In another column we give an outline of the Railway Commission Bill as submitted to Parliament last week.]



J. B. HARRINGTON, LACOMBE, ALTA.
President Territorial Swine Breeders' Association.

A Change of Front.

Commenting on the new regulations regarding testing cattle imported from Great Britain to America, the Scottish Farmer concludes:

"The policy of the United States with reference to Channel Island cattle is peculiar. Many things in the United States are peculiar, and one more or less need not put us out. It appears that Mr. Salmon and his Bureau are convinced that Channel Island cattle bred in the Channel Islands are so absolutely free of tuberculosis that they and they alone of all cattle may now be entered at any port in the United States without undergoing the tuberculin test. This indicates a very astonishing change of front on the part of official persons. We do not understand it. The reasoning is faulty. If Channel Island cattle are so healthy, the test will not do them any harm, and it is too much to ask us to believe that their freedom from the disease is the cause of the new ordinance. According to every accepted theory, Channel Island cattle ought to be healthier in Great Britain than on the coast of France. Their alleged healthfulness does not demonstrate that human and bovine tuberculosis is not the same disease. The logic of the situation now created is the abolition of the tuberculin test in the United States. If dairy cattle of the deepest milking propensity are absolutely free of tuberculosis, there is no such disease as tuberculosis. The action of Mr. Salmon's Bureau is definable as humbug."

The Railway Commission Bill.

The Hon. A. G. Blair, Minister of Railways, in introducing his amended Railway Commission Bill in the House of Commons at Ottawa, on March 20th, very properly laid down this proposition, that "the first interest to be considered was agriculture, which far surpassed all other interests." It proposes in the first place to abolish the present Railway Committee of the Privy Council, and establish in its place a tribunal independent of the Government, and empowered to control the operation of railways, rates, trains, equipment, the protection of crossings, and also, we presume, freight shipments which involve part carriage by water. It will, like other railway commissions, give publicity to rates, etc., in which there is safety for the people. In its powers it is claimed to go beyond any previous legislation, and to avoid the weaknesses of other commissions. It is to be judge as to both law and fact; but there is a right to appeal to the Supreme Court when the jurisdiction of the commission is attacked, and on questions of fact to the Governor-General-in-Council or Cabinet. Is there not grave danger in the latter proviso, when great issues affecting the rights of people re-transportation are at stake, that the Commission might become involved with the political exigencies of the Government of the day? The Bill aims to remove long and short haul discriminations, provide uniform rates of classification, and the Commission is empowered to alter these rates and control tolls. The Inter-colonial Railway (Government line) is exempt from the operations of the Act, and the C.P.R. partially so, owing to the ten per cent. clause in the charter.

Freight rates are classified under three heads, standard, special, and competitive. Standard rates are to be fixed by the Commission, after application by the railways; the railway schedule may or may not be accepted by the Commission, and the decision of the Commission shall stand. Special rates would cover the carriage of coal, lumber, grain and similar commodities, and competitive rates might result from reduced charges between given points under certain conditions, but the board will have the power to disallow these amendments after a certain time. The railway shall give to shippers three days' notice of any decreased rates, and ten days' notice of any increases.

The board will consist of three or five members, Mr. Blair preferring three, but the number is left blank until the bill reaches the committee stage, when all its provisions will be fully discussed. The commission is to be a court of record. The term of the appointment of commissioners shall be ten years, but they shall be eligible to re-appointment. The age limit is to be seventy-five years. The commissioners shall be removable only by the Governor-General-in-Council, and then upon cause. One member of the commission may hold a hearing, providing the matter be not contentious. The place of meetings shall be movable on consent of the Government. A majority of the Commission will decide a case.

Big Feeding Test.

Professor W. J. Kennedy, head of the Animal Husbandry Department of the Iowa Agricultural College, has completed final arrangements for the mammoth cattle-feeding experiments to be conducted on the Cook farms, Odebolt, Iowa. The cattle have been carefully selected, and divided by Professors Kennedy and Marshall into ten lots of fifty animals each. Three separate lines of work are taken up: (1) Acclimation test; (2) light, medium, and heavy rations; (3) by-products of corn, flax seed and cotton seed, and dried blood.

None of the lots will be fed any stock foods, as the manufacturers would not enter this year's test on the same ground that they did last year and those complied with by the manufacturers of the other foods which are being fed this year. The feeding is being done by Newton C. Rew, a graduate of the College. Full details and results of the work will be published at the conclusion of the test.

With the scarcity of help that prevails this year, it will be more than ever necessary for the employer and employee to maintain a mutual understanding; cultivate politeness and a consideration for others. Charity covers a multitude of sins.

Stock.

Our Scottish Letter.

During the past three weeks, notable horse shows have been held in London, many of the British Experiment Stations have issued useful accounts of their work, and the splendid record made by Shorthorns continues unbroken. The London Hackney Show was an unqualified success. His Majesty the King did his best for all the three London shows, with the result that they had phenomenal attendances.

The Hackneys are at present being subjected to a good deal of criticism. Some of it is undeserved, but a good deal of it comes to the point. There is a disposition to kick at the prevalence of chestnut colors with their inevitable accompaniment, white markings. The complaint has not come a moment too soon. The Hackney is our ideal harness-horse sire. For harness horses men do not want light colored horses, and the undue prevalence of these colors is without doubt inimical to the interest of the breeders of ordinary commercial horses. The majority of the Hackneys shown this year were chestnuts with a superabundance of white markings. The sire which made by far the best show for harness purposes was His Majesty. His produce were well-colored, big, harnessy mares with good feet, sound limbs, and capital action. Rosador shows good show stock, but the bright chestnut and the superabundant white markings are very noticeable in his stock. Garton Duke of Connaught was sire of some of the best animals in the show, including the champion stallion. His stock are exceedingly useful, with plenty of size and wonderful action. The favorite among the females was his daughter, Queen of the South, a whole-colored dark chestnut, which walks and trots to perfection. Her full sister, Queen of the West, has greater substance, but less of the style and quality which makes the successful show mare. Both were defeated for the supreme honor by a Rosador two-year-old filly. The award was followed by an unwonted outburst of popular indignation. I never before witnessed such a scene in a British show-yard. The Rosador group consisted of this filly and her two full sisters—certainly a unique collection. Royal Danegelt is breeding very true to type, color and character. His produce have not the size of that from Garton Duke, and they lack the valuable commercial appearance of the produce of His Majesty. Still, they have so much breed quality that they may rank very high in perpetuating the breed. The most successful Scottish studs at London were those of Mr. C. E. Galbraith, Terregles, Dumfries, (which provided the male champion), and Mr. William Scott, Thornhome, Carlisle, Lanarkshire, which provided the first three-year-old and reserve junior champion female. This filly is named Bryony, and was bred by Mr. Scott. Her dam, Flash, has been an extraordinary dam. She has had many foals, and never had a bad one, while several have gone to the top in the keenest competition. Her sire was Moore's Confidence 163, a horse whose female produce have turned out unusually successful as brood mares. Mr. Scott is owner of the choicely-bred horse, Mathias, a son of the great champion mare, Ophelia. Mares are coming to this horse from Sir Gilbert Grenall and other prominent breeders in England. Bryony is a beautiful, whole-colored dark brown, and she has a full sister, one year younger, which gives great promise for the future. She was named in London, and will yet do more. Mr. Scott keeps a choice lot of Hackneys about him. The largest stud in Scotland at present is that of Mr. Alexander Morton, Gowanbank, Darvel, Ayrshire. In fact, Mr. Morton's stud is one of the largest in Great Britain. He was himself one of the judges at London, and, therefore, did not show. Both he and Mr. Scott will hold public auction sales from their studs towards the close of April.

CATTLE SALES have been numerous of late, and great prices have once more to be recorded for Shorthorns. The Birmingham Spring Sale was a great

event. There was a big entry of bulls and heifers, and plenty of buyers. Mr. Leon, a comparatively young breeder, near Bletchley, in Northampton, got the highest price, £315, for a young bull, but the best average was made by the Lovat herd from Inverness. This was £158 13s. Lord Lovat has a unique herd. All the leading bull breeders, such as Mr. Duthie, have to buy from Lovat, whose herd has been maintained in a high state of efficiency for a long series of years. The Lawsons, father and son, have built up a great herd of good Shorthorns for the head of the Frasers. Mr. Lawson, senior, died a few years ago, but his son has successfully maintained the tradition. Mr. Wm.



T. CRAWFORD NORRIS, M. P. P.
Griswold, Manitoba.

Bell, Ratheugh, Alnwick, in Northumberland, and not far from the Scottish border, has for some years past been building up a fine collection, and in a unique way. He has crossed cows of Cruickshank descent with what is called an English-bred bull. By this is meant a bull in which Booth blood predominates. This system has proved most successful in Mr. Bell's hands. He had an unreserved sale the other day and realized splendid prices. His fifteen bulls made an average of £127 2s. 5d., one of them named Baron Ratheugh going as high as £530 5s. The thirty-nine cows and heifers made an average of £45 9s. 6d. The Argentine operators are making the most of our successful sales. Their ports are now open, and, apparently, there is an unlimited demand for high-class pedigree stock. All the bulls at Ratheugh, but one, were bought for the Argentine, and a large proportion of those sold at Birmingham went the same way. The neighboring State of Uruguay is taking Herefords. A large shipment of these superb cattle left London lately for Uruguay. The country is opening up all round, and the future of British stock-owners is unusually bright.

Experiments in this country are more and more taking a practical form. Two interesting experiments have lately been made in oat growing. The aim was to find out the most profitable oat. Four new varieties, Abundance, Newmarket, Goldfinder and Waverley, came out best. This experiment was carried out at Garforth, in Yorkshire. An experiment on potatoes was conducted at Holmes Chapel, in Cheshire. It has been going on for seven seasons, the aim being to get at the best disease-resisting variety amongst new aspirants to popular favor. The simple fact about potatoes here is that the best soon give way, and the new varieties alone seem capable of resisting the blight. Eventually, most of them succumb. There is, therefore, need for constant vigilance, and any new sort is sure of a fair trial.

March 21, 1903.

"SCOTLAND YET."

Sheep-raising in Manitoba.

SOME PRACTICAL EXPERIENCE.

To the Editor "Farmer's Advocate":

Sir,—In attending the lectures at the live-stock convention lately held in Winnipeg, I was rather struck with the idea that most of the lectures on general management were more suitable for very large farms than for the average 320-acre farm of Manitoba, notably Mr. McQueen's, on sheep-raising. From his standpoint as a sheep rancher, I should think his management excellent, and I certainly am not blessed with conceit enough to think myself capable of criticising it, but I think discussion through the press helps to bring out the most valuable pointers of such addresses and impress them on our memory, and is also of benefit to those who were not fortunate enough to be present. What I should like to see in Manitoba is a small flock of about thirty ewes on every half-section, and these of the very best high grades and pure-breds of the short-wooled breeds, breeding early lambs for the table and rams for the ranges. I am confident that such flocks would be of incalculable benefit to Manitoba. I can state from my own experience, that with very ordinary care they will pay about seventy-five per cent. on the money invested, and the indirect benefits they confer are very considerable. As scavengers they are unexcelled. All weeds are cleaned up wherever they have access, and no seeds that have passed through a sheep will ever grow. Grass they have grazed off improves in quality from year to year, and scrub dies out in pastures they frequent. I like lambs to come as early as possible, so as to be ready to go off before grass gets scarce. Of course, this entails better care, and a warmer building for the winter, but for a small flock on a small farm I think it pays. I have found that with the free use of bran, there is not a heavy loss from early lambing, though occasionally, in the case of twin lambs with young ewes, a lamb is apt to be chilled, and if not found in time is lost. Strong lambs from well-fed ewes will stand a lot of cold. I have raised 55 lambs from 35 ewes, but as a general thing I just double the flock after deducting losses. This year, from one cause and another, I have not been lucky, having lost some ewes, and so far five lambs out of twenty-one, with thirteen ewes lambed. Wolves are not as destructive as people imagine. In twenty years I have lost, I think, about ten sheep by wolves, and six by dogs. The last were all killed at one time, and five of the others were killed by the same two wolves before they were caught. I use heavy bells on a number of the sheep, and this seems to frighten off both wolves and dogs. I sow about an acre or two of rape in such a situation that I can let the sheep run onto it from the pasture at will. For a week or so they go onto it for about an hour at noon, after which they have a free run to it, and I have practically no loss from bloat. Always use the best ram obtainable of the breed of your choice, and stick to one breed. Now, Mr. McQueen, come back at me; I would like to hear from you again.

Lorne Municipality, Man. A. C. HAWKINS.

Birmingham Spring Show and Sale.

At no other place can we find a larger, more varied or better selection of Shorthorn bulls than at this annual show and sale, which takes place every March in the Bingley Hall, Birmingham. Here we find very many of the best herds in the country represented, and there resort buyers from all over the world. After an absence of two years, the Argentine buyers were again to be reckoned with. One of them secured the top-price animal of the sale at 300 gs., a choicely-bred calf, from Mr. H. S. Leon's herd, Mr. Henry Dudding, equally well known for his Shorthorns as his Lincoln sheep, being the runner-up. Mr. MacLennan also secured several others for the Argentine, more went to Ohili, and many to Ireland. The demand was a very sound one, and all the best sold well. The average price for the 416 head sold, including bulls and females, was \$190.

Lord Lovat's herd from Scotland was well to the fore in the contest for the prizes and won the \$250 prize for best five bulls bred by exhibitor, Mr. G. Freeman coming in for second honors and Mr. H. S. Leon third, with Mr. J. Deane Willis as r. n. The class making the highest average was that for bulls between ten and twenty-one months old, which was £89, but there were only thirteen in the class. The highest-priced animal, £315, was in the class aged between twelve and fifteen months. There were eighty in this class, and the average was £44 16s. In the words of one who was one of the judges, Mr. Duthie, there were a lot of grand animals amongst them. This is plainly borne out by the averages realized, for save in one class there was no reserve bid allowed beyond the upset price of \$100, and few, if any, were really worth less than this very moderate reserve. Canadian buyers would receive a very hearty welcome to this sale, and they would be sure to meet with animals worthy of being taken to their country, to which so very many of the best have been taken.



EARLY MANITOBA LAMBS.

A corner in the farmyard of J. H. Clark, Meadowlea, March 11th.



C. P. R. STOCK-YARDS, DUNMORE, N.-W. T.

A Stockman Visits the Old Sod.

(Second letter.)

To the Editor "Farmer's Advocate":

In my former treatise I wrote of impressions on my trip here, and of horses, etc. This time I will confine myself to a sketch of my native Borderland, its pastoral scenes, and breeds of Cheviot and Border Leicester sheep.

No part of all this wide world seems half so sacred as this historical Borderland. No part has been more immortalized, in song and story, through the former scenes of many battles between England and Scotland, than this same spot. All up and down its classic vales are scattered old castles, monuments, abbeys, and a host of other landmarks. Within its sacred area runs the historical Yarrow, which hundreds of poets have immortalized in verse, and over in a sister vale runs the famous Ettrick, which boasts of drawing out the muse of Hogg, the Ettrick Shepherd, while on its banks lived the famous Thos. Boston, the author of "The four-fold state."

All over this historic country of mountain, streams and shaggy heath, pasturing peaceably, "in striking contrast to the stormy times of 200 years ago," are found the famous Cheviot sheep. This breed forms almost the sole inhabitants of the hills, and together with the Leicester, the other original border breed, supply the Lowlands, and indeed all Scotland, with the sheep known as half-breeds. This half-breed is a cross between a Leicester ram and a Cheviot ewe. This mating of two distinct breeds gives results not otherwise obtainable, and, contrary to the common belief, cannot be repeated by mating the offspring of the sheep named. Experience is against this, as the first cross is most in demand. The half-bred ewe, the result of the cross, is mated again to a Leicester ram, and a three-quarter-bred lamb is produced, but this breeding is merely for mutton-producing purposes.

Being fortunate in getting an invitation to an annual supper, given by Mr. John Anderson, of Ale Moor, every year to a few worthy cronies of his own choosing, about New Year's, I embraced the opportunity as one of the treats of my life, and I was not disappointed. I might mention that Mr. Anderson took a trip through Canada, and home by the United States, and that while in Canada he stopped off at Carberry and honored me with a visit. Somehow or other a supper at the end of a long tramp through heather hills and flowing streams has a romance about it which does not belong to anywhere else. When tumbling over sheep drains, crossing flooded streams, and climbing heather-clad hills, dreams of flour and barley and scones, heaped dishes of ham and eggs, such as are only known in these pastoral regions, flitted across my brain. The festal board far surpassed my best imaginations; indeed, I don't think I ever partook of a heartier supper in my life.

After we had finished supper, a trumping sound was heard in another room, and one of the guests declared it was the cook baking, as we had eaten every particle of bread in the house. The return

journey was no less romantic, for it was pitch dark, and every hollow was running with water, from recent rains, and being a novice at negotiating sheep drains, I more than once fell right into the middle of them, and had to crawl out on all fours. On another occasion I visited the sister vale of Teviot, divided from Alewater by a watershed. These watersheds are just hills, which rise gradually to a top, and then descend the same way into another valley, and river flowing in the middle. My road lay past the Town of Hawick, a tweed manufacturing center, and which in future will have more than a local significance attached to it, being in the immediate vicinity of the ground recently purchased by the War Office for training soldiers the art of war over this hilly country. Some 40,000 soldiers, I understand, will be permanently located there. At Hawick I saw the annual Fat Stock Show and sale of Messrs. A. Oliver & Son, and among other things saw young sheep under a year sell for \$15 apiece, which has not been reached for twenty years at least. Passing up the Teviot valley, we come to the estate of Harden, with its historical mansion-house standing on an eminence and overlooking the River Teviot. This house and surroundings have a country-wide notoriety, being the place where the notorious Watt Scott, the border reiver, or as we would now call it, "cattle stealer," used to live. Two hundred years ago, in the troublous times between England and Scotland, these cattle stealers made raiding excursions over the border into England, then in a state of war, and laid their hands on whatever cattle they could find, and drove them home. The place is pointed out in front of the house where they used to keep their cattle under guard all night, for "might was right" in those days, and the English over the border were equally guilty of cattle stealing. To own any stock these days, the owner had to be prepared to defend them.

No better place could be found for the purpose named, a deep glen, surrounded on three sides by steep banks, so steep that cattle could not climb them, with an opening to the south, which history tells us was guarded by Scott's men during night, when there was danger of an attack. Overlooking this, and right on the top of the glen, is Harden house, some parts of which have been added lately, but the old part of 200 years ago is still preserved. I had the luck to see all around and through the house. Inside the ceilings are chastely decorated with figures, trophies of the decorator's art. Over the huge fireplace is shown the hole where hung the hook for roasting the bullocks. Outside in front, and overlooking the glen, there is a door, near the ground at the south-east corner, presumably having been a door into a subterranean passage, which connected with some other house at a distance. On the underside of the upper door-lintel, is presumably a coat of arms (half moon, star and face), engraved on stone, and under is the date 1671.

The windows show signs of having been firmly guarded by iron stanchions. Watt Scott, of Harden, was captured in the fortunes of war, and carried prisoner to Elibank, another Scotch estate on the Tweed, and there had the option of hanging or marrying Murray of Elibank's daugh-

ter. Scott preferred the latter, and from the union has proceeded the modern house of Potwarth.

My travels took me away down south later, and over the borders into England; through the rich agricultural, gently sloping farms of Berwickshire, on the Scotch side, and Northumberland on the English. Away to the west of us, and towering skyward, the famous Cheviot hills, and on the plain resting at the foot, Flodden's battlefield, which ended so disastrously for the Scotch. Many a company went over the borders on that fateful day, and never returned to tell the tale. 'Twas on that great calamity that the famous song, the Town of Selkirk's National Anthem, was composed. The flowers of the forest are all wed away. Still preserved in safe keeping, although much decayed by age, is the flag that the few scouts brought back from the bloody field.

JOHN GRAHAM.

Condition of Range Stock.

The condition of range stock is not, on the whole, as favorable this spring as usual in Southern Alberta. Up till the first of March the winter was all that could be desired. There were no heavy storms, but enough snow to give necessary moisture and create conditions of thrift. There was no crust formed, the weather was generally clear, and the grasses were well cured. In some places grasses suffered a good deal from prairie fires, and in a few cases considerable hay that had been stacked was burned. This happened in the Little Bow country more particularly, and it was felt by many at that time that there was a necessity on the part of the Government to co-operate more vigorously with the ranchers for the conservation of the feed of the ranges. This destruction of grasses has made the wintering of stock in some places a little more precarious.

There will be some losses this year; to what extent cannot be ascertained until the riders begin to work. The cause is the severe weather of the month of March; from the first of March until the third week there has been, pretty severe weather; there has been heavy frost nearly every night. The difficulty, however, has not been so much due to cold as to heavy snowfalls. Constant cold at the end of the season, when the cattle are thin, is wearing and reducing on the stock. There is a strip of country between McLeod and Medicine Hat that has had good weather and not much snow. West of McLeod, and both north and south, the snowfall has been heavy. The whole circle away from the McLeod, Lethbridge and Medicine Hat country will suffer some. This includes the Porcupine Hills, Pincher Creek, Mountain View, Milk River Ridge and Maple Creek districts, and includes the range of the Walrond, Cochrane, McIntyre and Knight outfits. The north country about Gleichen, has probably not had more snow than usual. Considerable feeding is necessary up in this district in any season. The Cercle outfit will not suffer much. The snow in many places is from eighteen inches to two feet deep, and it has been heavily crushed by an interrupted chinook. The cattle cannot travel in

this snow without becoming used up, and it is hard to put a horse through it for more than eight or ten miles a day. The cattle are being taken out in some cases by using snowplows. Even where considerable feed has been put up the feeding has had to be continued so long that supplies are exhausted, and cattle that have been fed for any considerable time refuse to get out and rustle afterwards.

The stress of weather will affect the increase, as well as stock at present on the range. Cows that have been exposed will be weaker than usual; the calves will come weaker and also earlier, and will be apt to strike worse weather by coming earlier, and both cow and calf will suffer. The large proportion of dogie cattle on the range, from the large importation of this class of stock within the past two or three years, will not tend to reduce the proportion of losses. The losses will not reach any very serious proportions, but on the whole the cattle will suffer from the March weather. J. McCAIG.

Milk Fever Prevention.

In support of the theory recently presented in these columns that a probable cause of so-called milk fever, from which so many valuable cows have died, is the common and unnatural practice of milking the udder out clean immediately after calving, we note a letter in the Jersey Bulletin, by Mr. Geo. F. Weston, Supt. of Biltmore Farms and Jersey herd, in which he says that on a visit to the Island of Jersey, he was surprised to find that several of the leading owners of deep milking cows had ceased to fear milk fever, and the secret was that they had ceased to milk the cows out clean for the first three days after calving. Mr. Weston says: "When this treatment was first mentioned to me on the Island, there came before me like a flash recollections of a large number of cases in which the death of some favorite or large milking cow had been reported, attended with the explanation, 'We milked her out clean. In fact, there were times when we have done the same thing here, and I believe every breeder has done so. It now begins to look as if this was about the worst thing we could have done.'"

Dr. Wheeler, Veterinarian for Biltmore Farms, has been experimenting along the lines of this theory, and he writes that since November 1st, 1902, the system has been tried on thirty cows, fourteen of which are among the heaviest milkers in the herd, no other measures having been used, not even a pound of salts being administered, and not a single case of milk fever has occurred, nor a sign of it, which is unprecedented in the herd. Only four cows have manifested udder derangement under this treatment, three of which had had udder troubles after previous calvings, and only one, not a serious case, developed after the last calving, which might have developed anyhow. "The modus operandi consists simply in milking from two to three pounds every six hours after calving, for the first three days, or about one gallon to a gallon and a half in twenty-four hours. After the third day, may milk the cow clean. In other words, ease the udder in the same manner the calf would, only drawing the milk equally from each quarter, which the calf would not necessarily do."

Dr. Wheeler does not claim that these facts demonstrate the entire reliability of the treatment, but considers it most encouraging, and desires that others will give it a fair trial and report. The indications seem to point strongly to the wisdom of getting back to nature in this field.

Combating Animal Diseases.

Under authority of the act passed by the U. S. Congress last month, giving autocratic power to the Secretary of Agriculture in combating contagious diseases of live stock, Secretary Wilson has issued new regulations which are thus condensed:

All persons owning, managing or transporting animals, are required to exercise reasonable diligence to ascertain that the animals are not affected with any contagious or infectious disease, and have not been exposed to contagion by contact with other affected animals, or by being in pens, premises, cars or other vehicles contaminated by diseased animals, before offering them for transportation or introducing them into public stock-yards, public highways, or lines of interstate traffic. All persons having charge of affected animals, or those exposed to contagion, are required to keep them confined, and not to permit other animals to come in contact with them. Public stock-yards and feeding stations, alleys and pens, when contaminated by the presence of animals affected with or exposed to contagious or infectious disease, must be cleaned and disinfected in the manner required by the Secretary of Agriculture. Whenever a contagious or infectious disease exists the Secretary of Agriculture will quarantine the section of the country where the diseases are prevalent, and no animal can be removed until he gives authority. When it becomes necessary to slaughter animals, the owner

will be compensated after the value has been ascertained. Violations of the regulations are made punishable by a fine of not less than \$100 nor more than \$1,000, or by imprisonment of not more than one year, or by both fine and imprisonment.

Range Steer Experiment.

A special letter to the "Farmer's Advocate" from Guelph, states that little change in general appearance is to be seen in the steers from the Northwest Territory that are being experimented with. Of the nine which are being fed at the Agricultural College, five are in one bunch, and are now receiving each day 120 pounds turnips, 20 pounds chop and 70 pounds hay, while the other four get 90 pounds turnips, 16 pounds meal and 55 pounds hay.

Of the ten being fed at Major Hoods', five are tied, but two of them do not appear to enjoy such close confinement. From all present appearances, it probably will be the last of May or June before both lots will be fit for sale.

What Should be Taught at the Present-day Veterinary College?

The above question brings to a focus the whole question of veterinary education, because whatever the answer may be, it will undoubtedly throw light on the minimum of general preliminary education which the intending veterinary student should possess, and also the shortest time in which it is possible for any man to acquire a thorough professional education.

FOR THE ADEQUATE PROTECTION OF



(Shot by G. H. Sarona.)

THOROUGHBRED MARE AND FOAL.

Flitters by Galopion, winner of the Derby, and foal by Martagon.
OWNED BY THE EARL OF CREWE.

THE PUBLIC, THE MINIMUM OF PRELIMINARY EDUCATION AND LENGTH OF TIME OF PROFESSIONAL STUDY IN A VETERINARY COLLEGE SHOULD BE PRESCRIBED BY LAW! It is insisted upon in Great Britain, Manitoba, Quebec, and the great stock-raising States to the South; and it is incumbent on British Columbia, the Northwest Territories, and Ontario, to at once pass a similar law in order to avoid being the dumping-ground for a class of veterinarians possessing an inferior grade of professional education.

In passing, the question might be asked of the University of Toronto: What does affiliation with that institution mean in regard to veterinary education? Has not this great Provincial University been derelict in its duty, yes, prostituted itself, by lending its name and sanction to the antithesis of progress in professional education? What has the Chancellor and the other high officials of the University to say in extenuation of their course in pandering to the cupidity of the individual, to the damage of the entire profession?

Having passed the high school entrance examination of Ontario, or a standing or certificate equal to it, should he the minimum general education possessed before any person be allowed to enter the veterinary college. This standard is not at all high, and if a second-class certificate, or its equivalent, were demanded, the advantage would be all on the side of the intending student; he might not think so at the beginning, but would before he was through his professional course. The shortest time in which it should be possible for any matriculant to obtain a diploma,

and the right to practice, should be three collegiate years, each, at least, of six months' actual attendance at college by the student. I might here quote from the calendar of one of the leading U. S. Veterinary Colleges: "It is possible to earn money while attending college, but this is not advisable, as the time at best is very short.....!" and the course at that college is a three-year one!

Unless the two requirements, preliminary education necessary and length of professional study essential, are insisted upon, no up-to-date course can be mapped out that will endow a man with sufficient training to differentiate him from the diploma-holding quack. The insistence on the above requirements would not lessen the number of entrants into the profession, but it would mean that a high grade of professional men would be turned out, and as a result more profitable service be rendered to the fee-paying public.

At the outset it may be stated that the value (?) of the so-called veterinary correspondence diploma will not be discussed, beyond this statement, that only the ignorant, excited by cupidity, or those who have been misguided, will indulge in the expensive attempt to take a short cut to a profession; the uselessness of such credentials will be self-evident as the course to be mapped out here is studied, and from the fact that they have no recognized status. Similar to the agricultural, medical, legal, dental, engineering, and other professions, theory and class lectures, or studying of text-books, are insufficient to qualify a person for work in those professions; practice in the field, the hospital, the courts, the laboratory and the workshop is absolutely indispensable; in that great trinity of senses, the eye and the hand must have equal place with the ear in the work of educating the future practitioner. Unless this is done, the student will not be a success, cannot make a living, or rightfully earn the fees which he may receive.

In a three-year course, the disposal of the vacation periods between the three sessions will engage the intending student's attention. When possible, both should be spent in practice with an experienced veterinarian, if general practice is to engage the attention of the student; if he is to be an investigator, one of the vacations should be spent in a first-class bacteriological laboratory. The city student would do well to spend his first vacation on a good stock farm, and thus become familiar with animals in health; the second being spent in practice as mentioned above. The veterinary college of today has several roles to fill—to educate the man for general practice, for meat and milk inspection, and for the investigation of animal diseases, especially those communicable to man. To accomplish this great work, the raw material, in the form of the

student, must be up to a certain standard, which has already been touched upon. Thoroughness in the teaching of the fundamentals is the foundation of success for the student and practitioner to be, whose interests the veterinary college is supposed to look after. The first year's work should include anatomy and physiology, histology, chemistry, materia medica and pharmacy, dentistry and horseshoeing. The laboratory should, in comparison with the lecture-room, be allotted at least, of the student's time, in the proportion of two to one. In anatomy, the great essential is dissection and quizzes on the work done, and on the acquisition of a good knowledge of anatomy depends the practitioner's success; physiology, or the workings of the animal body, must back up the construction (anatomy) of the same. Histology, or microscopic anatomy, is absolutely essential also, especially to the future investigator and meat inspector; laboratory instruction in this branch must be unstintingly given; without it, it is impossible for any person to become a pathologist. Chemistry embraces a wide field for the veterinary student, who needs to be possessed of considerable knowledge of this branch to avoid incompatibles in prescribing; to know the action of the body fluids, and to be able to perform urine analysis. Materia medica and pharmacy will include the study of drugs from both mineral, vegetable and the animal world, and also the proper methods of prescribing and dispensing those drugs. Horseshoeing explains itself; an elementary knowledge of the principles underlying the art are essential. Dentistry should also be taught the student, as it is now well known that horses especially are much sub-

ject to tooth troubles, which, if not attended to, mean great loss to the owner. Another important reason why this subject should be taught, is to do away with any excuse for the itinerant so-called veterinary dentist, who is to-day one of the most arrant humbugs and impudent charlatans who feed on the farming community. The first year the student will have found his time pretty well employed if he has been faithful, and nothing less pays!

Second and third year studies, while harder, are probably less irksome, because more interesting to the average man. During the second year, the student should be drilled in comparative anatomy (the construction and comparison of the bodies of the different domesticated animals), a very important subject, a knowledge of which will often save bad mistakes, perhaps a human life! It was knowledge of this subject (comparative anatomy) which enabled a prominent veterinarian a few years ago to upset the testimony of many physicians in a celebrated murder trial. The prosecution produced some bones, said to be those of the murdered person, but which were shown to the court by the veterinarian to be the bones, not of a human being, but of a pig. More advanced work in physiology and chemistry is also taken up. In the second year, the midway of the professional course, the student is introduced to the theory and practice of veterinary medicine (the discussion of the causes, treatment, and prevention of animal diseases), diseases of dogs; veterinary obstetrics (the science treating of breeding, and the introduction into the world of the newborn animals); parasitism, under which is discussed the effects and identification of worms and other parasites, and their riddance from affected stock; veterinary surgery (the science involving the use of the knife), to rectify malformations, growths, etc., or for such purposes as castration, and the scientific treatment of wounds; general pathology, a discussion of diseased processes, and their identification by the naked eye or the microscope, in which discussion the student will be introduced to the science of bacteriology, which opens up the field of contagious diseases and their suppression. The third year will not only include a thorough review of the previous year's work, but also advanced instruction in the diseases, their recognition (by means of clinics) and treatment; special pathology (in which diseases are referred to the organs affected); meat and milk inspection; advanced bacteriology; veterinary jurisprudence (a course on the laws affecting the veterinarian particularly); the indications for the use of special drugs, together with their actions (therapeutics); advanced veterinary surgery, including instruction in the more important operations; veterinary sanitary science or hygiene. It will thus be seen that for the student to compass these subjects in the minimum time (three collegiate years, of six months each), he will be a very busy man, without a moment to waste. The mention of the studies must necessarily be brief, but one may be pardoned for again insisting on a bountiful measure of clinical and laboratory work, the former in the hospital and operating room, where the student will not only see, but will himself assist in the performance of all necessary operations; the dressing and removal of teeth, firing, removing portions of nerves, castration, trephining, suturing, and the hundred and one conditions that may arise in practice. In the laboratory he will test milk, analyze urine, make microscopical examinations of tissues obtained from the living and the dead; identify germs, and, perhaps, find the cause of an expensive, disastrous zootic disease, and by his knowledge be enabled to suggest means to suppress it; he will learn there to quickly identify a parasite in meat, which if found by one of our foreign customers would result in an embargo on all our live stock, and by his knowledge, obtained from divers sources in the course, be enabled to suggest to his farmer client and friend, ways and means of rendering stock more healthful and profitable. The thinking man or woman will at once see the importance of a thorough scientific training for this great profession, and will agree with the formulating and passing of laws which will prevent any institution attempting to give less, either through too short a time for professional study or accepting as students men without the necessary primary education.

VETERINARIAN.

A Little Girl's Chat.

"Oh, Mertie, what a nice bracelet; where did you get it?"

"Why, Sarah, didn't you know I got some new subscribers for the 'Farmer's Advocate,' and they sent me this as a premium; and see Pappa's knife, too; isn't it a beauty?"

Dear "Advocate,"—I received your knife and the bracelet, and I think it is all right. Thanks. Winchester Municipality. MYRTLE GIBSON.

Warbles.

Warbles in cattle is one of the insect pests that might be exterminated if everyone gave attention to the matter. That they are painful to the cattle and injurious to hides, where these are sold, there is no doubt, but there is very little systematic effort made to improve conditions. A little time spent now, before the cattle go to grass, in pressing the grubs out or smothering them in their cells by smearing their air-holes with tar, will prevent them from further propagation. In summer the warble escapes from the backs of the cattle, falls to the ground, goes into the pupal stage, and later comes out as a fly. These flies lay on the backs of the cattle the eggs which afterwards hatch into the grub. The grub then works under the skin, and gives the animal trouble during the greater part of the winter and spring. Knowing the life history of these insects, it is seen how important it is to check them at this time of the year, as they are then most easily found and killed.

Horses.

The Hunter and Pony Shows.

As typical of the interest that is taken by Englishmen, by their wives and daughters also, no better example can be quoted than the enormous attendances which have, day after day, been found during the past three weeks at the Royal Agricultural Hall, Islington. First came the weighty Shires, moving, notwithstanding their ponderous size, with agility and grace only excelled by the grand movement and action of the noted Hackneys, whose breed monopolized this noted show hall during the second week; the third one is now being devoted to the display: (a) Thoroughbred stallions competing for what are termed King's Premiums, being the money voted by Parliament in years gone by for the Queen's Plates, as they used to be termed; (b) by the Hunter stock, and (c) by the Polo and general Pony section.

The first section drew, as it always does, a large and fashionable audience, but from the spectacular point of view it was monotonous to watch; the whole day being devoted to the awarding of the twenty-eight King's Premiums, each of which is of the value of \$750, the winning horses being allotted to certain specified districts, and bound to serve not less than fifty half-bred mares at the inclusive fee of \$10 per mare.

As to what are the results secured by this allocation of public money in support of horse-breeding, considerable difference of opinion exists. There are many who contend the result does not justify the expenditure, and viewed in a general

way, it must be admitted that facts are much in favor of this contention. At the best, the produce is one which, if it hits, commands a good price; but if it misses, is next to valueless for general commercial use. However, as year succeeds year, the opposition remains quiescent, and hence public money goes each year to support this one section of the live-stock industry, the producers of which are of very limited numbers.

The Hunters' Improvement Society, whose nineteenth annual show, the present one, secured an entry of real good merit and quality, but of smaller dimensions than in either of the two preceding years. Two days were given to this section of the show, H.R.H. the Prince of Wales honoring the opening day by being present, and their Majesties the King and Queen came on the second day, on both of which the crowded hall and reserve seats fully testified how greatly this patronage of the Royal Family was appreciated by the general public. The classification was upon the lines of former years, including classes from yearlings up to the five-year-old, and in addition this year classes were provided for jumping, which, as always is the case, were very much appreciated, and certainly proved an undoubted attraction.

To those who are interested in breeding this description of stock, the show offers an unrivalled opportunity to see many of the best and most typical animals of this breed, and also a place where most of those who are interested in breeding and using Hunters can be seen and met. The dates of these annual fixtures being permanent, only differing a day or so each year, makes them most convenient for this latter purpose.

The last two days of the show were devoted to the exhibition of Polo ponies and ponies in general. It was an instructive and interesting display. The Polo men were present in full force, and their breeding classes were brought out in grand condition. The whole of the young stock demonstrated the excellent result that has been brought about by the excellent work of this society. Representative specimens of the Highland, Dartmoor, New Forest, Exmoor, Fell, Welsh, made an interesting and instructive display. The getting together in one place of so many different varieties of the British pony is an excellent idea, and it makes up a display which is certain to bring about improvement in the breeding of these small but valuable specimens of the equine race, which now and will be, despite the advent of the motor car, of the highest commercial value and utility.

All through the agricultural press, and in most of the leading London papers, the comments upon these combined shows have been most complimentary, and the result of this year's show has been that not only has there been a much larger share of popular support accorded it, but the interest taken in the several developments aimed



DIVIDEND (10739).

Clydesdale stallion. Foaled April, 1898; sire Pandora's Prince (10301); dam Darling VIII., by Cairnbrogie Stamp. IMPORTED AND OWNED BY DALGETY BROS., LONDON, CANADA.

at, particularly in the last two sections, has become so much more popular that increased success may be reasonably anticipated in the immediate future.

Colic: Prevention and Cure.

At this season, when thousands of farm horses are suddenly being put to heavy work on the prairie, and are being introduced to a heavy grain ration, cases of colic will not be uncommon. With animals that are subject to this malady, a tablespoonful of ginger, fed each night in the oats, will so tone up the digestive organs that heavy feeding may be carried on with moderate safety. Avoid, if possible, the necessity of giving large draughts of water immediately after feeding. When an animal has fallen a victim to colic, administer as quickly as possible a drench composed as follows: Laudanum, fluid extract of belladonna, and sweet spirits nitre, 1½ fluid ounces each, in one half-pint of water. If the first dose does not bring relief, it should be repeated in one hour.

Farm.

Hints to Beginners.

Watch carefully those in your neighborhood whose fields are freest from weeds, and whose buildings are kept in best order; these are the men to copy, and until you have established ideas suitable to this Western soil and climate follow no others.

Prepare at once to adapt yourselves to changed conditions; you will find it safer to adopt prevailing Western methods than to use those perhaps more familiar to you.

With us labor is scarce, consequently labor-saving machinery is a necessity. Four horses constitutes a very serviceable team for Western work, and in buying implements or farm machinery of any kind bear this in mind.

Mixed farming is safer than exclusive wheat growing. A hailstorm, slight frost or extra dry spell may greatly damage the latter, whereas the mixed farmer, with numerous resources, has a more steady revenue.

In selecting a locality to make your home, pay considerable attention to what the water of that district is like. Some places are much better than others, and good water is essential.

The West is a large country, composed of a great variety of soils and various climatic conditions, which make some parts peculiarly adapted for grain-growing, and others for ranching, so that the beginner must first decide which line he prefers and then select his land accordingly.

Some prefer open prairie, where the plow can rapidly prepare the ground for the golden harvest; others like considerable timber, with an eye towards fuel and shelter, even if the land should be somewhat more broken. Both kinds are to be had, although the former is more frequent than the latter. See that you get that which you think will be most satisfying.

In breaking the prairie sod, plow as shallow as the sod will turn; then when backsetting (plowing it the second time), go deeper. This lightens the work on the horses, and hastens the rotting of the sod.

Vegetables and roots of almost all kinds do well. A small garden will repay abundantly. See that you grow a supply of the necessary vegetables.

Small fruits do best on a north or north-east exposure; consider this, if possible, in selecting a site for your house. Land slightly rolling drains better, and, consequently, is also more healthy for building purposes.

In choosing a location, the distance required to transport grain to market is an item worth considering, and if you have a family, the distance to the schoolhouse is worthy of serious thought.

Naming the Farm.

Too much cannot be said in favor of giving the homestead a name, by which it may become distinguished in the district or Province in which it is situated. Most farmers who are breeding pure-bred stock have taken advantage of this idea, and there is no reason why others who are making special efforts in producing high-class products or to have their premises appear homelike should not do likewise. It will influence the boys and girls to think more of home, and will lead them to take a greater interest in making it appear beautiful. It costs nothing, and can certainly do no harm, but will rather tend toward making the home more widely known, and, eventually, more valuable.

Soil Cultivation.

Our soils in Manitoba and the Northwest are noted for their exceptional fertility, and for the ease with which they may be cultivated or worked. In these two particulars they compare to great advantage with most soils in the Eastern Provinces and States, and while farmers here may have had, at times, to meet hardships, yet no blame has ever been attached to the soil in respect to these two characteristics. In the early days of the West, the land was, for the most part, taken up by settlers from these Eastern parts. They soon found that they could quite often get bountiful crops with very little cultivation or work. This soon led many of the pioneers into slovenly ways of cultivation, the evil effects of which are painfully evident to-day, in the foothold which noxious weeds have obtained in our soil. By hard experience they had to learn that the Western soil would repay them just as profitably for proper, thorough cultivation, as any other soil in the parts from which they came. Those who are coming into the country now are in a position to profit by the experience of those who were here before them. In view of the fact that many in the West will this year be cultivating their "new" soil for the first time in their experience, a few suggestions may be timely.

The two outstanding characteristics of our soil mentioned above, while they are really distinct qualities, yet they are both dependent upon the same cause, viz., the large percentage of humus in the soil. Our soils are, for the most part, naturally clay loam soils, but the decay of heavy crops of prairie grass for ages has produced in it that abundance of humus which gives it its rich dark color and good physical character. Humus in a soil has the two-fold effect mentioned. It opens up a clay soil, and renders it less cloy and cohesive—hence, more easily worked. Humus has also the power to retain a very large amount of soluble or readily available plant food. It is the only medium in the soil that will retain the nitrates. The clay particles have some affinity for the phosphoric acid and potash, but little or none for the soluble nitrates, which would leach away in the soil were it not for the presence of humus. Therefore, the fertility of our soil is due largely to the power of the humus to retain the available plant food, and to maintain a proper physical condition.

In soil cultivation we have a three-fold purpose in view: First, to pulverize the soil for a seed-bed, and to give it a proper physical texture for plant growth; secondly, to control noxious weeds; and, thirdly, to conserve moisture. While the first of these is very important, yet the second and third are particularly so with us.

Our soil, which is so well adapted to raising the cereal crops, particularly wheat, is just as suitable to the rapid propagation of noxious weeds. Through lax methods of cultivation and careless selection of seed, aided by the distributing influence of strong winds, we have our country seeded down with an endless variety of the most noxious weeds. We cannot hope to eradicate these completely where they have once got a foothold. They produce great quantities of seed, which is of an oily nature, and thus have the power to retain their vitality in the soil for from ten to twenty years. These, when plowed under, lie dormant until they are again turned up near the surface. But we can keep them pretty well under control, if we are careful to cultivate the land before the weeds bear seed. We can free the surface soil of most of them, by cultivating to germinate the seed, and then destroying them before they seed. This method is very successful with the shorter-lived weeds. The perennials must be constantly cultivated to keep down the green top, and so starve the root until the plant dies.

The other important object we should have in view in cultivating is to conserve moisture. Our climate tends to be dry, and the soil quite often lacks the moisture that is required by cereals for their best growth. Although there may be plenty of rainfall to supply the crops, it quickly evaporates from the soil. The capillary action of water causes the moisture to rise in the soil to the surface, from which, if there be no earth mulch on top, it is fanned away by the winds. This capillary movement is very important in bringing the ground water up to the roots of the plants. There should be a layer of loose, worked-up soil on the surface, to form a mulch to prevent the moisture from rising quite to the surface. This can be done by cultivating, and should be renewed from time to time, so long as the land is bare. In spring-sown land, the soil should be thoroughly cultivated to form a mulch that will be effective in retaining moisture until the crop develops enough to cover the ground. To get the best results from the bare fallow, it is necessary to give the soil frequent cultivation, of one kind or other, throughout the season. Fall cultivation, after the crop has been harvested, is desirable, because it is effective in retaining the moisture of the fall rains for the following crop.

Summer fallow and fall plowing should be considerably deeper than spring plowing. The reason for this is found in the fact that the deeper mulch thus formed will not only incorporate

some of the subsoil with the surface soil, but will also form a reservoir for the heavy summer and fall rains. The effectiveness of the deeper mulch will be destroyed before the following spring, when a shallower one should be made, which will retain the moisture and yet allow the water to rise to the seed-bed. Shallow plowing in spring is desirable, because it allows the moisture to rise to the seed-bed, which is usually two to three inches below the surface. These points are particularly important if the spring be a dry one; as by having a shallow mulch the moisture is encouraged to rise to the seed, and so induce early germination and rapid growth.

While I have dwelt on these two objects of cultivation as peculiarly important for the West, I have not overlooked the other requirements of good cultivation. But it will be seen that cultivation with a view to controlling weeds will also have the effect of conserving moisture, keeping the soil in a friable condition, and meeting the other requirements of good cultivation. It is, therefore, very important for us to understand that careful, thorough cultivation is just as important for us in the West as anywhere else; and that in cultivation we should particularly emphasize the eradication of weeds and the conservation of soil moisture.

C. L. S.

Soil Moisture.

To farmers everywhere, it is well known in a practical way that unless the soil contains a fair amount of moisture during the growing season, a large yield of grain cannot be obtained. A practical American agriculturist, who is considered an authority on all questions pertaining to soil cultivation, has said that at seed-time the soil contains enough moisture, if it could be conserved, to supply plants throughout their entire period of growth.

In this statement there is no doubt a great deal of truth, but the question arises under what methods of cultivation may the moisture be maintained, and what are the laws which govern its waste? To properly understand these, it is necessary to turn our attention to that invaluable handmaid of practical agriculture, science, whose students divide all water contained in the soil into three classes. The first, called free water, includes that which lies upon the surface and is present in greater quantities than the soil is capable of absorbing. Land containing free water must always be drained before agriculture can be successfully carried on upon it. A second class to be considered is known as hygroscopic water, and refers to that moisture which a dry soil is capable of absorbing from a moisture-laden atmosphere. This, of course, amounts to so little, even in an extremely dry season, as to be scarcely worth considering. The third class, and the one which may be largely controlled by cultivation, is known as capillary water. It includes all the moisture that is capable of adhering to the tiny particles of soil, and from it plants derive all the moisture made use of in dissolving the different constituents of food supply in the soil.

To a correct understanding of how capillary water is held, it is necessary to bear in mind that the soil is composed of minute particles, each one distinct in itself, those of clay being, of course, much finer than those of sand. When a soil contains all the capillary water which it is capable of holding, each of these grains is surrounded by a thin film of water, and it will hence be readily understood that the more loosely they are held to one another up to a certain limit, the more water will be held in a given area. The chief point to be borne in mind by the farmer in connection with this capillary water, is its peculiar faculty of becoming equalized throughout the soil. On land that has not been cultivated for some time, and has been allowed to become firm, small pores are formed, through which the moisture is conveyed in every direction. So it is that when the heat from the sun and dry, parching winds remove the moisture from the surface of land that has not been stirred for a time, the water in the lower strata continues rising to take its place, until the soil becomes practically dried out.

The question is sometimes asked why a summer-fallow should contain more moisture than an uncultivated field lying near by. The reason is that the occasional cultivation which the fallow receives breaks off the pores through which the water rises, and when it comes up to the point where the cultivator has moved the earth, it is stopped; the loose surface forming a mulch to prevent further evaporation. In this lies the principal secret of the summer-fallow as a storehouse for moisture for future crops. Of course, the cultivation which it receives improves the mechanical condition by so separating the grains of soil that more water can be held.

In preparing the land in spring for a crop, the more solid the lower layers can be kept, as long as a good seed-bed is secured on top, the better will the moisture rise to the bottom of the seed-bed, where it is accessible to the roots of the grain. Of a dry season, spring plowing cannot give as good results as land turned in the fall, because the area in which the grain plants stretch

forth in search of food, having been stirred, is apt to admit the air freely to too great a depth. It is, however, in cultivating the summer-fallow and in growing root or other crops which admit of intertillage that a knowledge of the movements of soil water is of most value; and it should be borne in mind that a loose surface of two or three inches is essential to the economical saving of moisture. When a heavy rain has packed the upper layer, the harrow or cultivator should be applied as soon as the land is dry, else the capillary pores will become continuous to the surface, and the water which is so necessary to plant growth tend to become exhausted.

Soil Problems Discussed.

In the spring cultivation of land that has been summer-fallowed, use a cultivator that cuts all the ground, followed by plenty of harrowing both before and after drilling, and the weeder either just before the grain is up or when it is three or four inches high. If there is much couch grass or winter annual weeds, it may be necessary to gang-plow it.

Spring plowing should be four to six inches deep, followed by the sub-surface packer and harrows, if the weather is at all dry, seeding every day's plowing before leaving it at night. Harrowing five or six days after drilling is a good thing to give the grain the start of the weeds. The summer-fallow may be a good thing, but I think an occasional seeding to grass is better.

To follow any rotation with much advantage, it is necessary to have the farm fenced and divided into fields. There is nothing on the farm that will give better returns for what it costs than this. Seed with timothy or rye grass, or a mixture of both, along with a grain crop; take a crop of hay off the first year, pasture the second, and break up the third; then take off about three grain crops and seed down again.

The sub-surface packer is said to retain the moisture in new plowed land. I have used one for three years, but cannot say positively that I have seen any difference in the crop where it was used and where the land was given two strokes of the harrow instead of the packer; but the last two seasons have been so wet, and the one before that so dry, that it did not make much difference what was done. In a year that is moderately dry it would probably improve the crop, and it certainly settles the land down better than anything else I have tried, and rots the stubble and manure better.

A very good way to use manure is to spread it every day in the winter, as it is made, on land intended to be plowed for oats or barley in the spring, but it is apt to put a good many weed seeds into the land. If a grass rotation is followed, a much better way to use the manure is to spread it on the grass intended for pasture next summer. The cattle will tread weed seeds into the ground and make them grow, and afterwards eat the weeds off. The straw is also broken down, so that it does not bother while plowing.

Wallace Municipality.

A Money Saver.

I am very pleased with the "Farmer's Advocate." I believe that a great many of us who came to this valley from Ontario would be worth \$300.00 more to-day had we three years ago taken the "Farmer's Advocate," and gone by its advice.

Swan River, Man.

WILLIAM H. SHAW.

Soil Fertility.

[Paper read by C. L. Strachan, Associate Ontario Agricultural College, before the Manitou Farmers' Institute.]

Our soil has been so richly supplied by nature with all the conditions favorable to plant growth, that the process of cropping thus far even has not exhausted its fertility sufficiently to cause the farmer any particular anxiety. But the fact nevertheless remains, that our soil is gradually



RESIDENCE OF D. W. McUAIG, Macdonald, Man.

becoming exhausted. This fact has been proved by Prof. Frank Shutt, chemist of the C. E. F. staff. He made analyses of soils that had been under cultivation for some twenty or twenty-five years, and compared them with the analyses of virgin soils from adjacent prairie land. The results show a decrease in the plant foods, but particularly in the available plant food. In view of this fact, even if we do not as yet feel the loss of fertility, I think we are justified in looking a little into this subject. Now, it is not my purpose to-day to advocate or to discuss at any length the use of manures; I just want to say in regard to commercial fertilizers that for general farming our soils have no need of them as yet. These fertilizers are always in a more or less soluble form, and if applied to our soils with their present fertility, there would certainly be a great loss through them leaking away with heavy rains. They may be used with profit, however, on a market garden, or such cases where the cropping is very exacting and intensive, and where rapidity of growth, earliness and high quality of produce are important factors, where plants require to be forced. But for general farming, for growing cereal crops when the growing period extends over a long season, we do not need to consider them. Lime may be profitably used in some cases, as we shall discuss later on.

In regard to farmyard manure, the right and proper thing to do is to make the best possible use of that we can. It is the very best general fertilizer that can be used. It not only supplies all the essential fertilizing constituents, but also supplies the soil with humus or decayed vegetable matter, which is an important thing in all fertile soil. Another advantage it has over commercial fertilizers is that while their value is only effective for one year, that of the manure extends over several years. The plant food supplied is not all readily available, but is gradually released as the process of decay goes on. I want to say just a word regarding the manurial value of green crops

which are plowed under before they reach maturity. These have all the advantages of the barnyard manures. It is usually some leguminous crop that is used for this purpose, such as clover, vetches and peas. This class of plants have the power to take the free nitrogen from the air and transform it into an available plant food. The power is due to the presence in the soil of myriads of micro-organisms or bacteria, which inhabit lobules or tubercles which become attached to the roots of these plants. It is these bacteria which have the power to take up the free nitrogen from the air and convert it into nitrate, and so supply the plant with nitrogen in an available form. Our soils in Manitoba do not naturally contain these bacteria, and that is one reason why clover and peas do not do so well with us. Our soils will have to be inoculated in some way with this class of bacteria. There is a prepared culture called nitrogen, which contains this class of bacteria, and which has been used successfully at the Brandon Exp. Farm and in several experimental stations in the Western States. Another method of inoculating the soil is by taking a quantity of soil from inoculated localities, as Ontario or Eastern States, and sowing in the drill with the leguminous crops. The results were in each case markedly successful, and the tubercles formed upon the roots of the plants. The knowledge of these facts is one of the most valuable additions to agricultural science of recent years. Nitrogen is the most expensive, as well as the most necessary, of the three essential fertilizing constituents which a soil is likely to require, if the farmer has to buy it in the form of commercial fertilizer, so it is a great saving to the farmer to have the plant get it free from the air.

By fertility of soil we mean its productiveness—its power to produce crops for us. This power depends upon the presence of the elements and conditions required by plants for seed germination and for plant growth and maturity. Experience and experiments have taught us that plants require in the soil, air, moisture, heat and plant food. The roots of a plant require air just as much as the leaves, and of course they require heat and moisture. If the soil lacks any one of these, or has a superabundance of any, it means death or, at least, retarded growth to the plants. We cannot do anything to supply the air, heat or moisture. These are always provided by nature. But we can do much to hold them where the plant can get them, by keeping the soil in a proper condition. A fertile soil must be in that physical condition or texture to admit air and hold moisture and heat, as well as contain the necessary plant food. You see, then, that the fertility of the soil is influenced by the cultivation as well as by the supply of plant food. Let us first consider the supply of plant food. Every fertile soil must contain the ingredients which plants take up through their roots and build up into tissues. Most soils contain an abundance of many of these elements, but there are three—only three—of those essential to plant growth of which soils are apt to become exhausted. They are nitrogen, phosphoric acid and potash. When we speak of a soil being run out or exhausted, we mean that it lacks one or more of those three elements. In their free or independent state, the phosphoric acid and potash are hard metallic substances, and the nitrogen is a gas. To be used by plants, the nitrogen must be united with other elements to form soluble nitrates; the phosphoric acid must be united with other substances to form soluble acid or phosphates, and the potash must be in some soluble form.

Every arable soil possesses its stores of plant food in two forms: 1st, the inert or locked-up form; and, 2nd, the available form. The former



A RICH FARMYARD. THE HOME OF JOHN HAWKS, MEDICINE HAT, ALTA.

is the insoluble form, and is of practically no value to the growing crop. The latter is the soluble or available form, and is in a condition to be immediately taken up and made use of by the plant and built up into its tissues, root, stem, leaf and seed. A sandy or coarse gravelly soil may be just as rich in total plant food as the best loam soil and yet be almost absolutely infertile, for the reason that there is so little of it available for the immediate use of the plant. Even in our most fertile soils there is a very small proportion of the plant food in the available form, the greater part of it is locked up and inert. This condition is really of the utmost advantage. If this were not the case, our soils would soon lose their fertility by having their plant food washed out by the heavy rains and carried away. But this unavailable locked-up plant food in the soil is being gradually converted into the available form by the weathering action of rain, frost and other weathering agencies.

But with continuous cropping, especially with one kind of crop, the demand for the available plant food is greater than these agents can supply. The available plant food is diminished, and so the soil becomes run out or partially exhausted. We must assist the weathering agents in this work by turning up and loosening the soil particles, and so exposing them to the action of the air, rain, frost, light and heat of the sun.

Spring Cultivation and Summer-fallow.

I believe in plenty of surface cultivation in the spring, on all ground intended for crop, if time and power can be found to do it. On summer-fallow, perhaps, if it is clean, and it will be if the work is properly done, a stroke or two with the harrow will do ahead of the drill in the spring; but I prefer a wide-sheared cultivator as well, if possible. I would not sow on fall plowing at all in this district. I would sooner risk a crop on the stubble than on fall plowing, and then I would burn the stubble off and give it a good cultivating, or plow grain in, and then put plenty of work on top, close after the plow. Summer-fallow, however, is the most successful here, and ground should be well plowed in June and kept good and clean on top after, with a wide-sheared cultivator. This surface work is the best way to kill weeds, and at the same time it is the most effective way of conserving moisture.

This should be done every third year at least; that is, two crops, then fallow, but better still, one crop, then fallow. When soil gets too fine, and void of humus, seed it down and pasture it a couple of years; then, perhaps, take a crop of hay; break up again, and proceed as before. Of course, a great deal depends on the size of the farm, the number and kind of stock a man keeps. I am still on new land myself, and have not yet had to seed down, but I am approaching that, and I think I would put the manure on the pasture field well rotted, and brush it in. This is a wheat country, and we do not have to bother with barley, peas, corn, etc., as yet. Grass, wheat and summer-fallow has been successful here so far.

FRED W. GREEN,
Moose Jaw District.

Cultivation on Clay Loam.

My farm is of a dark clay loam, free from stone and easily worked. On land that has been summer-fallowed, I harrow and then drill in the seed as early as possible. After the summer-fallow has been sowed, I then sow the fall plowing in the same way, only a stroke of the harrow is needed after sowing. Land that has to be plowed in spring, I turn about six inches deep, then harrow, roll and drill in the seed.

In this district it is desirable to summer-fallow, as it prepares part of the land for a crop at a slack time of the year. It also gives the land a rest, retains moisture and gives a better crop. I prefer to summer-fallow once in four years, taking two crops of wheat and one of oats. Plowing in June and harrowing at frequent intervals until August, I have found to be the most effective plan of conserving soil moisture.

The care and handling of manure I consider an important question. All the manure collected during summer, fall and winter I prefer to have placed in a pile where it will heat and rot the straw and destroy the weed seeds. Then in spring, just after the snow has gone and before seeding begins, I would spread it thin upon the land, at the rate of about ten tons per acre. This I would plow deeply enough to cover all manure, then harrow and roll, and afterwards drill in the wheat.

CHAS. THOMAS,
Cameron Municipality.

Best All-round Paper.

"The 'Farmer's Advocate' is the best all-round farm paper I ever saw."

GRAFTON, N. D. FRANK McAULEY.

Tillage.

At this season of the year tillage is a question of vital import with the majority of our readers. In this new country, where thousands of farm who never served their apprenticeship, we feel that too much can scarcely be said on this important subject. Years when the rainfall is conducive to heavy harvests on our present productive soil, the matter of tillage may make but little difference in the fullness of granaries; but who in the spring-time can tell what the summer will be? Should a dry spell come, the well-tilled field will continue to make satisfactory progress owing to the condition of the soil, which allows but little water to waste through evaporation. Most of us know that tillage changes the size of the soil particles, and the change in the size of these particles largely determines the temperature of the soil, and also its power to hold moisture. A lumpy soil, during a dry spell, exposes unnecessary surface to the hot winds, and allows too much warm air to come in contact with the tiny rootlets, and thus robs them of moisture, while at the same time the hard lumps prevent rootlets from penetrating freely and obtaining their natural food supply.

Tillage effects the texture, temperature, moisture, air supply, and number of weeds of the area tilled. Texture deals with the size of the soil particles and their relation to each other, and as the size of the particles largely determines the water-holding capacity of the soil, its importance will at once be seen. When land is in such a condition that the harrow or cultivator pulverizes it freely, it is in good shape for seed-bed preparation, and the surface cultivation which is given at that time will form a loose mulch and thus conserve what moisture is beneath for the future needs of the crop.

In considering the question of soil temperature in connection with tillage, it has been found that the stirring of the soil, so as to allow the warm air to permeate the seed-bed, hastens germination and causes the fermentation of insoluble plant food, so as to render it in a form suitable for the young plants to feed upon. Weeds rob the soil, and harass the farmer in many ways. They increase the effects of droughts by drawing moisture from the soil without in any way giving compensation for it; they deprive economic plants of light and air, which virtually means life; they consume a large amount of plant food; they furnish a nidus for resting spores of certain fungi, and a breeding ground for insects; they introduce impurities into harvested crops, and they entail a great amount of extra labor, as every farmer knows. The two easiest periods in which to kill weeds are, first, just after they have germinated; at this time tillage will kill them by the thousand; and, second, when they are in blossom.

The Lumber Combine.

Prior to leaving Winnipeg for the East, Hon. Thos. Greenway, in an interview ridiculed the idea that there was no lumber combine. He said:

"The country dealer who is a member of the Western Canadian Lumbermen's Association must buy only from the honorary member; he must sell only at the price fixed by the association; he is prohibited, except under stringent restrictions, from doing business outside the district allotted to him; he is forbidden to do contracting, or to supply lumber on a lump sum basis, and he is liable to heavy fines or to suspension by the Secretary-Treasurer and ultimate expulsion from the association if he violates the regulations. On the other hand, it is provided by by-law that honorary members shall not sell lumber, timber or other material usually sold in lumber yards to any firm or corporation other than to an active member of this association, subject to a fine of fifteen per cent. of the value of the lumber sold, in case of a sale to a retail dealer outside the association. Another clause specifies that suspended or expelled members shall be boycotted, and the next clause instructs active members to make their purchases 'only' from honorary members. The whole thing is most barefaced. The retail dealers throughout the country, the so-called active members, are not in favor of the combine. Many of them secretly rebel against the tyranny of the real masters of the association, but they dare not make a display of their feelings. The moment a member is suspended his supplies of lumber are cut off; he is virtually put out of business—ruined, in fact. The effect on the country generally is entirely disastrous. I doubt whether any other agency has taken or is taking as much money improperly from the farmers of this country as this iniquitous combine. The enormous advance in the price of dressed lumber during the last few years could never have taken place except through the operation of this combine. It has put the price up all along the line steadily; and the end is not yet. There may be a measure of competition in Winnipeg, but at country points the monopoly is absolute. New lumber yards are opened only with the consent of the association. If a man is daring enough to open a yard at a country point, in opposition to the dealer who is in the combine, the latter is instructed to sell

lumber below cost until such times as the inter-loper has been ruined, the association bearing the loss. Thus the country is completely tied up, with the result that every building that is erected costs more than it should. The burden thus placed on the people is an intolerable one.

"The association can be got after in various ways, and no time should be lost in resorting to every available means to break it up. It is perfectly obvious that the wholesale lumber dealers, in refusing to sell to any but members of the association, have placed themselves within the provisions of the criminal code. It is perfectly clear from clause 520 of the code that they are guilty of an indictable offence, and as such liable to fines running up to \$10,000.

"Under the tariff act of 1897, a judicial investigation into any case of apparent combination can be ordered; and the fact being proved, the Dominion Government is empowered to reduce or abolish the duties on the article as to which there is a combination."

Road-making Criticism.

To the Editor "Farmer's Advocate":

Sir,—In your issue of March 5th, 1903, there is a paper on good roads, accompanied by a picture called "Road-making on the prairie." The picture is a very good illustration of a very bad practice, and while the greater part of the paper is very good, yet with one-third of the words or space, more practical information could have been given. In the first place, the only use we have for the road-machine in the picture is in making roads on sidehills and up and down ravines. On the level prairie, and especially where sloughs and water-runs abound, they are no use at all. As for general use, there is no road so good as the level prairie sod, untouched by plow, scraper or road-machine. The grass catches the first snow, and is excellent for a sleigh road, while a turnpike is generally bare. If the weather is wet the latter is always greasy and almost impossible for a horse to hold his feet. If it is dry it powders up, and under no circumstances does breaking up the tough prairie sod do anything but injure the quality of the road. The low places and waterways are the only parts to work on, or, at least, they require attention first. This can best be done by the plow and scraper, mostly the wheel scraper, and the work accomplished with these will be useless unless proper provision is made for the water to flow past the obstructions thus made. Good substantial culverts and bridges should be properly placed wherever a Government official, practically capable of doing so, can be had to make out the specifications. The common soil makes good ballast, and a coat of gravel, not less than one foot deep, should form a road-bed eighteen inches above high-water mark. The work could be let by tender, and bonds taken for a proper carrying out of the same. There has been thousands upon thousands of dollars spent and laid out on these same road-machines and their manipulation, on ground over which I am constantly driving, which is worse than useless. The part of the road they were used on is made worse than before, and they invariably quit just where they should have started, viz., at every water hole or runway. Do the needful thing first, and leave well enough alone. Of course, this foolish business puts money into the hands of the manufacturers and the salesmen, and gives a nice little remunerative job to the operators, etc., but it is the worst kind of economy to practice; a detriment to the country, and a loss and inconvenience to the people.

J. D. GALL,
Greenfield District.

Spring Cultivation.

The spring cultivation desirable on land that has been fallowed the previous summer should be enough to ensure a good seed-bed and kill any weeds that may be started; the seed to be sown with a drill about three inches deep. Land that has been plowed from the stubble the previous fall I would treat in the same manner, only with a little deeper sowing. That which had to be plowed in spring I would turn deep enough to not miss any weeds (say five inches), and on stubble apply the harrow twice, and on sod four times, sowing up to the plow each day.

The summer-fallow is absolutely necessary to rest the land and have wheat ground ready for the next spring. It should be done once in four years.

I consider rotation of crops necessary, but have had no experience with root or fodder crops, but know they are a great advantage to the land if worked enough to keep weeds down. I generally take a crop of wheat, then one of oats, then another of wheat, then summer-fallow again; or often two crops of wheat, then one of oats, owing to wheat stubble being stripped in fall in time to plow, when oat stubble is not. Spring plowing is best for killing weeds, and necessary to keep down sweet grass.

H. A. FRASER,
Hamiota Municipality.

Convenient and Inexpensive Farmhouse.

I am thinking of building a house. Could you publish some plan of a simple, convenient farmhouse? I would prefer a plain square building, substantial, yet at as small cost as possible. I would like it arranged for a furnace in basement; one set of stairs, one sitting-room, dining-room, kitchen, pantry, bathroom, and five bedrooms. I would prefer the bathroom to be downstairs, as I think the water can be got to it more easily, also less danger from frost. SUBSCRIBER. Cochrane, Alta.

The above is but one of several requests recently received for plans of farmhouses, with cellars, etc. Instead of giving a specific answer to the above inquirer, we have prepared a plan that we believe will be found suitable for many of our readers contemplating building. The plan given is for a frame house, 22 feet by 30 feet, with a summer kitchen or woodshed, 10 feet by 12 feet, at the rear. Of course, the plan could be enlarged or changed to suit individual circumstances, and as much ornamentation put on extra as desired. In this country, where heating is such a large item, it is foolishness to build a house larger than is absolutely necessary. A brief description of the plan may be helpful. The front door opens into a hall, from which open the parlor and the kitchen. The front stairway starts in the corner to the left of the entrance. About six easy steps round the bend leads up to the landing, with a straight stair from there to upper hall. A back-stair from the kitchen leads up to the same half-way landing as the front stair. The cellar stair goes down from kitchen between the hall door and the back stairs. The kitchen is the largest room in the house, with a 6x6 pantry off one corner, rearest stove and sink. It may be used for dining-room in summer while the cooking stove is in the summer kitchen. The kitchen chimney is inside back wall, so that when outer shed is used for a summer kitchen the same chimney can be used. The room off the parlor could be used for dining-room in winter, and back parlor or bedroom in summer, and might be connected with the parlor by large folding doors. Upstairs there could be four bedrooms, a small sitting-room at head of stairs, which might open into balcony over the veranda, when that useful and ornamental addition was put on. A balcony is very serviceable for airing bedding, clothes, etc., and saves carrying them up and down stairs. At end of hall the plan shows a storeroom, or bathroom, if such a comfort can be provided. In winter, the kitchen stovepipe could be brought up through this room before entering the chimney, which is shown in the corner of room. In the cellar a galvanized iron cistern could be placed under the kitchen sink, where a small pitcher pump could be placed. With a furnace in the cellar, it would be necessary to partition off a portion for storing vegetables and roots, and another for milk, butter, preserves, etc., as the furnace is liable to keep the cellar too warm, and necessarily gives rise to considerable dust. The furnace should be placed about the center of the building. For safety, the furnace chimney should be carried down to the cellar floor and the connection made direct from the furnace, but this plan wastes a great deal of heat, and we could take the furnace pipe up through a corner of the front room and into the front bedroom, where it would enter the chimney. There are many good furnaces made, or a good, thick, box-stove for burning three-foot wood can be used for a furnace by enclosing it in a brick chamber, from which the hot air would be conveyed through tin pipes to various parts of the house. To reach the registers on the upper floor the tin pipes are made to fit in the wall between the studding. The air chamber of furnace must be supplied with fresh air (cold air); one pipe may be taken from outside and another from the floor of one down-stairs room, entering at the bottom of the furnace air chamber, the hot air pipes emerging from the top of chamber. Of course there must be a proper system of check drafts in order to control every pipe. When a cellar is wanted and a furnace is to be used, it is advisable to put the foundation down on the clay, especially so in the case of stone houses.

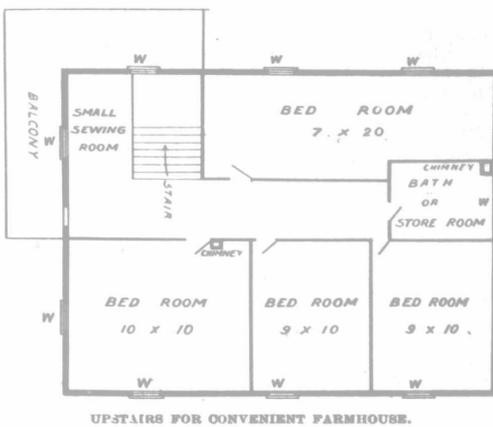
Specifications called for in such a plan as above, here illustrated, would be as follows: For girders, 1 piece 6x6 inches by 16 feet, and 1 piece 6x6 inches by 14 feet; joists for two floors, 48 pieces 2x8 inches by 22 feet; ceiling and rafters, 72 pieces 2x4 inches by 18 feet; studding, 250 pieces 2x4 inches by 16 feet; 4,500 feet shiplap; 2,300 feet siding; 10,000 shingles; 1,700 feet flooring; 1,000 feet common boards for frames and cornice; 2,300 feet siding extra, if boarded on inside; and 6 rolls of brown building paper; 12 rolls tar paper, for floor, roof, and outside wall, and a few cedar or oak posts in cellar to support the girders.

A few further explanations may be helpful. Imbed a piece of 2x4 inch on top of stone wall, upon which to rest the floor joists; put joists in place and then fill between joists with mason-

work, flush with the top, tight up to floor. Lay shiplap floor, then a 2x4 inch, upon which to set the studs.

For the floor, one layer of shiplap, then tar paper, and then flooring.

When sand and lime and labor are cheap, the outer walls may be back plastered; otherwise put shiplap on inside of studs, then brown building paper (tar paper used here stains the plaster); then stripped with 1x2 inch strips, and lath and plaster. Outside walls, shiplap, tar paper, and siding.



UPSTAIRS FOR CONVENIENT FARMHOUSE.

A seven-foot stone wall for such a house would require about 12 cords of stone (128 cubic feet to the cord), but a cord will only lay 100 feet in the wall. One yard of sand and four bushels of lime are necessary for each cord of stone. A mason should lay one cord of stone per day, with everything supplied to his hand. For a chimney it requires 40 bricks per foot to make an 8-inch flue.

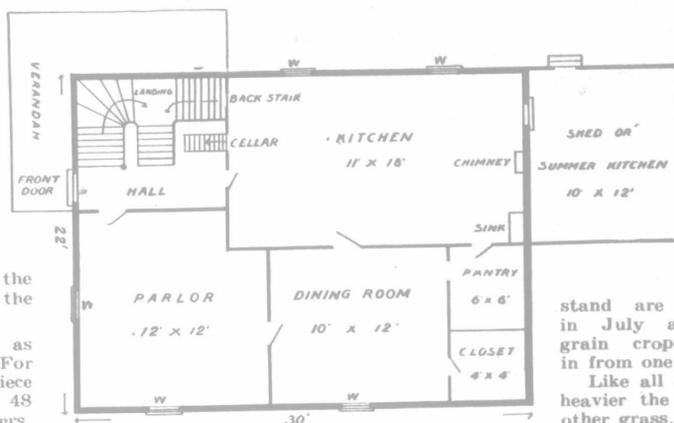
With very little changes this plan could be made to suit Subscriber. The five bedrooms could be arranged upstairs by converting the bath or store room and part of the 20-ft. bedroom into a fifth. A small bath-room could be made in a corner of the large kitchen without changing the main plans of the house.

Stone Granaries.

To the Editor "Farmer's Advocate":

Sir,—Your Brandon subscriber need have no fear of building a stone granary, as the grain keeps well in them; in fact, better than in frame buildings, unless they are double boarded; as the rain sometimes beats through even the best of siding. I have one myself, and there are several in the district where I live, and I have yet to hear a complaint about them.

There is not the least danger of "sweating" in a stone granary; for if grain is put in dry there is no moisture to evaporate from it, and, as the temperature of the wall and the inside of the building is about the same, there is no danger of moisture condensing on the wall. A stone is no more liable to "sweat" in a granary than it is on the prairie. By all means put up a square building, rather than round, as the waste of time, flooring and roofing in a round building amounts to more than the saving of material in the outside



GROUND FLOOR PLAN FOR CONVENIENT FARMHOUSE.

wall, and that is the only place where there is anything saved.

If there is a bank near the building site, it will save many a hard lift to put the building in the side of the bank, and make it two stories high, and drive in on the upper floor and empty the grain down into the lower bins.

No fear of moisture. It has proved a success here, and more of the same style are to follow. Virden, Man.

The Telephone in Australia.

Free-handed Australia has found little difficulty in adopting the telephone as a department of the post-office service. The several colonies, now States of the Commonwealth, nationalized the new means of communication soon after its introduction, and now the Federal Government has taken it over. One result of Federal administration has been an equalization of charges. Three different kinds of telephone service will be provided, at different rates. The business telephone service will give the unlimited use of the telephone at all hours, within the limits of the municipality, at an annual charge of \$40. For a similar service, including both the town or city and a suburban area of considerable radius, the annual charge will be \$50. For private residences the rate, without any restrictions as to the number of messages, or limitations as to hours, is fixed at a uniform charge of \$25. In the latter case both the town and suburban service would seem to be included. No provision seems to have been made for long distance telephony, possibly because the centers of population are so widely scattered. The country is fairly well telephoned. Few, if any, towns of 3,000 are unsupplied with an exchange.

The Telephone and Crime.

The rural telephone is appearing in a new role. It beats bloodhounds as a tracker of criminals. Union County, in North Carolina, recently was visited by a gang of desperate burglars. After some exciting episodes they were hunted down and captured. When it came to awarding the credit, mention was made of the bloodhounds employed at one stage of the chase. Thereupon a correspondent of one of the local newspapers pointed out that Union County has ten telephone exchanges, and between 300 and 400 telephones in the country districts. "A few minutes after those desperadoes opened fire upon the officers at Monroe, just before daylight, the news was transmitted by telephone to the neighborhood exchanges, and in a few minutes more it reached every nook and corner of the county. Everybody was then on the lookout and ready to spot any stranger or suspicious character that might be seen in the community, and they were therefore enabled to assist the officers in getting quick information in regard to the whereabouts of the criminals."—[Toronto News.

Western Bye Grass.

With well-dressed seed any ordinary grain seeder will sow it without much trouble, but a seeder with a "vertical feeder" is better. I have sown it for the last thirteen years with a "Superior" drill as easily as any grain. It takes the seeder set at about one and a half bushels to sow it right.

Fifteen pounds of sound, clean seed is about the right quantity. I may here remark that poorly-dressed seed should be avoided, for two strong reasons: First, unless the seed is properly cleaned it cannot be sown regularly; being naturally light, if there is the least amount of broken straws it will not run to the feeders. Second, if there are foreign seeds they are generally heavier, consequently good money is paid for dirt.

On ordinary good loam soil it can be safely sown in spring, along with grain crop. On such soil I never yet

missed a good catch when sown in spring. On light, sandy soil, liable to drift, it is not safe to sow in spring. One way for such soils is to leave the seeding off till the grain is high enough to prevent drifting, then drill in, across preferable. But probably the best way is to plow the land, say six inches deep, and drill in when the soil is nice and moist, any time between June and the fall, with one-half to one bushel of any sort of grain that is most convenient. This mixture, when grown up, might either be pastured or mown for fodder. The only dangers in getting a good stand are soil drifting, and extra drought in July and August, when sown with a grain crop. It is always better to drill in from one to three inches deep.

Like all other grasses, the better the soil the heavier the crop; but I am not aware of any other grass, or grain, that adapts itself better to all conditions of soil from light sand to sour and alkaline soil. It has put a sod on a bed of alkaline soil where no grain would grow, and since plowed up three years ago, that plot grows grain as well as any other part of the field. It was eight years under grass.

Length of time it continues to give a paying crop, three or four years, with our naturally dry climate. After that time the soil gets packed too hard, consequently the moisture evaporates quickly in dry weather, otherwise the plants hold their own for nine or ten years.

As a pasture it gives good results, especially

for horses. My horses are turned out on it about the beginning of June, day and night, except when in harness. They sweat more than when fed on dry feed, but are always fat, and never have sore shoulders.

I always pasture my hay field till about 1st of June. Store stock will hold their own on it after the snow leaves. In fact, the greatest objection some farmers have to it, that in spring the neighbors' stock for miles around gather on it.

Wallace Municipality, Man. K. McIVOR.

Cultivation, Moisture, and Manure.

Where land is inclined to drift, as little cultivation as possible should be given in spring to the fallow of the previous summer. On heavy soil, I would harrow well, and if very hard or weedy, use a cultivator. On fall-plowed land that has been turned early in the season and well harrowed, if light soil no further cultivation need be given, but if heavy, light surface cultivation is desirable. With land that is spring-plowed, three inches is about the right depth. After plowing, harrow, then sow and use the soil packer. So far summer-fallowing is the only method used with us for the purpose of killing weeds and conserving moisture for next year's crop, but I believe that land which has produced a crop of corn or roots, and cultivated so as to keep weeds down, would be just as good for all purposes as summer-fallowing, treating it in the spring same as summer-fallow. On heavier lands seeding to grass and bringing into cultivation in a few years again would, for a few years, do without summer-fallow, as the decaying roots would hold the moisture, and I believe would give us that bright sample of wheat which is considered No. 1 hard. From our present method of summer-fallowing we get a whitish wheat which they grade as Northern.

As to rotation of crops, I believe we will have to adopt that system soon. So far there is practically no method with us, but I would suggest the following rotation for heavy land: First, seeding down, then two crops wheat, followed by one of the coarse grains, such as oats, barley or spelt; then if possible a root or corn crop, and wheat again for two crops; then a coarse grain crop and seed down with it; then repeat as before. For light land two crops wheat and seed down, as coarse grains do not prove profitable on light soils.

In maintaining moisture, my experience has only been with summer-fallow, worked as early as possible and well harrowed, then allowing cattle to run upon it, and sowing, if necessary, some crop to entice cattle on it, but usually weeds enough grow to do that. I know of a field that was planted to corn and well cultivated, that gave better yield of wheat for the two following years (they were dry years) than adjoining summer-fallows.

As to manure, my opinion is that all crops are benefited by it. Certainly wheat is. I had a knoll of very light land near a gate, which my cattle made a sleeping ground, and it was well covered with manure and very hard; so hard that the shoe-drill made very little impression, but it gave a grand crop, stood up well and was well filled. For all practical purposes, manure drawn from stables during winter and spread lightly is best, but I had good results from drawing well-rotted manure on to my summer-fallow, after being well plowed and harrowed, and used as a mulch. I could see where I left off all the growing season. This was on light soil.

W. J. RATTRAY.
Pipestone Municipality.

The Best Breed.

It is quite common to hear the question asked as to which is the best breed of cattle, sheep, etc. Many people have an idea that those who are considered authorities on live stock should be able to answer in a few words. This is a great mistake. Men who have given the most study to this subject have concluded that there is really no "best" breed, but that often greater difference exists between individuals of the same breed than between representatives of a different breed. Of course, in cattle, for example, it must be understood that we have two distinct classes, one for beef and the other for dairy purposes. Of the latter, Holsteins have become noted for a large flow of milk, Jerseys for a high percentage of butter-fat, and Ayrshires for a large amount of casein, that substance which enters most largely into the composition of cheese. While these general characteristics are peculiar to these breeds, individual Holsteins will be found that give richer milk than some Jerseys, and Jerseys and Ayrshires will be found that produce more pounds of milk than Holsteins. Similar comparisons may be made with the beef breeds, with hogs, sheep and other classes of stock, so that no one can correctly say that there is a "best breed." Persons have their individual preferences for certain breeds or types, and success with any of them largely depends upon the intelligence and care with which they are reared or selected and handled.

Gasoline Engine Enquiry.

Seeing Mr. Vermilyea's letter in the "Farmer's Advocate," criticising Mr. John Renton's article on gasoline engines, I wish to ask a few questions about a gasoline engine, as I intend purchasing one this year.

Please let me know the standard makes, and which you think is best?

Also, would a twenty horse-power gasoline equal a twenty horse-power steam?

Mr. John Renton says that gasoline engines are all right for farmers, but are too slow for a regular thresherman's business. What are his reasons?

What firm would guarantee their engines to develop twenty-five per cent. more than their rated horse-power?

Would a twenty-horse gasoline be power enough to run a 32-46 separator (Battle Creek Advance or Waterloo) with blower, feeder and high bagger?

H. H. BILTON.
Wallace Municipality, Man.

Reply.—There are numerous makes of good portable gasoline engines, and I would not care to say which is the best, as there is room for discussion on this point, but any reliable Winnipeg jobber would give you information regarding the relative qualities of the various engines they handle.

The proper way to arrive at a correct estimate of a gasoline engine's horse-power, is by ascertaining the size of the cylinder and the stroke of the piston.

Of course you could hardly expect any firm to guarantee their engines to have a capacity of twenty-five per cent. over the quoted horse-power, as their object in allowing this extra power is to give general satisfaction and to be on the safe side, thereby protecting their reputation. An engine or any other machine working to its utmost capacity will not stand the strain for any great length of time.

Steam horse-power is reckoned at ninety pounds pressure to the square inch, and by firing up many engines can be raised to 150 pounds, thereby increasing the horse-power; whereas, with a gasoline engine, when you get to the extent of your rating, you only have the surplus power allowed by the company, and the little extra horse-power which may be acquired by changing the engine's governors to give a higher speed. However, it is not advisable to increase the rate of speed, as this is hard on the engine.

I am of the opinion that a 20 h.-p. gasoline engine would furnish enough power to run a 32-46 separator, with blower and high bagger attached.

CLARENCE VERMILYEA.
Winnipeg.

Tillage and Manure.

In a recent interview with a representative of the "Farmer's Advocate," in which the question of soil cultivation came up, Mr. Jas. Yule, Manager of the Van Horne Farm, Selkirk, said, that in his opinion land which had been well summer-fallowed last year needed no preliminary cultivation this spring to secure a seed-bed. He would apply the press-drill and sow the seed as soon as the land was dry enough to work on. If it had not been harrowed after being plowed the previous season, he would harrow twice ahead of the drill, but the surface should not be made any finer than was necessary to obtain a good seed-bed, as loss was apt to ensue from blowing.

On land that had been plowed from stubble the previous fall, two harrowings before sowing was desirable. The amount of cultivation that should be given after drilling would depend entirely upon the texture of the soil. If it were heavy clay he might use the roller. On spring plowing he would either roll, to pack the lower layers of soil, and afterward harrow before sowing, or harrow first and then roll. This plan, he intimated, had given excellent results on the Prairie Home Farm, and we see no reason why it should not, because with a mellow surface for a seed-bed and the lower strata packed to hold the moisture, the land should resemble fall plowing much more in its character than if not rolled.

Summer-fallowing, he believed, should be carried on for two reasons: First, because it presented a splendid opportunity of killing weeds; and, secondly, on account of the opportunity it afforded of having a field in ideal shape for the approaching crop. It was with great difficulty that fall plowing to any extent was got done on many farms, and summer-fallowing offered a means of preparing a portion of the farm for a crop before the great rush came on.

Mr. Yule emphasized the great importance of summer-fallowing well. The best method, he believed, was to skim the surface once about three inches deep, and harrow as soon after seeding as possible. When the weeds had grown up somewhat, and before they had time to seed, he would plow and again harrow, being careful to have this done before the harvest came on. The claim made by some farmers, that the summer-fallow

gave too much straw, had not been his experience.

Although a crop-rotation was difficult to follow in some respects, he believed it was very desirable under ordinary conditions. Where wheat was raised largely for the market, and a reasonable number of stock were kept, the rotation might be wheat, wheat, oats, barley and grass.

In handling manure, Mr. Yule believed the best method was to move it direct from the stable to the field. This entailed less labor, and was in every way the most desirable course to follow. The best place to put it, he believed, was on the summer-fallow. Some claimed that it kept the soil too open, but the time was coming, in his opinion, when the practice would become more general.

Injury by Weeds.

Without doubt, the greatest injury done by weeds is in robbing farm crops of their plant food and moisture. In this country, where dry summers are so disastrous, it is very important that no controllable water should be lost to the soil. From experiments conducted some years ago at the Ontario Agricultural College, it was learned that by allowing ten plants of wild mustard per square yard, there would be drawn from the soil and evaporated into the atmosphere over twenty tons of water per acre daily. Other experiments, conducted by Prof. Snyder, Minnesota, have gone to show that a crop of wild mustard will, also, take from the soil as much phosphoric acid and potash, and nearly twice as much nitrogen, as an ordinary crop of wheat.

In addition to the foregoing, great damage is done to farm crops by shading and crowding. In the building up of the plant-tissue, it is necessary that an abundance of sunlight should be supplied. The weeds generally grow faster than the rest of the crop, and soon they overshadow, and, to a large extent, crowd out their more valuable neighbors. The cost of these intruders means an enormous sum to the farmers of Manitoba and the West, and, hence, too much attention cannot be given to the importance of sowing clean seed and adopting methods of cultivation which will eradicate those already established in the soil.

Weed Seeds.

A few helpful words regarding the identification of the seeds of some noxious weeds should be in place at this season.

During the past few weeks the writer has examined many samples of grass and clover seeds taken from stocks offered for sale at various points. It is a lamentable fact that in most cases these have been found to contain large quantities of the seeds of many species of troublesome weeds. Similar examinations in previous years have proven that such is usually the case.

Farmers have learned through experience that in dealing with weeds, the old adage, "An ounce of prevention is worth a pound of cure," is an exceedingly wise one, and all know that days and weeks of hard and discouraging labor with the hoe, the spade and the cultivator, may be avoided by sowing clean seed; yet, few have learned to identify the seeds of many of our worst weeds. Most of us are familiar with the seeds of wild oats, wild tares, chess and perhaps, couch grass, and a few others, which are as large, or nearly as large, as the cereal grains; but the appearance of the seeds of ragweed, bindweed, false flax, peppergrass, white cockle, and many others, is quite unknown, although they are even more distinct in character than peas, oats, wheat, and barley. With the aid of a good magnifying glass the distinguishing characters of the various weed seeds can easily be seen, and every farmer should have a glass for this purpose. A suitable one can be bought for from 50 cents to \$1.00.

[Note.—A very good magnifying glass for this purpose may be secured by securing one new subscriber for the "Farmer's Advocate."—Ed.]

In no case should seed be purchased (especially grass or clover seed) until a sample has been carefully examined by the intending purchaser, and he has satisfied himself that it is comparatively free from weed seeds. Let it be remembered that examining a sample does not mean pouring it from one hand into the other, giving it a casual glance and saying, "I guess that is pretty clean." To examine a sample it should be spread out on a sheet of white paper and carefully gone over, so that every seed is seen. All the seeds which are not true to sample should be picked out, and afterwards separated into their various kinds. Then you have a definite knowledge of the amount of the different impurities in the sample, and can easily calculate the amount in a bushel, or in the quantity which you sow per acre.

Following are descriptions and illustrations of

a number of the weed seeds most commonly found in grass and clover seeds, and of a few which are also found in seed grain. In each case the large drawing represents the seed as seen under a good magnifying glass, and the small drawing to the right shows its natural size.

In Fig. 1 is seen the seed of Canada thistle (*Cnicus arvensis*). It is of a greyish color, is about one-eighth inch long, rather smooth, and, when fresh, has a tuft of long silky hairs attached to its upper end.



1—Canada Thistle. 2—Perennial Sow Thistle.

Fig. 2—Perennial sow thistle (*Sonchus arvensis*). This seed is of a deep reddish brown color, is about one-eighth inch long, has a corrugated surface, and a tuft of silky hairs at its upper end.

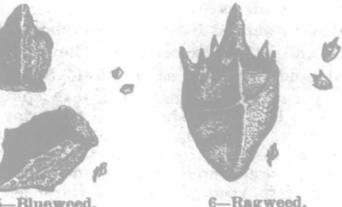
Fig. 3—Ox-eye daisy (*Chrysanthemum leucanthemum*). The seed is one-twelfth inch long, and is ribbed lengthwise, with alternate white and black ribs. It is very commonly found in timothy seed.



3—Ox-eye Daisy. 4—Burdock.

Fig. 4—Burdock (*Arctium lappa*). The seeds are of a greyish brown color, with darker spots. They are about three-eighths inch long, and have a somewhat roughened surface.

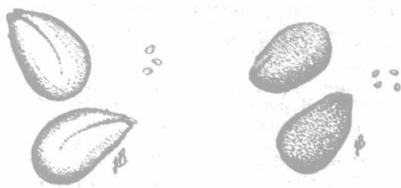
Fig. 5—Blueweed (*Achium vulgare*). The seeds are grey, one-eighth inch long, and roughly angular in form.



5—Blueweed. 6—Ragweed.

Fig. 6—Ragweed (*Ambrosia artemisiifolia*). These seeds vary in color from green to brown, are about three-sixteenths inch long, and have a sharp tip, surrounded by a circle of spines. They are found in abundance in seed grain, as well as in grass and clover seeds.

Fig. 7—Peppergrass (*Lepidium Virginicum*). Seed is of a reddish brown color, rather flat, one-sixteenth inch long, and when viewed with a lens shows a pimpled surface. It is one of the most common impurities in timothy and clover seed.



7—Peppergrass. 8—False Flax.

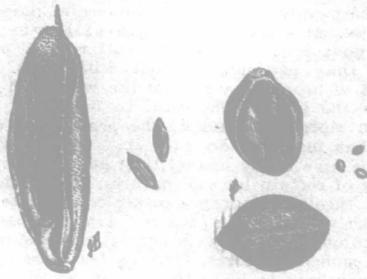
The seed of false flax (*Camelina sativa*), Fig. 8, is somewhat darker in color than that of peppergrass, and is smaller and not so flat. It is most abundant in timothy seed, but is also found in clover.

Fig. 9 shows the seed of bindweed (*Convolvulus arvensis*). It is black, rather angular in form, and has a rough surface. It is about the size of a small vetch seed. Every farmer should know this seed, because bindweed, when it has once obtained a foothold, is probably more difficult to eradicate than any other weed known in the Province.



9—Bindweed.

Fig. 10 represents the seed of chess (*Bromus secalinus*), which is familiar to most farmers, and is commonly found in seed wheat.



10—Chess. 11—Foxtail.

Fig. 11 gives back and front views of the seed of foxtail (*Setaria glauca*). It varies in color from yellow to a deep brown, is about one-eighth inch long, and has a slightly wrinkled surface. It is very common in grass and clover seed.

The seed of curled dock or yellow dock (*Rumex crispus*) is shown at Fig. 12. It is shiny brown in color, and triangular in form, with a tapering point, and is found in abundance in clover seed.



12—Curled Dock or Yellow Dock. 13—Wormseed Mustard.

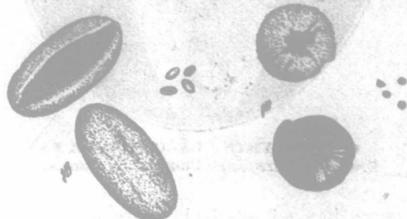
Fig. 13—Wormseed mustard (*Erysimum cheiranthoides*). This seed is very small, is of a yellowish brown color, and has a furrow on one side. It somewhat resembles hulled timothy seed, and is found as an impurity in timothy and clover seed.



14—White Cockle.

The seed of white cockle (*Lychnis alba*), Fig. 14, is kidney shaped, light grey in color, and is covered with small tubercles, which give it a very rough surface.

Fig. 15 shows front and back views of the seed of rib grass (*Plantago lanceolata*). It has a rich brown color, is shaped somewhat like a canoe, and its surface is smooth and shiny. It is exceedingly common in clover seed.



15—Rib Grass. 16—Lamb's-quarters.

In Fig. 16 are shown two seeds of lamb's-quarters (*Chenopodium album*). These seeds are quite black, but in some cases a portion of a light hull adheres to the seed, giving it a greyish appearance.

The above descriptions are necessarily very brief, but in connection with the illustrations they should enable a farmer to identify any of the species considered.

J. BUCHANAN.

Gasoline Engines.

To the Editor "Farmer's Advocate":

Sir,—I see that a Mr. Vermilyea takes exception to some statements in my letter to the "Farmer's Advocate." I said that I considered that gasoline engines were overrated in power. Mr. Vermilyea admits this to be the case in all but the standard makes. Now, Mr. Editor, I suppose this is the one that Mr. Vermilyea sells. On this point I gave our own experience, as well as the experience of others. Among them was a Winnipeg dealer in gasoline engines; he said that if a party wanted a 14 h.-p., he furnished him with a 16 h.-p.; if he wanted a 16 h.-p., he furnished him with a 20 h.-p. Why did the dealer do this? Because the engine was overrated. Mr. Vermilyea says, "As would naturally be expected, the larger engine adds materially to the fuel cost, and for this reason a size too small is bought." "Here again Mr. Renton is mistaken. No matter how large the engine is, it only consumes gasoline in proportion to the amount of

power developed, one-eighth gallon per horse-power per hour being the average quantity of gasoline used." Mr. Vermilyea may know a good deal in theory about engines, but his theory and practice are too very different things. "Speaking of middlemen's profits, Mr. Renton says that he believes they are larger than the manufacturer's. Now, if Mr. Renton was buying direct from the manufacturer, he would find that, counting in his time and trouble, the cost would be greater than it is when he buys from the Winnipeg dealer." Mr. Vermilyea says, "This statement may appear rather strange to some farmers." Yes, sir, it is strange, it is far more than strange. Allow me to tell Mr. Vermilyea that after having purchased a gasoline engine from a Winnipeg middleman, I found that I could have purchased the same make of engine for half the money, and that I could have bought a Canadian-made engine for less than half, fully warranted to give satisfaction. Mr. Vermilyea talks about "the time and trouble" in dealing with the manufacturer. Why, sir, a two-cent postage stamp, a sheet of paper and an envelope will bring the farmer in communication with any maker in the United States or Canada. This would not take much time or trouble. This reminds me that some years ago a wheat buyer told me that he just had instructions from his firm to discourage farmers from shipping their own wheat! Why? I will allow every farmer to answer this question for himself; it will not be a hard one. Mr. Editor, I wrote the letter I did, giving the farmers of this country the benefit of our experience, and would just say here, that many years ago I arrived at a conclusion, and it was this, that a very little experience was worth far more than pages of plausible theory, written by interested parties. A word to Mr. Wm. Wallace: I would say that I gave the public our experience for what it is worth. Mr. Wallace can obtain prices by asking for them. The makers are always pleased to reply when written to.

JOHN RENTON.

Braeside, Winchester Municipality.

Two Styles.

The Manitoba and Northwest "Farmer's Advocate," in the creditable Immigration number, presents on one page a pair of pictures which afford a curious contrast. One is of a settler turning up the prairie sod with a plow drawn by four oxen, our old friends Buck and Bright, with their brothers. The other is of a steam plow used by a Moose Jaw farmer. The engine is of thirty horse-power. So it are attached from seven to nine plows, and the machine can break twenty acres a day. The owner, it is noted, used Souris coal, and found the engine cost him \$5 per day of ten hours.—[The News, Toronto, Ont.]

Dairying.

A Large Dairy Farm.

In a short time Winnipeg will be able to boast of having the largest dairy farm in America. With a capital stock of \$200,000, the Munroe Pure Milk Company, Limited, has been formed by the union of the Munroe Creamery, of St. James, and the Pure Milk Company, of Winnipeg. The management of the big concern will be under the control of Mr. David Munroe and his sons, who have had a herd of nearly two hundred cows, seventy-five of which are pure-bred Holsteins. Several more have already been purchased, and it is intended to have a herd of 600 cows on the 1,750 acre farm on the south bank of the river, near the city. Six new barns are to be built next summer, each to be 265x40, and 38 feet high.

As Mr. Munroe has been having splendid success in growing corn for fodder, about 125 acres will be planted when the season arrives. The milk will be purified at the farm, according to the most up-to-date methods, and afterward bottled and stored in the company's refrigerator in the city, from whence it will be taken in wagons to patrons.

Use More Milk.

When the food value of milk is considered, it is remarkable that it is not more largely used by those who have the facilities for producing it at first cost. Comparing its flesh, fat and bone forming qualities, and the average price at which it is sold, with other foods on the market, the advantage is largely in its favor. Nothing is found on the farm is more easily digested than pure sweet milk. It is nature's combination for growing animals, arranged in the proper proportion. In an average sample, we find almost four per cent. of protein, or flesh-forming substance; five of carbohydrates, or starchy matter; almost four of fat, and one of mineral matter, consisting chiefly of phosphates and chlorides of potash, lime and soda.

A New Milk Record.

After doing creditable work for a number of years, the Holstein cow, Sadie Vale Concordia, owned by Messrs. McAdam & VonHeyne, N.Y., has at last broken all records for milk production. Her performance consisted in producing 695 pounds 3 ounces of milk in seven days. According to the methods used by Holstein breeders in calculating the butter yield from the fat content of the milk, this performance would give Sadie Vale 30 pounds 10 ounces of butter to her credit. We are not advised, however, that this amount of butter was actually made from the amount of milk given. The lowest record ever made by this cow was 317 pounds 10 ounces of milk in her two-year-old form. The performance at her last official test will stand for a time as the best on record, but with the improvement that is taking place in our dairy stock, we may expect other cows, jealous of this performance and true to female instinct, to equal and surpass the record of the notorious Sadie Vale Concordia.

Death of Mrs. Jones.

Readers of the "Farmer's Advocate" interested in dairying, will learn with regret of the death, on April 7th, of Mrs. E. M. Jones, of Brockville, Ont., where she conducted successfully a large stock farm of Jersey cattle, that have been famous throughout America for many years. Stock of her breeding has frequently come to the West. Mrs. Jones was, perhaps, most widely known throughout the world by her little book "Dairying for Profit, or the Poor Man's Cow," thousands of which were distributed through the "Farmer's Advocate." Mrs. Jones was the wife of Mr. Chilton Jones, manager of the D. J. Jones' Shovel Manufacturing Co.

Apiary.

Beekeeping Intelligence.

To the Editor "Farmer's Advocate":

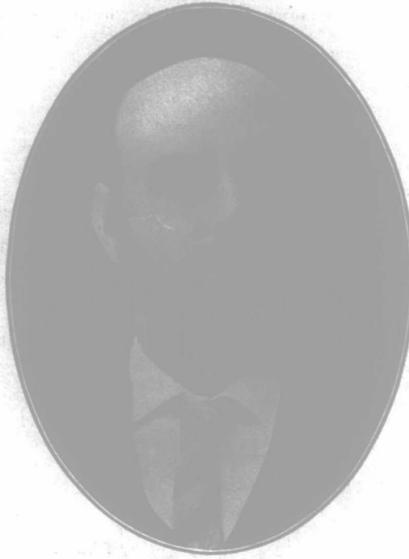
Sir,—In presenting you with a synoptical report for the past year in the apiary, we would say that, although not quite up to the average, take it all through it was fairly good. The quality of the honey was quite up to the average, and as a result not one dissatisfied customer, something which we think is worthy of our appreciation. The season, to say the least, was rather peculiar, and we cannot recall in all our years of beekeeping one just like it. In fact, when we come to think, it would be hard to recall any two seasons that were just alike, as far as experience in the apiary is concerned. It is this continual looking for the unexpected that removes the monotony and gives zest to beekeeping. Reports to hand give yields all the way from 60 to 125 pounds per colony, exclusive of winter stores. No doubt the condition of bees in spring, and the different qualifications of the beekeepers, had much to do with these results; but we believe that location has more to do with success in beekeeping than it generally gets credit for. As the physical features of the country change, so does the soil; also the flora to a greater or less extent. There are some flowers that are common to all or most all localities, that do not yield honey freely, only in certain seasons; hence, we conclude that certain soils or soil conditions enter into and become a factor in the production of honey. We often have descriptions of localities sent us, and our opinion asked for as to their adaptability for beekeeping. We prefer not to venture an opinion, from the fact that so much depends on the beekeeper; one might make a success where another would make a failure. The better way would possibly be to test the different localities, by introducing one or more hives of bees into each, and caring for them in an intelligent manner. To be able to do this, we must know something of their habits, and of the internal economy of the hives. What we term a hive, is not only nature's laboratory, where the nectar of the flowers is converted into honey, but it is the place where our domestic bees propagate their species, and there we find them working unitedly and harmoniously, each one doing its part in carrying out that law of nature.

In this numerous but well-regulated family in the hive, we find the mother, or what is termed the queen bee, who lays the eggs, and an army of nurse bees, who not only help to maintain the proper temperature for the hatching of the eggs, but prepare the food to feed the young bees until about six days old, when they get their last feed and the cells in which they spin their cocoons are sealed over. In this cocoon they remain for about twelve days, when they emerge fully-developed worker bees, twenty-one days having elapsed from the laying of the egg. There are,

also, the field hands or workers, who provide for the family's maintenance.

The amount of brood in the hive will depend upon the supply of food, the number of nurse and field bees, and the maintenance of the temperature, about 90°. The queen will rarely occupy combs that are not covered with bees. The amount of brood may run all the way from a few patches the size of the hand to four, six, eight, or even more full frames; the prolificness of the queen has much to do with it. Bees don't get into the hive as by magic, they get there by the process of certain laws of nature: should the beekeeper, through ignorance or neglect, violate these laws, he will pay the penalty. In the case of a weak colony, especially in spring, make sure that it has sufficient stores, that as few bees as possible may have to leave the hive in search of food, and that not only the entrance but the brood nest be equal to the demand of the colony, and proper means used for the conservation of heat. These things attended to, he will be rewarded by greater increase. In a few days after the young bees emerge from the cells, they take the place of the nurse bees, while they fail in to fill up the ranks of the field bees who are being depleted by death from old age and other causes, for be it remembered that the life of the bee is comparatively short, about forty or fifty days in the working season; hence, it is indispensable for the colony's prosperity that young bees be continually leaving the cells. It is only so far as the supply of young bees exceed the decrease that is continually going on among the working forces that the colony is really increasing in numbers. A weak colony works under great disadvantage, and will not build up even as fast in proportion to its numbers as a strong colony; hence, let our motto be strong colonies, ever and all the time.

As the hive becomes crowded with bees, and



C. I. DAYKIN, LACOMBE, ALTA.
President Territorial Dairymen's Association.

the queen has all available space occupied, preparation for swarming will be in evidence; drones will be making their appearance, as will also queen cells, where the prospective mother of the colony, among others, is raised. On the ninth day from the laying of the egg in the queen cell, it is sealed over; then the old queen may be expected to go off with a swarm to start housekeeping in new quarters. In seven days later the young queen will leave the cell, a fully-matured virgin queen, and after an interval of some six or seven days she will take her bridal tour, when she meets the drone or male bee, and if fertilized will begin laying in two or three days later. To Mr. McP., of B., we hope you will see where you made your mistake in beekeeping last summer, and be convinced that the division of your colony at the time it was done was a mistake. It was just getting into condition to do effective work; the bees were getting sufficiently numerous to care for the two or three thousand eggs that were being daily laid by the queen, and if left alone we have no doubt it would have swarmed about the last week of July, and both hives been in good condition for winter. One good colony is better either for increase or honey than two weak ones. We will assume that the queen in your hive was laying at the rate of 1,500 eggs per day at the time you made the division, which is inside the mark for a good queen. In two weeks she would have deposited 21,000, but as she might have been getting short of room, we will say 20,000. Now, suppose about this time a swarm issued, and it was hived on full sheets of foundation, in a couple of days the queen would be laying in her new quarters. About seven days after swarming the parent colony would have had a young queen, and about eight days later she would have been lay-

ing. With so many young as nurses, and plenty of room for the queen to perform her functions, they would have built up fast. Such is nature's way. In dividing the egg production was reduced by over one-half in the old colony; the nucleus formed would be in still a worse condition, assuming you had no foundation or queen. It would not only have to build the comb in the empty frames, but raise its own queen, and allowing all conditions to have been favorable, it would have been about forty-five days before any young bees could make their appearance, which left it no time to build up, as it would then be getting in to the last week in August. A virgin queen given at the time of division would have made all the difference between failure and success. We have had swarms come off in the first week in August, which had a surplus of honey when the season was over.

JAMES DUNCAN.

Franklin Municipality.

Poultry.

Prevention and Treatment of Parasites on Poultry.

Infestation is always worst in dirty, neglected runs and roosts, and such are a standing danger to more cleanly neighbors. Cleanliness and freedom will always put these pests under a disadvantage, not only of the nests, walls and floors, but also of the ceilings and perches.

To suppress these pests, the chicken-houses should be cleaned down at least once every six months, with a wash composed of hot lime and soft soap, in the proportion of one gallon of lime to one-quarter pound of soft soap, previously dissolved in boiling water. A good coating of this should be applied to the ceilings, walls and nests, the wash being liquid enough to run into every crack and crevice. The perches are best treated with boiling water and soft soap, or with an emulsion of kerosene. The more cracks and crevices there are in a chicken-house, the more liable it is to harbor numbers of these pests, and in these cracks, etc., they stand a chance of escaping the wash used.

The nests should frequently be changed to keep off fleas and other parasites. They should never be fixed, and relays of each should be at hand, so that they can be changed to ensure complete disinfection. Hot lime should be used for dressing the nest-box. Dusting the bottom layers of the nests with Persian insect powder (pyrethrum); sawdust or sand, soaked in naphthalene, is also very helpful in keeping clear of these pests. Wood shavings, or wood-wool, is more beneficial than straw in the nests, as no lice or fleas live in it, on account of the aromatic odor given off from the wood.

Regarding the infestation of the birds themselves, the best thing to use is "white precipitate, which should be sprinkled over the heads and necks of young chicks; but this should be done sparingly, as this poison is a strong irritant, and needs the greatest care in its use. It is best obtained as an ointment from the chemist. Hens selected for sitting should have a little of this rubbed under the vent, head and sides, and then well dusted with pyrethrum, as sitting hens are often greatly tortured by parasites and their young often lost by neglect of these very simple precautions.

Sand and road dust mixed with a little "paraffin" will generally keep the birds free from vermin, or "pyrethrum" can be used instead of paraffin.

Regarding "mites," the only way of remedying is to isolate the affected bird, especially if it be a cock, the disease being very contagious. The mites yield readily to treatment with "oil of cloves," rubbed into the affected parts, or a still more successful remedy is one part of "creosote" to twenty of lard or vaseline.

Care in these little things will probably entail a little more trouble, but when so much is at stake, when profit has to be made out of the poultry runs, it is certainly well worth the extra time spent in their behalf.

Brandon Municipality. CHAS. H. RUSSELL.

Producing Laying Strains.

Perhaps the most useful experiments in the poultry business are carried on at the Maine State University Farm. Here hens must have a record of at least 200 eggs per annum, and by breeding from these individuals the egg-producing trait is firmly fixed in the breed. Cockerels from such breeding are sold to the farmers throughout the State, thus disseminating the good work. Work along these lines, we believe will be of infinitely more value to the breeds than the extreme efforts put forth to produce fancy markings, regardless of the usefulness of the birds for eggs or meat.

What Breed?

With the coming of spring and the beginning of the hatching season, many people decide to make an improvement in their poultry flocks. In the past such decisions frequently have led to the unintelligent purchase of pure-bred stock without regard to the characteristics of that particular class, consequently much dissatisfaction has arisen in some quarters with pure-bred stock. In venturing into pure-bred poultry, it should be remembered that there are greater differences between some of the different breeds than between pure-bred and mongrel poultry, and often very great differences in individuals of the same breed. It is necessary, therefore, before buying pure-bred stock or eggs from such, to know just what is wanted, and to know to what extent the breed selected will fill that want. For instance, if a person wanted to raise table fowl of medium weight, of good quality and with yellow skin, he would not be advancing to that end by purchasing Leghorns, Andalusians, Minorcas, Brahmans, or Langshans. For this purpose Plymouth Rocks or Wyandottes will give the best satisfaction, or if the same class of bird is desired with a white skin, the Buff Orpington would give good results. For guidance it may be laid down as an approximate rule that for egg production the Leghorns (all colors), the Minorcas and Blue Andalusians are in the lead; for large size in table fowl, with white skin, and for sitters, the Brahmans, Langshans and Cochins excel; and for general-purpose birds, for the production of eggs, sitting and table use, the Rocks, Wyandottes and Buff Orpingtons "have their innings." Other breeds have their peculiarities, and are profitable to those who go in for novelties and exhibition fowl, but if the average person decides what he wants and selects from the above breeds to fill that want, he has taken a long advance step in the production of improved poultry.

Fertility of Eggs.

A correspondent writes us asking: "How long after ducks are mated must one wait before the eggs will be fertile; and, if a new male is put with hens, how soon will the eggs be fit for hatching and the old strain eliminated?"

There are some of the problems that are being investigated by advanced poultrymen to-day. As to the drake and ducks, we are not advised of any results of experiments, but in the case of the hens, results obtained at the Ontario Agricultural College answer the question in part. At that station Prof. Graham found that, taking six hens that had not been with a male for months, the eggs laid on the first two days after the introduction of the male were all infertile, and on the following days the percentage of fertile eggs was: On the third day, thirty per cent.; fourth day, forty-two per cent.; fifth day, fifty per cent.; sixth day, sixty per cent.; seventh day, seventy per cent.; tenth day, seventy-four per cent. To determine how long after the male had been removed the eggs would be fertile, the eggs from other hens were tested. For the first four days after the male had been removed, seventy per cent. of the eggs were fertile; on the fifth day, sixty-one per cent.; on the seventh day, forty-nine per cent.; on the eighth day, twelve per cent., and on the ninth day only two per cent. were fertile; those laid on the tenth day were all infertile. Different results are obtained from experiments with turkeys; one mating of this class of birds being sufficient to fertilize the eggs for a whole season. Just what light these results throw on the question of mating ducks we are not prepared to say. Neither can we say with certainty that by following the outline of these experiments and introducing a new rooster, the blood of the previously used cock will be lost sight of. Excellent authorities claim that the effects of a certain mating will be noticed long after fresh blood has been introduced, but it is safe to say that the longer the pure-bred cock remains with the flock the less will be apparent the characteristics of previous matings.

Selection.

Everyone would like to have the ideal hen that begins laying in November, keeps it up all winter, and raises a flock of nice plump cockerels and good laying pullets in the summer when eggs are cheap. To secure such a class of poultry, we would say get some pure-bred foundation stock, and then select for the desired end. Selection is the groundwork of improvement, not only in poultry, but also in all farm stock. December laying strains do not come by chance. To get this trait, the pullets are hatched early, fed well to maturity, well-cared for in the fall, and when there is a marked tendency shown by a few individuals to get down to earnest work, the eggs of these few are used the following year for hatching, and so the work for improvement goes on. The same course is followed in producing table fowl. Everyone can practice this improvement if the trouble is taken, and when the work is undertaken intelligently and with determination the trouble is considerably decreased. The lean, long-legged

hen, and the over-fat, idle individual, should go to the kitchen early in their existence; then when spring comes and the time for hatching begins, the eggs from the most desirable types need only be used. This systematic selection is the only way in which we can increase the usefulness of our poultry and the profits of poultry-raising.

B. C. Poultry House.

In reply to the request of your correspondent, J. S. G., in your issue of the 5th March, 1903, asking for a plan for a henhouse, I enclose a plan I had prepared a short time ago for myself, and which I think fills the requirements fairly well for a limited number of hens. The space in rear of the nest boxes is intended for feeding the sitting hens separate from the others, and the room in the west end is intended for a feed room, etc. JAS. H. KENNEDY. Yale and Cariboo, B.C.

Teacher and Scholar.

The public school, its associations and improvement are subjects of growing interest and vital concern to every farmer's family in the West. We should be pleased to receive concise communications of a helpful and suggestive nature for this department of the "Farmer's Advocate" from those interested.

Commends the School Department.

To the Editor "Farmer's Advocate":

Dear Sir,—Was pleased to note by copy recently received that the educational question was receiving attention in your valuable paper, the "Advocate." Might I, however, make a suggestion? The relationship of teacher and scholar is well emphasized in all the text-books of pedagogy that fall in the way of him or her who gives his whole attention to education. But there is a relationship that receives but little attention, even in educational magazines. I mean the relationship of teacher and parent. The reason is obvious. There is no medium of expression that comes as well to the notice of the parent as to that of the teacher. Could you extend the scope of your new department so as to deal with the relationships of parent as well as pupil and teacher? Hoping the department will be successful, and assuring you of my willingness to assist you in any way possible. W. CLARK SANDERCOTH. Principal Napinka Schools.

Plea on Behalf of Girl Pupils.

To the Editor "Farmer's Advocate":

Dear Sir,—I enjoyed the article on "Nature Study" very much, also the one on "Manual Training."

In regard to the former of these, is there any simply written and clearly illustrated book that will give the names and a few of the habits of our Canadian birds? It is a great drawback to nature study to have no names by which to fix our gathered scraps of knowledge.

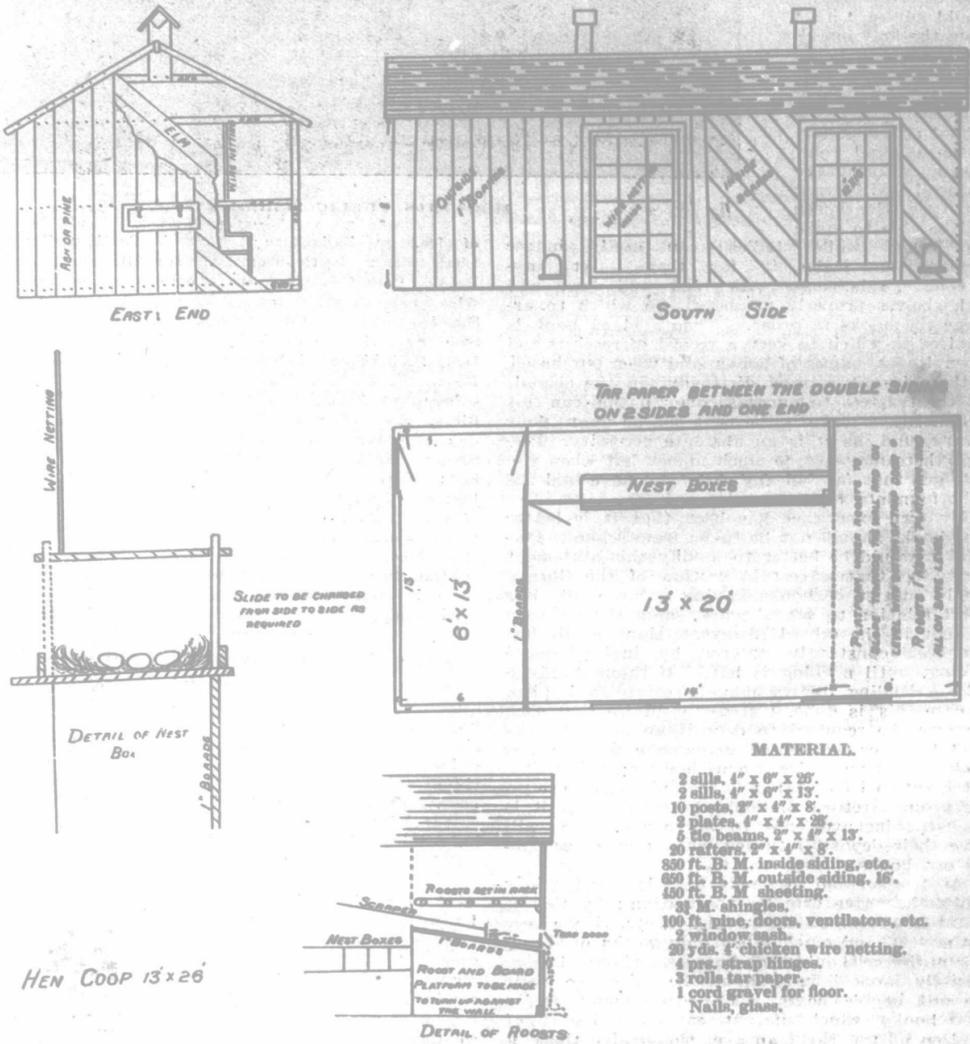
As to the latter, I would be glad to see it started in every school. But why should the girl pupils be deprived of this useful training? I understand that sewing, or domestic economy, or some such study, is to take its place with them. Now it seems to me these things should no more be part of a girl's course than that tailoring should be part of a boy's.

Of course I admit that these branches form part of a true woman's necessary knowledge, for she must always be the home-maker; but why should the science of home-making be taught in our schools any more than that of medicine, which is almost equally necessary for the happiness of mankind? It seems to me that the school is primarily for the building of character and training our youth for future citizenship. That being so, a skillful teacher would strive by suitable exercises to strengthen the weak points, and curb those already too strong, in order to produce a well-rounded character. But it seems to me that this natural procedure is set aside when a girl's course is under discussion.

It has always been charged against our sex, that we are lacking in breadth of thought, weak in reasoning powers, and almost wholly wanting in constructive ability; mere copyists, given over to petty details. And the cure for all this is—more details, yet more narrowing subjects. When a chance for work along constructive lines comes, give it to the boys (who, it is claimed, already possess this power), the girls don't really need it, because, you know, they can't do it anyway!

If our girls had more of this sort of training, we would have fewer nervous, hysterical women, and a great increase of true, companionable womankind. (MISS) F. H. CREIGHTON. Louise Municipality.

[Ed. Note.—As far as we know, no book treating of Canadian birds exclusively has yet been written. Write Department of Agriculture, Toronto, Ont., for copy of bulletin by Chas. W. Nash, on Canadian birds; also Department of Agriculture, Washington, D.C., for copy of Farmers' Bulletin No. 54, entitled, "Some common birds in their relation to agriculture."]



- MATERIAL. 2 sills, 4" x 6" x 25'. 2 sills, 4" x 6" x 15'. 10 posts, 2" x 4" x 8'. 2 plates, 4" x 4" x 25'. 6 tie beams, 2" x 4" x 15'. 20 rafters, 2" x 4" x 8'. 850 ft. B. M. inside siding, etc. 650 ft. B. M. outside siding, 16'. 450 ft. B. M. sheathing. 24 M. shingles. 100 ft. pine, doors, ventilators, etc. 2 window sash. 20 yds. 5' chicken wire netting. 4 yds. strap hinges. 3 rolls tar paper. 1 cord gravel for floor. Nails, glass.

School Libraries.

(Continued from March 5th.)

If the head of every family could afford and had the ability to select a well-chosen collection of books, there would be little necessity for public libraries. However, but few of us can do this, and in order that all may have access to the best thought of the world's great workers, public libraries become a necessity. Most cities and towns are well supplied in this respect, either by private benefaction or from public funds. Country districts have few of these advantages possessed by the large centers of population, and the writer's only aim in this article is to supply some degree of help to those interested in establishing or improving their school libraries. The suggestions offered may not meet with universal approval, but they are mainly the result of the actual experience of a country school teacher.

One great hindrance to the best work along this line is the frequent change of teachers. Many an ambitious teacher has worked hard to put a library in the school, which is soon neglected and the books lost or destroyed. The only way to make the library permanent is to get the trustees and other ratepayers interested, and perhaps the quickest way to do this is to touch their pockets. Instead of allowing every school a fixed grant, make the grant dependent on certain conditions, such as attendance, equipment of the schoolroom, condition of buildings, grounds, etc. Let a fixed amount be given each year, on condition that the school library be kept up to a state of efficiency set by the advisory board. Of course the teacher cannot do all this, but suggestions frequently made to the proper authorities might lead to the desired result. Such a question might be a profitable one for discussion at teachers' institutes. It is only by some such method that permanency and universal establishment of school libraries can be secured.

Until such time as school boards are sufficiently interested, what is the teacher to do? The first necessity is money. A school concert is one means of raising funds, and a liberal patronage is assured when the object is a good one. As to the expenditure of the money, I would advise that from the first instalment sufficient be set aside for the purchase of a proper bookcase. If you cannot afford to purchase a good one, then make one. The material will cost but little. Gentlemen will be able to make the case, while ladies can easily induce someone to make it for them. At any rate have a bookcase with lock and key, and with shelves properly numbered, on which to arrange the books in order. Then a blank book is required in which to keep a record of receipts and expenditures, names of books, and when purchased. If there is not a good dictionary in the school, get the trustees to purchase one; if this can not be done, then make it the next charge upon your library fund, as it is an absolute necessity. Perhaps there may not be much money left when you have got thus far; in any case, you have laid the right foundation.

My own experience has been that it is better that books should not be taken from school. Perhaps it would be better to modify this statement by saying that a certain section of the library should consist of books having a more or less direct relation to school work, and these should be kept in the school always. Many a library has been constantly reduced by indiscriminate lending, until nothing is left. If thought advisable, a lending library may be established also. In case this is done, I strongly advise that each borrower be required to deposit an amount sufficient to cover the loss of or damage done to any book. You may disagree with me on this point, but I am positive that it is the only way to secure the prompt return of books borrowed, and it is no great inconvenience to borrowers, who will have their deposit returned when they cease taking out books.

As to the kind of books to select, get chiefly books that give definite information; by this is meant biography, history, science, etc. Have very few novels, and of that few only works of standard authors should be chosen. Those books specially for children should be suited to their age and acquirements. There are many really good books, which, if put into the hands of children at too early an age, would give them a

distaste for reading. The paper should be of good quality, and the type large and clear. A book with poor, thin paper is more easily soiled and more likely to be accidentally torn than is one with a good quality of paper. Small, blurred type is responsible for many defects of eyesight. It also tends to get one into the injurious habit of stooping over his work. Binding should be strong and suited to stand the wear and tear of everyday use. A well-bound and well-printed book will cost originally two or three times as much as one poorly bound and printed, but will be cheaper in the end, as a child will take better care of a good book than he will of one which will come to pieces with ordinary usage.

The following list of books may be useful in suggesting to some readers suitable material for the foundation of their libraries:

For Junior Grades.—Cyrus' Readers; Carpenter's Geographical Readers; Nelson's Readers (English); Stories from English History, by H. O. Arnold-Foster; Seven Little Sisters; Cat Tails and Other Tales; Aunt Martha's Corner Cupboard; Ten Boys Who Lived on the Road from Long Ago Till Now; Fifty Famous Stories Retold, by Baldwin; Squirrels and Other Fur Bearers, by John Burroughs; Hans Brinker, or the Story of the Silver Skates; Story of Abraham Lincoln; Story of Garfield; Secrets of the Woods; School of the Woods, by W. J. Long; Black Beauty; Aesop's Fables (selected); Marquis' Stories of Canadian History; Young Folks' History of America; First Study of Plant Life, Atkinson; Robinson Crusoe; Swiss Family Robinson; Story of a Piece of Coal, by Grant Allen; Story of Columbus; Storyland of Stars.

For Senior Grades.—Romance of Canadian History; Pioneers of France in the New World; The Oregon Trail, by Parkman; Tales of Adventure and the World



MOOSOMIN PUBLIC SCHOOL.

of Ice, by Ballantyne; Nansen's Farthest North; Little Men; Little Women; Tom Brown's School Days; With Clive in India; With Wolfe in Canada; With Frederick the Great, by Henty; Scottish Chiefs; Spanish Story of the Armada, by Froude; English Seamen in the Sixteenth Century, by Froude; Black Ivory; A Tale of South Africa; Tom Sawyer; Round the World in Eighty Days; Last of the Barons; Other Suns Than Ours, by Proctor; Some Canadian Birds, by Chamberlain; Practical Agriculture; James; John Halifax, Gentleman; Old Curiosity Shop; Martin Chuzzlewit; The Talisman; Ivanhoe; Kenilworth; Tennyson's Poems; Longfellow's Poems; Pizarro, or the Conquest of Mexico; Story of the British Race, by Grant Allen; With Kitchener to Khartoum, by Stevens; Remarkable History of the Hudson's Bay Co., by Dr. Bryce; Deeds that Won the Empire; Northwest Rebellion of 1885, by Major Bolton; Life of Wellington; Life of Nelson. Winnipeg. W. J. S.

Educational Department Appreciated.

Let me congratulate the "Advocate" on the establishment of an educational department. I hope it may bridge the chasm existing between the home and the school, and bring about a closer union. The ordinary newspaper and the educational journals have tried this, but without success. If you succeed, the building up of the agricultural interests of the Province will not be your only triumph. W. S. MACKENZIE, Selkirk Elect. Dist.

A keen old curler who always appeared on the ice with a cap having useful flaps, which he pulled down over his ears, appeared one day in new head-gear. "Hullo!" said a friend, "Where's ye're auld lug-warmer?" "Ah! I've never worn it since my accident." "Accident? I'm very sorry to hear of it; what was it?" "A man offered me a dram, an' w' they dashed flaps, I didna hear him!"

Methods of Study.

The subject certainly is broad enough, even when it is understood as applying only to pupils in the public school. Let us narrow it. It is not methods of teaching, but methods of study—not the teacher's work, but the pupil's work. Furthermore, it does not apply to Standard I., because pupils in this standard, and largely those in Standard II., cannot be said to study in the usual sense of the term. Certainly they can be set to find out facts in nature and custom about them, and they can accomplish small tasks of memorizing, but whatever of method applies, the rein can be drawn from what is said about the work for more advanced pupils. Our subject, then, is "How can the senior pupils in our public schools most profitably pursue their out-of-school studies?"

First of all, in order of difficulty, is the formation of the habit of study, and in this matter the pupil individually is paramount. A judicious parent stands next in influence. Many boys and girls have no "homework," unless teacher sets some definite task for to-morrow; if it is for the day after to-morrow, then it is to-morrow night's homework. To such boys and girls, homework is, at best, a necessary evil, and it altogether lacks the satisfaction which comes from true study. The pupil who enjoys history is the one who, when the Norman Conquest is under study, needs only a hint about Lytton's "Harold," to be found in a day or two full of the wonder of Hilda's magic and Harold's prowess. The reading is partly the result of the enjoyment of history, but in a greater degree the enjoyment is the result of the reading. Euclid says the square on the hypotenuse of a right-angled triangle is equal to the sum of the squares on the other two sides. The interested pupil wonders if that would be so if he measured the sides of his room and across the corner. If he measures once, he will forget never.

It is not necessary to multiply examples to gather the secret; and when it is gathered it is the old truth that when a student has done work for and by himself, he knows that work thoroughly and permanently. That is the reason our universities are proud of their extramural students, and year by year are giving more attention to that branch of their work.

This problem of teaching a student how to study for himself, is one that our schools and teachers have too much neglected. Teachers get training in methods of teaching, but they too often do not give their pupils training in methods of study. Much matter is put into a pupil's mind, but his method of acquiring more is left to develop itself—which is a crime; for most pupils in this agricultural country of ours quit school before anything like a liberal education is acquired. If they knew how to educate themselves, leaving school would be merely an incident in their education, but when they do not— But you will say that I, too, am giving you much matter and little method, so I'll drop that and take an example of method in a pupil's study. In this article I shall confine myself to one method—the topical analysis—and I can best explain that by using an example.

Suppose the student is reading up the history of the Crusades. A historical subject of this kind naturally divides itself into some such divisions as: I., Causes; II., Events; III., Results; and an analysis of that kind should be in the student's mind from the start. As he reads, these topics will become amplified and subdivided. He should read with pencil and notebook at hand. Presently he will have some such form as the following:

The Crusades—

- I. Causes:
 1. Control of Palestine by the Mohammedans.
 2. Insults to Pilgrims.
 3. Suited the religious spirit of the time.
- II. Events:
 1. Three Major Crusades:
 - (a).
 - (b).
 - (c).
 2. Establishment of the Latin Kingdom.
- III. Results:
 1. Loss of life and property.
 2. Knowledge of geography, peoples, science.
 3. Cultivation of spirit of persecution.

More study will mean further subdivision, and probably a rearrangement of some of the headings already written. A student who has made

such an analysis, grasps the subject in an orderly way, and he himself has made a distinct advance; his education is extended and he has new power for grappling with other subjects.

Let us take a simple example from literature. "Bingen on the Rhine" is an old favorite. Many are the boys and girls who have read it, and learned it by heart, without ever thinking that there was a plan in its composition. Would the appreciation of its beauty and pathos, or the ease of its recitation, have been less if the youth had seen this plan in it?

Bingen on the Rhine:

1. The dying soldier.
2. His messages:
 - (a) To his brothers and companions.
 - (b) To his mother.
 - (c) To his sister.
 - (d) To his sweetheart.
3. His death.

I am quite aware that the use of "plans" of this kind is quite usual in teaching, but my contention is that pupils do not make such plans for themselves, and this fact is largely responsible for the inability which they show when cast upon their own resources. The greatest intellectual benefit of this kind of work is that it teaches the student to fix upon the key to a situation or a subject, and to see its various parts in their true relative positions.

Asa. East. S. J. A. BRANION.

Horticulture and Forestry.

The Outlook for Apple Growing.

(Continued.)

In connection with the theory of inherent hardness of individual specimens, I would cite the case of the only "Transcendent" crab tree growing at the Experimental Farm. The tree in question is the only survivor of a large consignment planted some years ago, and while there is absolutely nothing left of the balance (which have long ago succumbed to winter-killing), this specimen is today apparently quite hardy, not winter-killing in the slightest degree, and has for several seasons produced a good crop of fruit of an excellent sample. The second method pointed out in last issue of the "Advocate," along the lines of which something may be accomplished towards the production of a hardy apple for Manitoba and the Northwest, is "Sowing the seeds of Manitoba grown fruit" wherever procurable. Of course, such seedlings will not all be of value, but it is quite within the bounds of probability that a very valuable fruit (for Manitoba) will be evolved by this means. The following illustrates our own experiences along this line: In 1898 a large number of seedlings of the standard crabs were planted at the Brandon Experimental Farm, the following varieties being represented in this test: Transcendent, Gideon, Hyslop, Snyder, Jumbo, Rose of Stanstead, and Martha. A portion of these were obtained from Ottawa, the balance being grown from the seed of Manitoba fruit. With the exception of the last mentioned (Martha), all these have proven too tender, having been repeatedly cut back to snowline. With the seedlings of Martha, however, the case has been entirely different. We have some twenty of these specimens, all of which have proven hardy since planting in 1898, and one of them fruited last season. The tree in question is an upright and shapely grower, and the fruit was produced abundantly. The calyx was persistent, and the fruit firmly attached to the tree (a very necessary qualification for Manitoba). The color is a clear lemon yellow, with the faintest suggestion of red on the sunny side, the flavor resembling that of the Transcendent, attaining to about two-thirds the size of that variety. Should this be the only result we may obtain, we have cause for congratulation, but as there are several trees which have not yet fruited, other equally gratifying results may be anticipated.

The specimen in question can be thoroughly recommended as sufficiently hardy for general cultivation in Manitoba, and I need scarcely add that propagation of such specimens will be pushed along as rapidly as possible, in order to obtain material for distribution to the farmers.

With the larger apples, as yet we have only two specimens, one each of "Wealthy" and "Tonka," and these again illustrate the superiority of Manitoba-grown trees over imported ones. They were obtained from Mr. Stevenson, of Nelson, and were root-grafts on to *Pyrus baccata*, of scions taken from his own trees, and, though previous importations from the East of the same varieties have repeatedly proven failures, these may be considered as fairly hardy, and a few fruit set last year, which was unfortunately stolen before attaining maturity. In your next issue I will give you a brief account of our experiments along the lines of cross-fertilization with the apple.

HARRY BROWN.

Trees Beautify the Farm.

In 1887 Mr. Stewart, M.P.P., of Pilot Mount, brought some blue spruce from Cypress River and transplanted them near his home. At first they made very slow growth, owing chiefly to being surrounded by the natural prairie sod. Later, when this condition was changed and cultivation was given them, better results were at once noticed, and ever since steady growth has been fostered by cultivation, until now they are large, thrifty and ornamental. About seventy trees were experimented with at that time with good results.

A row of spruce on the south side of an orchard is a splendid means of holding the snow around the roots of fruit trees and bushes. Being so placed it also retards early blossoming, and saves the fruit from the occasional early frosts. When choosing a location land having a slight slope is desirable; drainage calls for this, and should the slope have a north-eastern exposure, the double purpose, that of drainage and checking undue early growth, will be served. This row of spruce also has other purposes; its usefulness as



A FRUITING SEEDLING OF "MARTHA" CRAB. Photographed March 18th, 1903.

a wind-break saves much fruit that otherwise would never get a chance to remain on the parent stem until sufficiently matured for use in this windy Western country; and, again, what about its influence as a beautifier? This in itself should be sufficient to repay for all labor.

A double row of Manitoba maples, twenty feet south of the spruce, adds both beauty and usefulness to this portion of the farm. Rows of other trees could also be planted, and a dense wind-break provided if desired. Willow and Russian poplar are good for this purpose; the willow being especially adapted for the outer row of all, as it grows bushy down to the ground, and also stands the stinging of wire for fencing.

White Scotch birch is well adapted for high knolly land, and makes a beautiful tree, suitable for wind-breaks or ornamental purposes. The lilac bush grows well, and adds very much to the appearance of the garden, especially in spring. The small fruit crop would be very much increased, as well as the beauty of the garden and house surroundings greatly enhanced, if a systematic plan of planting and caring for a few leading varieties of our hardy trees received the attention which their usefulness justly demands.

Questions and Answers.

1st.—Questions asked by bona-fide subscribers to the "Farmer's Advocate" are answered in this department free.

2nd.—Our purpose is to give help in real difficulties; therefore, we reserve the right to discard enquiries not of general interest, or which appear to be asked out of mere curiosity.

3rd.—Questions should be clearly stated and plainly written, on one side of the paper only, and must be accompanied by the full name and address of the writer, as a guarantee of good faith, though the name is not necessarily for publication.

4th.—In veterinary questions, the symptoms especially must be fully and clearly stated, otherwise satisfactory replies cannot be given.

Veterinary.

[Answered by our Veterinary Editor.]

Subscribers are kindly requested to read the conditions at the head of this department before writing or mailing their enquiries.

NETTLE-RASH OR SURFIT—PECULIAR CASE.

Mare, seven years old, not in foal one morning found her in the stable with breast, neck and under the belly covered with flat, hard lumps the size of a saucer, the ones on her neck being as big as eggs. I gave her saltpetre and sulphur, one teaspoonful of each, in bran mash twice. Also gave her one teaspoonful of St. John's Condition Powder in gallon oats once a day. For roughage, I have been feeding quite a lot of green sheaf oats and frozen wheat in the straw, also hay and dry oats once a day, but did not work her hard. The lumps have now almost disappeared. She always had a good appetite, and looked bright in the eye. What was the matter with her, and what should I have given her?

2. Horse, nine years old, last spring and this spring for about a month has spells of snorting while eating. His halter shank gets quite wet. He seems to get mad with it. He rubs his nose against the manger, and lifts his front foot, tossing his head up and down. When watering him at the tub, he will put his head down, then suddenly jerk it up. He does not drink more than half as much as his mate. He is in good condition, and is fed hay three times a day, oats once. His tongue is dirty yellow looking at the sides, for the rest he looks all right. J. B. Riversdale, Asa.

Ans.—1. The technical name of this affection is urticari. It is a frequent form of skin disease in the horse, and consists of an eruption of roundish or oblong elevations, which arise very suddenly and usually overspread the greater portion of the body. The cause is generally attributed to some disorder of the digestive organs, such as would be induced by a sudden change of diet, or giving a drink of cold water when the animal is in a heated condition. It has also been observed after sudden exposure to cold. The treatment consists of a mild oleaginous purgative: raw linseed oil, one to one and a half pints. Apply to the skin a lotion composed of bicarbonate of soda, four ounces; water, one quart.

2. The symptoms in this case point to some irritation about the head, probably in connection with the ears. Would advise you to thoroughly examine his ears, mouth and nose. The trouble may possibly be in the brain, which, as a matter of course, would be a very serious matter. Not knowing the nature of the case, I am unable to prescribe any treatment.

ASCITES OR ABDOMINAL DROPSY.

What was the cause of a two-year-old steer dying. His water was dripping from him. He was given quite a quantity of sweet nitre, but it failed to relieve him. He was opened when dead and was full of water, but had none in the bladder. No blood was to be seen.

Cardston, Alta.

Ans.—Your steer died from a disease known as ascites or abdominal dropsy. The causes are various, such as disease of the coats of the abdominal cavity (peritoneum), disease of the heart, liver, kidneys or portal blood vessels. Cattle that are poorly sheltered and fed on unwholesome food during the winter are subject to this disease. When it is the result of chronic disease in any of the tissues or organs I have mentioned a cure need scarcely be anticipated, but when it is caused by bad care and feeding, the proper treatment would be a radical change for the better in both, combined with a course of mineral tonics.

TAPEWORM IN SHEEP.

Would you kindly say what is good for tapeworms in sheep, and how to give the remedy to a large band of 2,500 head. Will green grass in spring kill them?

Irvine, Asa.

G. M.

Ans.—The most effectual medicine for the expulsion of tapeworm in sheep, or any other animal, is oil of malefern, but to give it to such a large number of sheep as you mentioned would be a rather tedious undertaking, as it would have to be administered to each one individually. I would advise you to try the following, which may be given to them collectively: common salt, fifty pounds; sulphate of iron, finely powdered, eight pounds; arca nut, powdered, six pounds; mix thoroughly, and distribute over bare ground where sheep can have access to lick it. Repeat once a week for three times. Green grass will have a tendency to expel the worms.

IRREGULAR STRANGLES.

I have a colt, two years old, swelled in throat, where he has hard lump the size of a large egg. There are also several lumps, smaller in size, which have broken and discharged in six places on her head and neck. Colt has not been able to eat much, and breathes very hard. Has also had difficulty in urinating, the water being very thick. We fed on oat chop, and gave sulphite of soda and spirits of nitre for the water. We also fed sulphur, and bled her about a pint. After lump on throat broke, we fed about three tablespoons sulphur daily, but throat again swelled up worse than ever, but colt did not seem sick as before. It has now broken and discharged, but has left a very large hole in throat. Can you tell me what the trouble is and how to treat if she should take it again? H. K.

Wolfe Creek, Lacombe, N.-W. T.

Ans.—Your colt is suffering from the irregular form of strangles. Put the animal in a clean, comfortable and well-ventilated box stall. Give three times daily, for ten days, by placing well back on tongue with tablespoon: chlorate and nitrate of potassium, of each, half a dram; cinchona pulv., one dram. Foment the sore parts twice daily with warm soft water, adding one ounce of creolin to each gallon of water. It is of much importance to keep the stall clean. In such cases, it is very improper to abstract blood.

SHOULDER LAMENESS.

I have a horse lame in the left fore foot, but does not show it to any extent unless when trotted. When standing, he bends his leg out at the knee and rests it on the toe. I have only had him a week, and cannot say how long he has been lame. I have had him shod, and he has no corn. The foot is dry and hard. When walking he don't step out clear, but shuffles along, sometimes stubs his toe. Would you kindly advise me what to do for him. J. M.

Edmonton, Alta.

Ans.—The symptoms you have mentioned indicate to me that the seat of lameness is in connection with the shoulder joint, but without further description I am not positive that such is the case. Stand directly in front of the animal, get its feet in a line with each other, with, if possible, equal bearing on each foot, and then look at the point of each shoulder and notice if the one on the affected limb projects farther than the other; if so, the sign is one of shoulder lameness. Place a pole about one and a half feet from the ground, and cause the animal to step over it. If it has difficulty in raising the affected limb, the sign will also point to lameness in the shoulder. If when trotting the affected limb is advanced by describing the segment of a circle, this is another sign that is quite diagnostic of the aforementioned seat of lameness. If you find the signs which I have mentioned exhibited, I would advise you to give the animal rest, and apply to the shoulder joint and its immediate surroundings the following blister: Canthar. pulv., 4 drams; biniodide of mercury, two drams; vaseline, four ounces. This should be well rubbed in with the hand for the space of ten minutes, wash off in forty-eight hours, and apply vaseline to the blistered surface. Repeat the blistering as soon as scab is removed.

MARE WITH COUGH.

I have a five-year-old mare that coughs considerably when eating or drinking. Frequently, at such times, she throws up a lump of half-chewed food. She appears healthy, yet keeps thin, although well fed. She gets oats and bran twice a day, and, frequently, boiled wheat or oats in addition; in fact, as much as she will eat, for sometimes she does not clean up her feed. I have been giving her sulphur, condition powders, Day's Stock Food, and some liquid medicine. She has a fashion of standing back in her stall with the halter tightened. Prince Albert, Sask. F. W.

Ans.—If you had mentioned the length of time your mare has been coughing it would have materially assisted me in forming an approximately correct diagnosis of the case. The coughing up of partially-masticated food would indicate an irritable state of the throat or posterior part of the mouth. I would advise you to examine the teeth and mouth carefully. Give, morning and evening, in bran mash, made by boiling one tea-cupful of flaxseed in sufficient water to scald three or four quarts of bran, chlorate and nitrate of potassium, one dram each; powdered liquorice, four drams. Continue treatment for one week. Give small feed of oats at noon.

BAD FOOT.

I have a horse with a very bad foot. The hoof seems to be rotting away on the outside and upper surface. The sole and frog seem all right. Is not lame. I think he must have got the horn injured by breaking through hard crust of snow when breaking trails before I got him. If I can do anything for him, kindly tell me through the medium of your valuable paper, and oblige. F. W.

Rapid City, Man.

Ans.—The natural secretion of horn has been checked, probably by some external cause, such as you mentioned, or by some internal abnormal condition of the secretory substance. Carefully cut away all partially detached horn, and after clipping the hair closely from the coronet apply to it the following blister by rubbing well in with the fingers: pulverized cantharides, two drams; vaseline, one and one-half ounces; mix. Dress the hoof once daily with carbolic acid: raw linseed oil, one pint; carbolic acid, two ounces.

WOUNDED FETLOCK.

I have a mare that, in some way, got a scratch on one of her hind fetlock joints. I did not take any notice of it for several days, thinking it would heal up. Then it got a little inflamed, so I thought I had better do something. I poulticed it two or three times with bran, but as she kicked about a lot I left off, thinking that by her kicking she would make it worse. The poultices drew matter from the wound. Since then I have bathed it occasionally with water and kept a bandage over it and vaseline on it. It seems healing and the inflammation has disappeared, but the swelling remains. The scab is rather a bright red color. She does not seem lame at all; is in good condition. It is nearly three weeks since I first noticed the scratch. It is tender yet to the touch, and the swelling is all round the joint. Can you advise me what to do? A. G. H.

Brandon, Man.

Ans.—Probably the wound was exposed to frost, which would be the cause of the subsequent inflammation. If the mare is not pregnant, I would advise you to prepare her for physic by feeding exclusively on bran mash diet for at least sixteen hours, and then give the following dose: Barbades aloes, one ounce; ginger pulv., two drams; soap or syrup sufficient to form a ball. Continue the bran mash rations until the physic has ceased to operate. Clip the hair closely from the swollen fetlock, and paint every alternate day with strong tincture of iodine; iodine, four drams; iodide of potassium, three drams; alcohol, four ounces. When skin becomes quite some leave off for a few days, and then repeat.

SWAMP FEVER.

I have a two-year-old colt which had a very bad attack of swamp fever about two months ago, and has left him very weak in the back or across the kidneys. Would you let me know through your paper what is best to do for him. A. F.

Beaverdale, Assa.

Ans.—A wobbling or swaying gait behind indicates weakness of the loins, and is a characteristic sequel, or rather, symptom, of so-called "swamp fever." In a large majority of such cases, the condition is not amenable to treatment. The animal being young, and if not greatly reduced in flesh, you may try the following: nux vomica pulv., half a dram; quinine, forty grains; bicarbonate of potassium, one dram; to be given morning and evening for two weeks in boiled grain. Discontinue the medicine for one week and repeat as before. Rub the following liniment into the loins once daily for one week: soap liniment, four ounces; tincture of cantharides, two ounces; spirits of camphor, three ounces; tincture of capsicum, one ounce.

MAMMITS AND INDURATED UDDER.

Cow dropped her fourth calf in February. After second calf the hind quarters of her udder gave lumpy, bloody milk. The quarters are the same now, and there is a sore lump about the size of an apple that was caused by a kick. Is the condition hereditary? J. E. M.

Ans.—The lumpy and bloody milk is caused by inflammation of the udder. Purge her with two pounds Epsom salts; apply hot poultices to the udder, and rub well with camphorated oil, three times daily. The lump can be reduced by rubbing twice daily with compound iodine ointment. It is probable the trouble has all been caused by the kick mentioned, and hence is not hereditary, and not likely to appear in her daughters or the produce of her sons.

PARTIAL PARALYSIS AND LAMENESS.

1. Mare has occasional attacks of general debility, with partial loss of appetite. She is dull and eats little, appears stiff over kidneys, and is inclined to roll from side to side. Her food consists of good timothy hay and two quarts boiled oats once daily, also a few turnips. I have given condition powders, with no good results.

2. Mare got loose and ate too much barley; she is a little stiff. C. T.

New Westminster, B.C.

Ans.—1. Your mare has partial paralysis. Purge her with eight drams aloes and two drams ginger. Give two drams nux vomica three times daily. As her appetite improves, feed more oats; give at least two quarts of whole oats, or their equivalent of boiled ones, three times daily.

2. This mare was foundered from an over-feed of barley. Prompt treatment would have effected a perfect cure, but it will be more difficult to treat now that it has become chronic. Clip the hair off all round the hoof, for about two inches up the pastern, and blister repeatedly with two drs. biniodide of mercury, two drams cantharides, and two ounces vaseline.

CONTRACTED FOOT.

Have mare with a contracted foot, and is quite lame. Have lately been getting her shod by good blacksmith. E. C. H.

Ans.—Apply a linseed poultice to the foot affected for two nights in succession, then apply a blister, composed of cantharides, one dram; biniodide of mercury, one dram; lard, one ounce, to the coronet, once a month, for two or three months. If possible, turn out to pasture for a month after the first blister.

BARBED-WIRE WOUND.

In September last my mare cut her coronet with barbed wire; the limb appeared to be cut half through. The wound healed slowly, and she is still very lame. The muscles of the shoulder have fallen away. Would it be wrong to work her? H. C. M.

Ans.—Wounds in this region heal slowly. If the hoof is involved the horn must be kept well pared away around the edges and the foot poulticed for a few hours each day with linseed meal. The fleshy wound should be dressed regularly with one part carbolic acid to twenty parts sweet oil. The shrinking of the muscles of the shoulder is due to inaction on account of the lameness; when the lameness disappears the muscles will regain their normal condition. She certainly should not be worked. It would be a well marked case of cruelty to animals.

ERYTHEMA.

Brood mare that was fed highly on oats, with a small percentage of barley, has broken out with a sort of itch on all her legs, from hocks and knees to feet. She bites and scratches the parts. I have been washing her legs with soap suds and applying copperas water, but this does not effect a cure. She is a Clydesdale. A. F.

Ans.—Your mare has a skin disease called erythema. Many hairy-legged horses are predisposed to it. Do not wash at all. If the legs get wet and muddy, allow them to dry and then brush. If she were not in foal, a purgative of aloes would be good treatment, but this is unsafe on pregnant mares. Feed largely on bran and roots, very little grain. Give two ounces Fowler's solution of arsenic, twice daily, and dress the legs with corrosive sublimate, one part; water, 7000 parts.

CURB, AND CONTRACTED HOOF.

1. Colt, two years old, has curb. Please give treatment.

2. The front feet of two-year-old colt are small and the frogs of same are poorly developed. Can anything be done to promote the growth of feet, and the development of frogs? W. S. M.

Ans.—1. Clip the hair off the curb and apply a blister as follows: Cantharides, one dram; biniodide of mercury, one dram; lard, one ounce. Apply lightly, once a month for three months.

2. As your colt is young, a run at pasture this summer will be all that is required; a field with damp parts in it by preference. A blister to the coronets would stimulate the growth of hoof, if they still require treatment after the run on pasture.

ITCHY LEGS.

Four-year-old Clyde has itchy legs; she rubs and bites them. Is in good condition and driven occasionally. A. D.

Ans.—The symptoms are of a very general nature. Withhold feed for twenty-four hours, then give eight drams of powdered aloes and two drams of ginger, made into a ball with syrup. After this feed on light, cooling feed for a few days. Give plenty of exercise. If the legs have broken out in sores, wash well with warm soft water and castile soap; dry by rubbing well with dry, clean sawdust, and apply three times per day a solution containing one part carbolic acid to twenty parts water. When the sores begin to heal, rub with vaseline, mutton tallow, or other fresh grease.

CHOREA IN DOG.

Dog is stiff, jaws snap; there appears to be a swelling on top of head, as though an abscess were forming. He moves with difficulty; has coarse, husky bark, and eats very little. J. F.

Ans.—Your dog has chorea, and it is doubtful if he will recover. Keep him in a comfortable, dry, well-ventilated place; purge with thirty grs. jalap and two grs. calomel; follow up with ten gr. doses bromide of potassium, three times daily. Give him anything he will eat, but in small quantities. If an abscess form, open and allow the escape of pus, and dress daily with a five per cent. solution of carbolic acid. If you value him, it would be well to show him to your veterinarian.

BLOODY MILK.

My cow gives bloody milk from all four teats. It was the color of brown paint when she calved, but is gradually getting whiter. R. M.

Ans.—Bloody milk is due to rupture of some of the small bloodvessels in the udder. There is a congenital weakness in the bloodvessels in some cases, and in such the recurrence of the trouble cannot be prevented, but the condition is liable to occur in any cow, especially at the time of calving. Bathe the udder well and often with cold water, and administer one ounce tincture of iron in a pint of cold water, twice daily, until blood ceases to appear in the milk.

NASAL GLEET AND CHRONIC SORE THROAT.

Two-year-old colt has had a discharge from his nose and difficulty in swallowing ever since he was six months old. W. H.

Ans.—Your colt has nasal gleet, and in a chronic case like this, it is probable an operation by a veterinarian will be necessary. You might try giving one dram sulphate of copper, night and morning, for a few weeks, and if no benefit results, take him to your veterinarian for examination, and if necessary an operation. A blister will remove the soreness of the throat.

PERIODIC OPHTHALMIA.

Five-year-old horse has trouble in his eyes. The veterinarian says it is periodic ophthalmia. The man from whom I bought him says he had pink eye as a two-year-old. S. W. M.

Ans.—As you give no symptoms, it is impossible for me to give an opinion, but doubtless your veterinarian is correct, and there is no cure. He will, in all probability, eventually go blind. All that can be done is to treat each attack by putting him in a partially darkened stall; protect from strong light and drafts; bathe the eyes well and often with warm water, and put a few drops of the following into each eye, twice daily: Sulphate of atropia, ten grs.; distilled water, two ounces. The attacks cannot be prevented.

HALF OF UDDER NOT FULLY DEVELOPED.

One side of cow's udder does not give as much milk as the other, the teats are smaller, and the quarters feel rather withered. The udder is large and fat. N. McP.

Ans.—This is a congenital conformation, not due to disease. Hand rubbing may be followed by good results, by stimulating the quarters to increased activity. The administration of drugs would do no good.

LUMP JAW.

My heifer has lump jaw; bone not affected. Would it be advisable to have the tumor dissected out? E. L. P.

Ans.—Yes; all affected tissue must be removed, else the growth will reappear.

FILING HORSE'S TEETH.

Can the teeth of an old horse be filed so that he can eat better, or will he have to be fed on soft feed, so he can work through the summer? W. B.

Ans.—Yes. Have a good veterinary do the job for you.

Miscellaneous.

Subscribers are kindly requested to read the conditions at the head of this department before writing or mailing their enquiries.

REGISTERING BULL.

I have a Shorthorn bull that is registered in the American Shorthorn Registry. In taking him across the line to Canada, what would I have to do in order to have him registered in the Dominion Herdbook, and what would it cost to make the change? F. Mc. Grafton, N. D.

Ans.—As there are certain Shorthorns registered in the American Herdbook whose pedigrees are not accepted by the Canadian Registry, it would first be necessary for you to submit the pedigree to Henry Wade, Secretary Dominion Cattle Breeders' Association, Parliament Buildings, Toronto, for approval. Then, provided it is accepted, you will be required to pay \$1.25 if the animal is under twenty-four months old or \$1.75 if over that age. You will also be obliged to have registered those of his direct ancestors bred in the United States not already registered in the Canadian volume. In addition to this, the bull must pass the tuberculin test before he will be allowed to cross, in any event. Better submit the pedigree to Mr. Wade first, and if it be accepted and you decide to have him registered, write Chas. Little, V. S., Winnipeg, who will have the test made. It would, of course, be useless to incur the expense of registering the animal until you are certain that he will be allowed to come into Canada.

BARLEY FOR HORSE FEED.

In one of your late issues you recommended barley as good feed for horses, but did not state how it should be used. Should it be steamed, or would it do to feed it as we do oats? R. W. C. Didsbury, Alta.

Ans.—Barley, although good horse feed, is by no means equal to oats, nor should it at any time constitute the full portion of the animal's grain ration. Steamed barley makes a splendid addition to the bill of fare for our noble friend, if fed, say two or three times a week, as his evening meal. The best way of feeding uncooked barley to the horse is to have it crushed, that is, merely flattened between iron rollers. This is both palatable and acceptable. However, it can safely be fed whole where the horse's teeth are good. Ground barley, when mixed with the saliva, forms a pasty mass which is unpleasant to the horse while eating. One quarter barley and three of oats makes a good mixture, but cannot be recommended in preference to a whole-oat ration.

GRASS SEED AND FIELD WEEDERS.

1. What kind of grass seed is best to sow with brome grass for pasture?

2. Would it be advisable to sow grass seed with wheat in spring on summer-fallow?

3. What kind of field weeders are the most satisfactory? D. Holmfeld.

Ans.—1. Western rye grass.

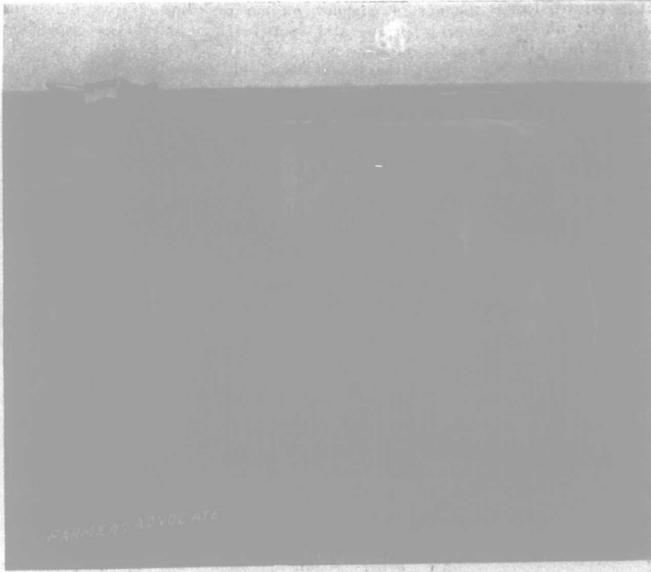
2. In favorable seasons, a fair catch is obtained when sown with a nurse crop, but brome grass in particular does best when sown without grain.

3. This question appears to us rather vague, and for that reason, we fear, cannot be satisfactorily answered, unless put in more definite form. If it is for killing weeds on the summer-fallow that is meant, it largely depends upon the size and nature of the weeds as to which implement will give the best results. There is an implement called the "Breeds" weeder that gives fair satisfaction on land where the weeds are very small. It resembles a horse rake without wheels, the teeth having less curve and without play.

NORTH OF LAKE MANITOBA.

Could you tell me what the country north of Lake Manitoba is like, also north-east and north-west, near where the G. T. R. is going? Is it fit for wheat, or is it all marsh? Where could I find out most particulars about that locality? SUBSCRIBER. Penrith, Man.

Ans.—The country north of Lake Manitoba is considered to be well adapted for mixed farming, considerable shrub and abundance of grass. At present, it is impossible to state where the G. T. R. is going. The Department of the Interior, Ottawa, could give fuller particulars.



(Photo by G. H. Parsons.) **BREAK OF DAY (76917).** Two-year-old Shorthorn bull. Winner of many prizes at principal English Shows. THE PROPERTY OF MR. C. W. KELLOCK, AUDLEM, CHESHIRE.

SHEEP DIPS AND WOOL.

1. Can you give a receipt for a good cheap sheep dip for killing ticks? Regular dips come to over two cents per head.

2. What is washed wool as quoted in markets at 17½ cents? Buyers here pay only five cents or six cents for unwashed. SUBSCRIBER. Kelowna, B. C.

Ans.—1. Dissolve three pounds of powdered white arsenic in six gallons of boiling water, then add 40 gallons of cold water, stirring until the water is well mixed. Increase this amount at same proportions according to the number of sheep you wish to dip. White powdered arsenic, in many places, can be bought for 12 cents per pound or less, so that this mixture would be cheaper than two cents per head. Be careful if you use this dip not to allow the lambs back with the sheep until the ewes are well drained. This mixture will not injure the hands, even if they are slightly cut.

2. Washed wool is understood to be wool that has been washed on the sheep's back. Wool that is washed after the sheep are clipped is deficient in yolk, consequently is more harsh and less valuable. Unwashed wool contains considerable dirt, and in most cases from one-third to one-half is deducted for that. The difference in price that you mention is very marked, even when all these things are considered.

BRITISH PATENT DEPARTMENT.

Will you kindly give me the address of the British Isles Patent Department? W. G. K. Moosomin.

Ans.—Somerset House, London, E. C., England.

PIGS ON SHARES.

Having arrived lately in this country and having read with great interest your paper on farming, etc., I should esteem it a favor if you would kindly give me your valuable opinion on an idea of mine with regard to pigs. I have about \$100.00 to invest, and knowing a trustworthy farmer, a subscriber of yours, I thought it would be a good idea to buy a few pigs and let him feed them and do all the necessary work, and then pay him from the outcoming stock. Do you think the idea is at all worth entertaining; if so, kindly state about what share he should expect? Dauphin District. CHAS. I. LAWRENCE.

Ans.—With good, healthy stock and an attentive man, especially at farrowing time, the idea is feasible. To state definitely what share would be just to both parties is impossible without more details. A larger number of grade sows can be purchased for \$100.00 than pure-bred ones, consequently the grade sows and their progeny would require more feed and work for the same returns, and thus the partner who attended to that part would justly be entitled to a larger proportion of the dividends. The age of the first stock purchased would also make a difference, as in some cases they would require more feed and attention before returns would be forthcoming, so that no conclusive answer can be given to the question as asked. If the money were invested in pigs about two months old, and they were grown and marketed at a weight of 175 to 200 lbs. each when seven months old, the man who fed and cared for them should receive about \$2.00 out of every \$3.00 obtained.

PIPES OR CEMENT TILE FOR IRRIGATION.

I have a large pond held by a dam 13 feet high, some 600 feet from my garden. At present, I am using wooden troughs to convey the water to irrigate the garden, but as the intervening ground is low and, consequently, the troughs high, the wind has considerable force, which often causes them to leak, so I thought possibly by getting moulds I could make cement tile, and place them two feet under the ground with the joints cemented, and then have a tap at the garden end, which would allow me to use the water at pleasure. My garden is one foot lower than bottom of dam, and I wish it arranged that I would not require to go to the dam to turn on the water. I know iron pipes would give satisfaction, but fear that the cost would be more than I care to pay at present. Any advice you can give will be acceptable. H. ANTICKNAP. Regina District.

Ans.—Cement or tile piping would not prove satisfactory in your case. Both are somewhat porous, and no matter how well you cement the joints the heavy pressure of water would be liable to find many weak spots, and, consequently, considerable loss of water be the result. For your purpose the iron pipe would give better results, and as an inch size would likely be as large as you require, the cost would be little if any more than the tile.

when you consider the work of attempting to cement the joints. In laying the pipes, see that they are put safely below danger of frost. By using iron you would not need to go to the pond to turn the water on, but there should be a check valve there to allow of draining the pipe in the fall.

PREPARING LINSÉED FOR CALVES.

What is the best way of preparing linséed so that it will mix satisfactorily with skim milk? I prefer the seeds whole rather than the meal for calves. I have tried boiling it for 3½ hours in water, but still it was very thick, with many of the seeds unbarst; in fact, it formed a jelly, and would not mix with warm skim milk. SUBSCRIBER. Sidney, B. C.

Ans.—There is no better method of preparing linséed for calves than the way you have described, only you have not used sufficient water when boiling it. Had you used more it would not have formed such a thick jelly, and, consequently, would have mixed much more readily with the milk. Many only steep the seeds, but, of course, this is not equal to boiling, and is merely done to save labor.

BURNING STUMPS.

Do you recommend the following method for rotting pine stumps, and will they burn well in the fall if this is done in the spring? Bore an auger hole in the center, put in one ounce saltpetre, and enough water to dissolve same, then plug. A SUBSCRIBER. Okanagan, B. C.

Ans.—We have heard of this plan as being considered of some use in helping stumps to burn, yet are not in a position to strongly recommend it or the reverse. If any of our readers have had experience in burning stumps in this way we would be pleased to hear from them.

EGG PRESERVATIVE.

Which is the better way to keep eggs—from the time they are plentiful until the winter, so that we may get good market—is cold-storage or pickling best? If cold-storage, how is it done? If pickled, what kind and how is it made? We think there is a glycerine pickle; is it expensive?

R. & D.

Ans.—Cold-storage, either by means of ice or by a refrigerator machine, will preserve eggs, but is rather expensive, if one has to build the plant. In some of the larger cities, eggs are kept this way for one cent per dozen for the summer. Pickling is, perhaps, a cheaper way to keep eggs over summer. The best pickle we know of is that made of water-glass solution. Water-glass, or sodium silicate, is for sale at any drug store, in a semi-fluid condition. This is mixed with twenty parts water, and poured over the eggs until the top layer is covered. The eggs are left in this solution until they are required for market. Barrels cut in halves make good casks for storing. When buying in large quantities, water-glass should be had for about \$2.50 to \$3 per cwt. Eggs preserved in the "Glycerine Pickle" returned eighty per cent. bad at the end of a season, where the experiment was tried.

STUBBLE SHEARING.

What is meant by stubble shearing of sheep?

J. R. E.

Ans.—See letters on early shearing in this issue. Stubble shearing means leaving an inch or more of the old wool for the purpose of making the sheep look larger when the showing or selling season arrives. The practice is sometimes carried to ridiculous extremes, nearly one-half the length of wool being left on certain places to hide defects in the formation, the intention evidently being to deceive judges and buyers. A competent judge, however, is apt to consider it a confession of weakness, and will not be deceived by it, as the dry and dead appearance of the old wool is quite apparent, and only leads to a more critical examination for discovery of the falling attempted to be covered up. It is probable that in not a few cases prizes have been lost owing to the suspicion or prejudice created by this practice. The best condition of fleece is secured by close shearing.

BROME GRASS PASTURE.

We sowed a 22-acre field with brome grass seed about the first of last August at the rate of 20 lbs. per acre. How soon would it be advisable to pasture it; also, when could we get seed off a small part of it?

A. BROS.

Gladstone, Man.

Ans.—You may safely pasture it as soon as the grass gets a good start in the spring or early summer. To get the best returns, do not allow it to become beaten down too closely the first season, especially at the time when very dry weather may be expected.

It will bear seed this year, but many prefer to cut the first crop for hay, believing that by so doing many weeds will be destroyed through not being allowed to seed.

Field Notes.

A stallion show will be held at Regina on May 6th.

The Dominion Swine Breeders' Association will contribute the sum of \$84.00 to the prize list of the Winnipeg Industrial Exhibition.

Controlling Elevators.

The following petition, which has been circulated and freely signed by farmers in the Moose Jaw District, was received a few weeks ago from Wm. Watson, but, with considerable other matter of special interest, was unavoidably crowded out of our special Immigration number:

The petition of the undersigned farmers and citizens of the Moose Jaw District humbly sheweth: That the plundering manipulations of the Elevator Combine have become a menace to the peace and prosperity of the country, and cannot and should not be longer endured.

That, while under existing conditions the regulating by preventive legislation on the lines laid down by our Western M. P.'s, Agricultural Societies, Grain-growers' Association and Northwest Senators is a pressing and absolute necessity, yet that past experience incontestably proves that nothing but immaterial, spasmodic and occasional relief can be secured by such legislation. Proof, that after all the acts and amendments of acts passed by the Dominion Parliament, "all good and well directed," the exactions and plunderings of the Elevator Combine are greater now than in any previous year.

That we, therefore, respectfully urge and demand that a new system of farmers' elevators be inaugurated, to be operated in the interest and to the advantage of the producer, instead of, as at present, to that of the Elevator Combine, and that legislation giving effect to this be passed at the approaching session of Parliament, and containing the necessary directions and machinery to start operations the incoming season.

That an annual tax be levied on all grain marketed or passed through elevators in the West, and the proceeds spent exclusively in building said elevators or buying combine elevators. That the last year's estimated crop in Manitoba and the Northwest is 126,000,000 bushels, and, deducting 50,000,000 bushels for seed, feed, and grain otherwise disposed of, 76,000,000 bushels remain to be passed through the elevators.

That a tax of a quarter cent per bushel would yield \$190,000, which would build 38 elevators at an average cost of \$5,000 each.

That if propitious seasons are vouchsafed to us, with the vast influx of immigrants now assured and consequent increased acreage to be put in crop, the quarter cent per bushel would build 50, 75 and 100 elevators per year in the next three years, respectively, or 1,000 in five years.

That if experience and public sentiment, as expressed from time to time by Manitoba and Northwest M. P.'s, Grain-growers' Associations and Agricultural Societies, require it said tax of a quarter cent per bushel be raised or lowered to suit changed conditions, but not to exceed one-half cent per bushel in any one year.

That if the people and Government of Manitoba deem it unnecessary to demand said system at present, that it be put in operation in the Northwest.

That the tax levied be expended in the district where collected.

That in view of the elevator record of the last few years, and the excessive plunderings of the previous and present years, that the Government take into consideration the expediency of collecting a special tax for the remainder of this year, not to exceed one cent per bushel, and that a grant be given this year from the Dominion Treasury, to be repaid, to expedite the building of farmers' elevators.

That Government control and supervision be given to the extent of ensuring that the grain reach its destination without mixing or shading with softer or inferior grain, and such further control as experience shall warrant.

That the Government of the neighboring Republic has battled by legislation with trusts and combines for several years with little or no success.

That under the wise guidance of President Roosevelt a bill has been passed through Congress by a unanimous vote, and is now before the Senate, dealing with this Behemoth of recent years, the keystone of which is—Publicity.

That we are entitled to publicity in elevator transactions.

That we demand that competent, responsible, trustworthy men examine, certify and publish, under oath, the number of bushels received, or bought and sold, at each elevator, and surplus, if any, over what was bought, with prices paid and received; thus putting a check on weight and dockage and making public the exact amount taken from farmers over and above a fair legitimate profit and the rake-off ascertained and sold and the proceeds added to the Farmers' Elevator Fund; it being essential that the vast crops of the West be marketed through elevators.

And your petitioners, as in duty bound, shall ever pray.

A Dominion Exhibition.

An order-in-council, approving of a grant of \$50,000 for a Dominion Exhibition at Toronto this year, has been passed at Ottawa. This, we presume, practically settles the question, and whatever opinions may be entertained as to the reasonableness or otherwise of undertaking to prepare for an adequate display of the Dominion products in the space of four or five months, a brave attempt should now be made to improve the time and appropriation to the best possible advantage in bringing together as good a display as possible under the circumstances in all lines of live stock, agricultural, horticultural and dairy products, and also of the products of our mines and forests, in order that visitors from other lands may be given some idea of the capabilities of the country. Dr. Orlando Orr, the new manager, announces that arrangements are being made for exhibits from the different Provinces, and that another special feature of the exhibition this year will be the display of many important processes of manufacture in all stages.

Eden Bank Creamery.

The report of the directors of the Eden Bank creamery at Sardis, B. C., shows that the creamery received, during the last season, milk and cream testing 104,590 lbs. of butter-fat, which made 118,580 lbs. of butter. This butter sold for an average price (after deducting commissions and freight) of 24.72 cents per pound, an advance of .31 cent per pound over the average price of 1901.

The Wellington Field Naturalists' Club reports red-winged blackbirds, white-rumped shrikes, phoebes and winter wrens as having arrived before March 26th, and flocks of Canadian geese were on that day seen flying northwards. The red-winged blackbirds are later by ten days than last year, the white-rumped shrikes earlier by two days, the phoebes by a day, the winter wrens by eleven days, and the Canadian geese by twelve days. Shepherd's-purse and moosewood were found flowering on the same date.

Hackney Horse Show.

During the first week in March, the Hackney Breeders held their annual show in the Agricultural Hall, London, England. Interest has been developing in the Hackney horse during the last few years, and as a consequence the show was larger in every respect than ever before. The awarding of the final championship to Bashful Kate, a two-year-old Rosador filly, brought on a most remarkable scene for an Old Country show. Queen of the South, owned by Mr. Livesey, a mature mare over 15 hands, was the choice of the spectators, and when she was beaten by the youngster the crowd went wild with excitement. But modern and advanced breeders are somewhat changing the type of the Hackney, and there may be something in the award that is worthy of serious cogitation. Breeders are beginning to realize that the Hackney's place is in the harness and not under the saddle, and in breeding to this latter type old ideals of style and action may have to be slightly changed. The male championship was won by Mr. C. E. Galbraith's Administrator, with Garton Sirdar, owned by Mr. Buttle, reserve. This decision was, apparently, popular and just. The show throughout was most successful, and the awards generally satisfactory. A proper realization of the real province of the Hackney horse is one of the most certain signs that in the future he will become more popular than ever. To his credit it can be said that for soundness and style he is easily in the first rank of harness horses, and, whether to his credit or not, he succeeded in beating the Thoroughbreds in jumping at the Hunter Show, which followed that of the Hackneys.

Shire Horse Show in London.

The last week in February and the first two weeks in March saw remarkable activity in the horse business in Old London. The interest began with the annual Shire Horse Show. The entries, though fairly satisfactory, were not as large as in recent previous years, but the quality of the exhibit was well maintained. A remarkable feature in connection with the Shire horse is his popularity with the rich classes, among whom his breeding is followed as a hobby, a pastime and, in some instances, as a profitable occupation. This feature made itself manifest this year in the conspicuous absence of farmers' names from the catalogues and prize lists. This, however, does not decrease the popularity of the Shire with the farmers. The championship in the stallion classes again fell to Stroxtan Tom, Messrs. Forshaw & Sons' eleven-year-old horse, who was winner of the same honor last year. His reserve this year was the three-year-old Birdsall Menestrel, same owners. When the females had finished their contest, Lord Rothschild's Solace, nine years old, by Lord Arthur; dam Madame Albani, by Prince William, was in possession of the Gold Challenge Cup and champion cup for the best mare, her stable companion, Guilder Rose, standing as her reserve. The gold medal which is presented to the breeder of the championship mare thus fell to His Majesty the King, who received the token from the president of the Shire Horse Society amid the wildest enthusiasm.

The Cattle-guards Question.

Mr. E. A. Lancaster, M. P., of St. Catharines, Ont., has again introduced in the House of Commons his Cattle-guard Bill, the substance of which simply is to compel the railways to use a guard that will turn cattle. In other words, it makes the railway companies responsible for cattle killed on the tracks if they do not protect the highway crossings with proper guards. This is practically as the law used to be. He asked that Parliament itself pronounce upon the principle and not refer it to the Railway Committee, where it was blocked last session. Dr. Sproule, M. P., remarked that the committee was the graveyard of bills of that sort. Pending the report of the famous Cattle-guards Commission, the bill was sent to committee.

Extension of Markets Division.

Mr. W. W. Moore has been appointed Chief of the Extension of Markets Division of the Dominion Department of Agriculture. The work that has been carried on by Prof. Robertson, under this head, has grown so extensively of late that it has been considered wise to establish a separate division. Mr. Moore has been in the Department for a number of years. He visited South Africa in connection with the shipments of Canadian products there during the late war, and on his return had charge of all the shipping of supplies for the Imperial Government.

An Independent Line.

The business men of Calgary, Edmonton, Wetaskiwin and other points on the C. & E. Railway have undertaken the construction of an independent telephone line. No line of telephone communication at present exists, and the promoters are to be commended for their enterprise in not only aiming to provide a necessity, but in building a line which they themselves will control.

Calgary Stock-yards.

A Montreal syndicate has arranged with the city of Calgary to establish large stock-yards in that active center of stock-raising. The company is purchasing twenty acres of land at \$1,000, agreeing to give the city fifty per cent. of the market fees and to erect buildings to the value of \$6,000 the first year.

Meeting of Stock Breeders' Executive.

The executive committee of each of the live-stock associations met for the transaction of business in the secretary's office, Winnipeg, on March 18th. The principal items which came up for consideration were the revision of the Winnipeg Industrial prize list, the selection of judges for the leading shows, the proposition to hold a winter fair, and the advisability of sending a few cars of stock to the Calgary Fair. At the cattle breeders' meeting it was decided to recommend to the Exhibition Board that the age of cattle be estimated to July 1st, instead of July 15th, as heretofore.

In the past there has been dissatisfaction in the class for aged cows, as some females that were said to be barren have been allowed to win. Every member of the executive felt that the time had come when the rule prohibiting this would have to be rigidly enforced, and it was decided to recommend that the word "indisputable" be inserted after the word show in the second line of clause 3 of cattle rules.

To enable visitors to have a better knowledge of the cattle which were being shown in the ring, it was decided to ask that it be made compulsory for each attendant in coming into the ring with an animal to bear a double card, one to hang on his back and the other on his breast, announcing the catalogue number, weight and age of the animal which he held.

In the prize list for horses, a class of three sections was added for Percherons. For aged stallion, the prizes will be \$25, \$15 and \$10; three-year-old, \$20, \$10 and \$5; and two-year-olds, \$10, \$8 and \$4 each. A special prize of \$15 has also been added for Clydesdale mare, not necessarily a breeder, and for champion stallion and mare in each class a diploma ribbon will be awarded.

The show of dairy products will be encouraged this year by an addition of \$200, which has been added to the creamery butter classes, in lieu of what was withheld last year on a sustained protest. There will also be two buttermaking competitions—one for men and the other for women—\$73.00 being added for this purpose.

A few splendid cash contributions have been made towards making the prize list one that will draw out good competition. The Massey-Harris Co. are giving ten per cent. of the cash prizes in the cattle classes, and W. S. Lister, Middlechurch, has donated a \$100 cup to the champion Shorthorn, either male or female, the same to be won two years before becoming the property of an exhibitor. He also donated \$25 for the reserve for championship. The prize list is now in the hands of the printer, and will be out in a few days.

Brandon Farmers' Institute Meeting.

The regular monthly meeting of this Institute was held in the Council Chamber, on the 21st ultimo, with President Kennedy in the chair, there being about 20 members present. After the routine business had been transacted, the chairman introduced the speaker of the afternoon, Mr. Harry Brown, Horticulturist of the Experimental Farm. The subject of Mr. Brown's address was, "A General Review of Horticultural Experiments at the Brandon Experimental Farm," and the speaker, during a lengthy address, touched upon all the vital topics of horticulture in Manitoba. The various headings are apple-growing, plum-growing and cherry-growing, followed by a review of the small-fruit question. Vegetables were next taken up, together with a resume of the Farm experiments in hedges, flowering shrubs, and annual and perennial flowers. At the conclusion of the address, there was a very interesting discussion, and a hearty vote of thanks was tendered Mr. Brown. The suggestion was made and heartily endorsed by the meeting, that in view of the comprehensiveness of the address and of the valuable data contained therein, it be published in pamphlet form and several thousand copies distributed throughout the Province. This was made feasible by the generous donation for this purpose of \$25 by Mr. Wallace, the well-known nurseryman, of Brandon, and a committee was appointed to carry it into effect, which, when accomplished, should prove of great value to all interested in Manitoba horticulture.

The Transportation Commission.

Sir William Van Horne, Montreal; Mr. John Bertram, Toronto, and Mr. Harold Kennedy, Quebec, were on April 6th appointed members of the Transportation Commission. It is supposed that the Commission will be called together at an early date. This Commission is entirely distinct from the permanent Railway Commission, and is of a temporary character, its business being to report upon the immediate improvements required in Canadian transportation facilities, including all-Canadian route to seaboard and terminal facilities.

Smut Preventives.

The best way to treat smut is to prevent it. Dissolve a pound of bluestone in a wooden pail of water for every eight or ten bushels of wheat to be treated. The solution may be sprinkled on with a watering can, the grain being frequently turned in a small pile, or the wheat can be immersed in the pickle for a few minutes by being suspended in a sack in a tub containing the liquid. Formalin, two ounces to three gallons of water, and one gallon of the liquid to each bushel of grain, is found most satisfactory to sprinkle upon oats. Barley may be treated the same way, but with a stronger solution.

South Brandon Institute Meeting.

An Institute meeting was held under the auspices of the South Brandon Agricultural Society, in the Oddfellows' Hall, Wawanessa, on Friday afternoon, March 13th. Owing to the bad condition of the roads, there was not so large an attendance as was expected, but most of the prominent farmers of the district were present. Mr. A. Naismith, President of the Society, occupied the chair during the meeting. The first speaker was Mr. S. J. Thompson, Prov. Vet., who spoke on ventilation of farm buildings and diseases of animals, two very important subjects to the farmer. His address was delivered in a thorough and masterly manner, showing that he fully understood the subjects under consideration.

The second speaker was Mr. Stephen Benson, of Neepawa, who spoke on soil cultivation. Mr. Benson is not altogether a stranger in Wawanessa, and his subject was highly appreciated by his friends in the audience. Many new and useful methods were introduced and explained, especially as regards fertilization and pasturage. Mr. Benson is a good, practical farmer and in his address it was a farmer talking to his brother farmers, showing them how to succeed and how to avoid failure. In the active discussions which followed, many points were brought out which should be of advantage to those present.

At a meeting held some time ago, it was decided to hold the annual exhibition of the South Brandon Agricultural Society on Thursday, July 16th, 1903, at Wawanessa. As usual, special railway connections and reduced rates will prevail for the benefit of outsiders.

A. W. J.

Hartney District Seeding.

The first report to reach this office of seeding having begun came from the Hartney district, where three seeders began drilling in the seed April 1st, on farm of Chas. Thomas.

Markets.

Winnipeg Markets.

The live-stock market continues quiet, the receipts in general having been small for the last two weeks.

Cattle.—No change in particular has taken place in the cattle market of late. The supply for butchering is mostly coming from Western points. The best butchers' steers bring 4c. to 4½c. per pound; medium quality, 3½c. to 3¾c.; yearling stockers, \$16 to \$17, and two-year-olds, \$17 to \$22. Milch cows are in fair demand at \$35 to \$50.

Sheep.—Nothing being done. Hogs.—A moderate supply of hogs are coming forward, and for the choice bacon type, weighing from 160 to 250 pounds, 5½c. to 6c. is being paid, while the best for heavy, and light weights is about 5c. per pound.

Horses.—There has of late been a very active demand for good work horses. Farmers and contractors have been strong bidders for the strong-boned, muscular fellow fit to go in heavy leather. The principal supply has been coming from the east, but a few cars have arrived from the south. Good teams bring from \$350 to \$400 each.

DRESSED MEATS.

The market for dressed meat remains about the same as when last reported.

Beef.—6c. to 7½c. per pound. Mutton.—There is practically no mutton being offered, but choice would sell at 10 cents per pound, and lamb 11 cents to 12 cents.

Pork.—Dressed hogs bring 7c. to 7½c. per pound.

DAIRY PRODUCTS.

Butter.—The receipts of butter have increased considerably of late. For choice creamery 23c. per pound is being paid, with really good dairy rolls going at 21c. to 22c., and inferior grades as low as 10c. per pound.

POULTRY AND EGGS.

Poultry supplies are very light, but dressed chickens would find a ready sale at 11½c. to 13c. per pound, with 9c. to 10c. for geese and ducks, and 15c. for turkeys.

Eggs.—Receipts of eggs have increased very greatly with the advent of milder weather, and prices have lowered to from 12c. to 14c. per dozen for packed and 18c. to 20c. for guaranteed fresh.

GRAIN MARKET.

Wheat.—Although the prices for wheat have fluctuated considerably since our last report, quotations remain much the same, No. 1 hard being quoted 74c. at Winnipeg and 76½c. at Fort William.

Oats.—The market for oats has not advanced to any extent since last report. No. 1 white, in cars on the track, is quoted at 32c. per bushel, with No. 2 29c., and feed ranging from 26c. to 28c. per bushel.

Barley.—The market for barley continues firm at 34c. to 36c. per bushel.

Spelt.—Spelt is in good demand at 32c. per bushel.

Mill Feed.—Bran is changing hands at \$16 per ton, and shorts at \$18, oat chop \$21, and barley at \$16 to \$17 per ton.

Hay.—The supply of hay is quite equal to the demand, at \$5.50 to \$6.00 per ton for baled, and \$5.00 to \$5.50 for loose.

Montreal Markets.

Montreal, April 6.—About 1,300 head of butchers' cattle, 90 calves, and 65 sheep and lambs were offered for sale at the East End Abattoir to-day. The butchers were out in full force, and trade was brisk, with prices rather lower than on last week's markets, quality considered. There were liberal supplies of Easter beef, and prices ranged from 5c. to 6c. per lb.; very few brought over 5½c. per lb. Prime heaves sold at about 4½c., medium cattle at 3½c. to 4½c., and the common stock at from 2½c. to 3½c. per lb.

There were about fifty milch cows on the market, but there was not much demand for them. Prices ranged from \$25 to \$55 each.

Calves sold at from \$2 to \$4 each.

Fat hogs are very plentiful, and sold at from 6½c. to 6¾c. per lb., weighed off the cars.

Grain on Passage.

	Wheat & Flour Bushels.	Corn Bushels.
To the U. K.	19,200,000	3,840,000
To the Continent	13,840,000	6,880,000
Total	33,040,000	10,720,000
Last week	29,360,000	12,400,000
This week last year	46,320,000	6,880,000
Same week, 1901	46,104,000	9,824,000

The total wheat in sight to-day, consisting of the amount on passage and the visible supply in Canada and the United States, is 74,998,000 bushels, compared with 72,551,000 bushels last week, 94,734,000 bushels this week last year, and 69,994,000 bushels for the same week in 1901. The amount of corn in sight is 20,431,000 bushels, compared with 22,603,000 bushels last week, 15,388,000 bushels this week last year, and 31,614,000 bushels for this week in 1901.

Chicago Markets.

Chicago, April 6.—Cattle—Receipts, 29,000; slow and lower; good to prime steers, \$4.80 to \$5.50; poor to medium, \$4 to \$4.75; stockers and feeders, \$2.75 to \$4.75; cows, \$1.50 to \$4.50; heifers, \$2.50 to \$5; canners, \$1.50 to \$2.75; bulls, \$2.50 to \$4.50; calves, \$3 to \$5.

Hogs.—Receipts, 28,000; market slow and 6c. lower; mixed and butchers', \$7.10 to \$7.30; good to choice heavy, \$7.35 to \$7.50; rough heavy, \$7.10 to \$7.35; light, \$6.85 to \$7.20; bulk of sales, \$7.15 to \$7.35.

Sheep.—Sheep and lambs, \$5.50 to \$7.60.

World's Visible Grain Supply.

	April 6, 1903.	April 7, 1902.	April 8, 1901.
Wheat	41,958,000	48,414,000	53,890,000
Corn	9,841,000	8,508,000	21,990,000
Oats	7,339,000	8,300,000	11,399,000
Rye	1,118,000	2,016,000	1,120,000
Barley	1,708,000	1,455,000	950,000

Wheat decreased 1,333,000 bushels last week. Corn decreased 361,000 bushels, and oats increased 32,000 bushels. A year ago wheat decreased 1,151,000 bushels.

World's Wheat Shipments.

	April 6, 1903.	April 7, 1902.	April 8, 1901.
America	3,130,974	4,447,000	4,699,000
Argentina	3,890,000	1,160,000	1,696,000
Australia		360,000	451,000
Danube	384,000	632,000	424,000
India	168,000	224,000	
Russia	3,376,000	1,940,000	832,000
Total	10,948,974	8,663,000	8,102,000

British Cattle Markets.

London, April 6.—American cattle, 6½d.; Argentinian, 6½d.; sheep, 7d.

Liverpool, April 6.—Canadian cattle, 6½d.

Crippled Pigs and Vicious Stallion.

1. Purchased seven fat pigs, weighing one hundred pounds each. Next day four became lame in right hind leg, and soon complete cripples, and died in four days. I turned the others out, and cut off their feed, and they escaped.

2. Stallion will not allow his feet to be handled. We cannot shoe him. Some advise giving laudanum. Is it safe? J. B. C.

Ans.—1. The pigs became crippled and died from digestive trouble and want of exercise. The treatment you adopted for the three that are still alive was correct. In addition it would have been good practice to have purged them with about six ounces Epsom salts.

2. If coaxing and kindness will not succeed in getting the stallion to allow the handling of his feet, he must be forced to submit. The application of a twitch on his upper lip and another on his ear, may suffice. If not, a rope attached to the foot and through a pulley near the ceiling, and his foot held up, will probably succeed; if not, hobbles can be put on the brute cast, and one foot liberated at a time and held by a special rope.



"And ev'ry bird and ev'ry tree,
And ev'ry opening flower,
Proclaim His glorious victory,
His resurrection power.
The folds are glad, the fields rejoice,
With vernal verdure spread;
The little hills lift up their voice,
And shout that Death is dead."
—Easter Hymn.

A Western Sheep Story.

[By a Farmer's Wife, in Assinibola.]

When we left our city home in the far east to start farming in this country, I had very dim visions of what it would be like on the vast prairie lands.

Born and raised on an old Ontario farm of the average size, fenced with stake-and-rider or zigzag rail fences, and with a delightful piece of woods at the rear, where we could ramble in spring to hunt the early spring flowers, and, later on, to gather red and black raspberries on the edge, where there was a pasture full of dear old stumps and brush heaps, from the tops of which the largest and most luscious berries protruded, tempting us higher and farther, mayhap to suddenly dash our hopes and our pail of berries down to a seemingly bottomless abyss, I found things here very strange.

One of my recollections was that when a child of somewhere about seven or eight years of age, my dear father used to take me in the sunny days of winter to a large old barnyard nearly enclosed with barns and sheds. On one side there was an old log, where he used to seat me to hold a dish of salt, while he opened the door of the sheep-pen, letting out a flock of soft, woolly creatures, which came at first very cautiously, while I held my breath for fear of frightening them. One old ewe would eye me cannily, then nibble a taste of salt out of my pan. After that there would be such a hustling that I had hard work to keep my seat and my dish, and, forgetting all need of caution, would scream and laugh till almost exhausted with the fun.

What was a farm without sheep? It could not be. Thus I thought, and thus I planned "the best concerted schemes, etc." Reality—a ten-by-twelve shanty, standing, a single lonely object, on a limitless expanse bounded by a distant horizon, peopled only by gophers, jack-rabbits, coyotes and foxes. Was that a place for sheep? Not, certainly, without a herder and "shaggy-nep" and a good corral, and we had none of these. That part of my dream was shattered then. Time wore on. We arrived at the eleventh year of settlement of our prairie farm, with all the successes and failures of that period behind us. We had comfortable buildings for ourselves, cattle and horses, besides a fenced-in pasture. Now surely we could venture on some sheep. The only kind that were available at that particular time were some nearly pure-bred Merinos. We bought four ewes, and brought them proudly home; they were an almost ceaseless curiosity to our children, with their pretty, curving horns and funny "tricks and manners." They were not tame enough to stay in the pasture with the cows, and the three-wired fence would not, of course, keep them, so we tethered them, not to a stone, as our old ballad in the National Reader used to run, but to an iron screw stake. For a few days the poor things spent most of their time in starting from the stake on the full run, ending with a jerk, which would throw them down breathless, but, undaunted, they would walk deliberately back and try it over again. It seemed as if they would break their poor necks, but no damage was done, and they soon became used to the tether. Before the summer was out we more than doubled our stock, for there were some twin lambs, and what fun they and the children had together! We bought some sheep shears, and my husband started to renew his acquaintance with them, with the result of bringing almost as many wrinkles on his face as there were wrinkles on the skin of the Merinos. Our first crop of wool was not very heavy, but we were proud of it, and after washing and picking, it was made into various cushions and other comforts. Then we had a lamb or two to kill, which was a nice change in our meat diet. The next year, we bought some good Shropshire sheep and added them to our flock, at the same time fencing a small pasture with five wires, as we had too many to tether, and we also built a nice sheep-pen or stable for them. Now, just here let me whisper a caution into the ear of anyone who contemplates doing likewise. Do not be cajoled into buying a nice tame old ewe which has been a special favorite and pet. We did, to our sorrow. She would

not stay anywhere, except as she wished herself, but would just put her quiet old head under the lowest wire and shove herself under, and when we saw her in the oat field or in the garden and started to drive her back into the pasture, she would lift her head, giving us a knowing look, and before we reached the spot where she had been in mischief, she would be back eating her own pasture so innocently that no one would suspect she was the well-trained marauder.

Did I hear you say that sheep were stupid things? Well, then, you have not had much experience with them, or else you have not taken much notice of their ways. We had a big dog which was very fond of all our domestic animals, and he took kindly to our sheep at once, driving any stray dog out of the field very savagely and trying his best to protect the defenceless things. When the young lambs came, he endeavored to make friends with them, but their mothers drew the line there, even chasing the poor brute into the open door of the kitchen and butting him down in a corner, till our laughter turned to pity and we came to his rescue.

To return to our old ewe. She taught the other sheep her trick of slipping under the wire, so that even though she was relegated to the butcher, her deeds lived after her. Her sins were visited even to the third and fourth generations, so that, eventually, they proved their ruin. We were very much interested in all that pertained to sheep raising and keeping. We sent to Ontario and brought out the old spinning-wheel, with its companions, "reel and swifts," bought a pair of cards, and were then equipped for business. We visited a kind neighbor who knew more than we did along that line, and learned to card our wool into rolls, also to spin it, and felt we had gained an accomplishment. It was a pleasure and welcome change from our other work to turn our soft, clean wool into fine or coarse yarn at our will, color it to our taste, and knit or crochet it into many useful articles of clothing, which added much to our comfort. We improved and increased our flock, until our average shearing ran up to fourteen and two-thirds pounds a fleece, and the mutton weighed about one hundred pounds to a carcass.

About three years ago, our men declared themselves tired of seeing their oats cut off in the vicinity of the sheep pasture, and so we parted with our woolly pets, until the time comes, if it ever does, when we may have a Page wire fence or something of that sort which will succeed in keeping sheep within their proper enclosure. We miss the fresh mutton in summer, when it is so difficult to procure fresh meat from a distance, and we miss the good mutton for winter, which I consider preferable to beef or pork. And I still maintain my former opinion that a farm is incomplete without a flock of sheep. They are easily fed and tended, and are sure to be profitable in this country.

Cottonwood, Assa.

Foods.

[By a Trained Nurse.]

We use the word "taste" in the general sense of fitness. We say a woman has good taste when she can arrange a room to look attractive, when she can put on her gowns in a becoming fashion, or when she can choose suitable gifts for her friends. Let us not forget that this artistic, genteel expression owes its existence to that commonplace, or, as some would have us believe, "lowest sense" from which it is called. The fact is, because we have not esteemed it more worthy, most of our number have unconsciously cultivated our sense of taste in a wrong direction, so that we prefer foods which are unwholesome.

F. B. Meyer says: "The pleasure which accompanies the gratification of appetite is one of the greatest driving forces of human life. We expend time and strength in procuring our daily bread, not only because we dread the pangs of hunger, but because of the zest and enjoyment which associate with appetizing food. . . . Because this pleasure is so great we are apt to seek it as an end in itself." It is just here that we women have been failing our men folk. We have been aiming to give them food which would please their palate, oftentimes not even questioning whether it would nourish their bodies or not, rather than aiming to give them food which would cultivate a taste for the agreeable, natural flavors of wholesome foods. Fortunately, the demand for more wholesome food is increasing so greatly that we have a school of domestic science in nearly every city. Instruction in food values and the right proportions of the different constituents required to nourish the human body is within reach of all who desire it. Let us, who eat every day of our lives, who even prepare food for others to eat, awaken to the fact that we have in our power tastes which are growing in a right or a wrong direction. Let us realize a truth very important to most of us, that we can cultivate an appetite for strength-producing foods in those for whom we labor as well as in ourselves. Ask any medical man who has studied the subject and he will admit that most people eat too much. Take for instance bread, and he will tell you that to get an ordinary amount of nourishment out of it as it is generally prepared at present, one is obliged to take more than would be abundance were all the component parts of wheat allowed to have their place in flour.

Many people "eat to keep up their strength," but such eating merely clogs up a system already suffi-

ciently burdened and doing its best to keep more material from being forced upon it. For such persons to regain healthy appetites, one very good plan is to go without one meal a day, giving the other two better mastication than usual, until the zest of a normal appetite returns. Not until the animal system has reduced the surplus of old, unused material can one expect to have an accurate sense of what is really required to build up vigorous appetites. But a thoroughly normal appetite is a true guide—what else could it be?

To gain the best results from food, we have to begin with the children in our homes; and begin by teaching them to chew their food well, and to scorn taking too much. If, to make this worth their while, we prepare food such as will nourish them, while being none the less pleasing to the taste, we shall have the satisfaction of seeing our children grow up strong, well-formed and vigorous. We shall find that, under such a regime, children will not often call for "a piece," and that their mental faculties will be more alert and roundly developed than those of their too-much-starch-fed neighbors. The unperverted taste of a child will in every case be found to guide to foods which are suitable for him. For instance, to a child who craves too many sweets give a moderate supply of honey at his daily meals for a time, and watch how he improves. A lady of our acquaintance, by adding a little lime water to his ordinary drink, effectually cured her little son of eating plaster, which he used to detach whenever he could from the walls. The rule simply is to give a pure form of the substance his appetite calls for, thus supplying the real need which his taste points out. A child should never be urged to eat, but if he lacks appetite, lead him to exercise in the open air. Oxygen is, for the time being, the food he really requires. It is almost criminal to force food into a child's stomach, where it must needs ferment and cause childish ailments or lay the foundation for dyspepsia in future years.

A noted authority says the required proportions for the common wants of the animal system are about nine of fat, twenty-two parts of muscle-forming substances and sixty-nine of starches, with sugar and mineral salts. Experiments have shown that a constant deficiency in any one of these component parts results in a weakened or diseased condition of the system. The following are a few suggestions for supplying these parts of food at an ordinary table:

Whole wheat contains all the properties required of food in nearly their correct proportions, besides a waste product, which assists materially in their digestion. In the ordinary white bread that is used on most tables, we have removed the other constituents and left only the heat and force producing parts. We restore the muscle-producers by the use of fresh, lean meats, but these are neither available nor desirable all the year round, and this diet alone would leave our table deficient in mineral salts. Vegetables contain the latter food, but in the usual way of cooking vegetables—boiling and pouring off the water in which they have been boiled—these salts have been lost.

Considering these things, it is not difficult for anyone, though not deeply versed in the science of food values, to have them prepared in such a way that her household will get the best of nourishment. First: By having whole-wheat flour in constant use, and letting it gradually take the place of the common white flour. Second: By boiling vegetables in very little water, so as not to require to drain off the mineral salts; or, better still, by baking or steaming them. Tidy a Hubbard squash cut in halves, and turned severed side down upon a baking dish, with sufficient water to prevent burning while it bakes. When it is done, scoop out from the shell and mash with butter in the usual way. A little variation of this sort in the same line will spoil one's taste for the half-flavored vegetables which are usually served, and this way of cooking is not in the least more difficult than the time-honored methods which we have been following with rather poor results. The use of a liberal supply of pure drinking water should also be encouraged between meals.

With these simple changes, and with moderation in the use of food, a certain class of ills affecting our well-to-do farmers' families would vanish. Their cause is simply an over-supply of food-stuffs and a lack of some which are needed, but which are within easy reach of all. It is good taste which calls for wholesome foods. It is good sense which supplies them. S. Z. R. Winnipeg.

The Spring Awakening.

The little gray squirrel is rubbing his eyes,
For his sleep was long and sound,
And the woodchuck peeps at the glowing skies
From his chamber underground.
Old Bruin is shambling from out his den
With a dazed and stupid air,
And song-birds are flying back again,
A message of spring to bear.
The butterfly crawls from its chrysalis,
The beetles rouse from their nap,
And blossoms awake at the south wind's kiss
And the rain-drop's gentle tap.
From their icy fetters the streamlets leap,
The woodlands with music ring.
All things are awakening from winter sleep,
To welcome the merry spring.

—From Our Dumb Animals.

In Ways that We Know Not.

I sometimes think God lets our sorrows gather
Till joy is hidden by pain's heavy cloud,
That in the darkness we may find "Our Father"—
We need him when the heart and head are bowed.
I sometimes think He lets friends fall and falter,
To show us earthly gifts are insecure;
The bleeding hearts we lay upon His altar,
Of healing and of solace may be sure.
I sometimes think he strews our path with roses,
And when we find that each one hides a thorn
He takes us by the hand and gently shows us
That not to live to self has man been born.
I sometimes think when he seems all unheeding,
Turning deaf ears unto our wild request,
In silent pity His great heart is bleeding
Because to grant us it were not the best.
I always think, in His divine compassion,
Not one will perish from His loving hands;
Knowing our weakness and strength of passion,
He pities us—because He understands.
M. Hedderwick Prowne.

Be on the Watch.

A gentleman stopped suddenly before a sign that told him messenger boys were to be had inside. He hesitated, and then went in.

"How many boys have you in just now?" he asked.

"Six," was the reply; "it's dull to-day."

"Then they're all here," said the gentleman, looking round, while the boys themselves were all attention, wondering "what was up."

"Boys," said the gentleman, eyeing them scrutinizingly, "I suppose you know there is an exhibition of trained dogs to-night?"

The faces of the boys showed that they were perfectly aware of that fact, and that they might give him some points in regard to it.

"Well, I'm looking for a boy to take a blind man to see it."

A titter was the first response; then followed a variety of expressions, as: "A blind man!" "You're foolin'!" "What could a blind man see?" and "You can't guy us that way!"

"I'm not guying; I'm in earnest," said Mr. Davis, and then, looking at one of the boys who had said nothing, he asked:

"Well, what do you think of it?"

"I think I could do it," was the reply. "Yes, I'm sure I could, sir."

"How do you propose to make him see it?"

"Through my eyes, sir. That's the only way he could see it."

"You're the boy I'm after," said Mr. Davis, and he arranged for him to meet the blind man.

The exhibition was in a large theatre, and the blind man and his guide had a box to themselves, where they could disturb no one; but Mr. Davis, from his seat in the audience, knew that the boy was telling what went on so that the blind man could understand, and others in the audience became interested in the messenger boy and his companion, who, though carrying on an animated conversation, seemed absorbed and excited over everything that went on. Indeed, no one applauded more heartily than the blind man himself.

The following day Mr. Davis again appeared among the messenger boys, and after a few words with the manager, said:

"Boys, there was a chance offered every one of you yesterday—a chance for lifting yourselves up in the world—but only one of you grasped it. My friend, the blind man, has felt for some time that he might get much pleasure out of life if he could find some young eyes to do his seeing for him, with an owner who would report intelligently. My stopping here yesterday was with the thought that possibly such a pair of eyes could be found here. It was an opportunity held out to every one of you, but only one understood and grasped it. For the rest of you it was a lost opportunity, for my friend is delighted with the experiment—says he is sure I hit upon the one boy in town who will suit him, and has offered him a good position, with a fine salary. Messenger boys are easy to get, but a boy who can make a blind man see is at a premium. And yet you might—well, you see, that boy, although he did not know it, was on the watch for a good opportunity, and when it came he knew how to manage it. It is the only way to keep good opportunities from slipping away, boys; you must be on the watch for them."—[Canadian Churchman.

"A Safe Refuge."

The mantle of Landseer has certainly fallen upon the shoulders and inspired the brush of the painter of this speaking picture. In dog language, the baffled little tormentors of the hunted pussy plainly acknowledge themselves beaten; pussy smiles serene and content in her safe refuge, the paws of the magnificent creature protecting her, and the beneficent monster himself, by not a wave of his tail or a movement of his jaws, deigns to acknowledge the presence of the yapping and snarling little beasts which can do

her no further harm. Mr. Sperling has given us another version of "Dignity and Impudence," with the inference that the big bullies, which, alas! exist as but too frequent blots upon creation, are more often to be found on two legs than on four.
H. A. B.



My dear Guests,—

"In these green days,
Life flows afresh; and young-ey'd health exalts
The whole creation round. Contentment walks
The sunny glade, and feels an inward bliss
Spring o'er his mind, beyond the power of Kings
To purchase."
—Thomson.

Who could talk of commonplace tasks or moralize o'er prosy realities when all the latent poesy in one's being wakes to new life, and every pulse is thrilling at the magic touch of spring?

"She comes! The loosen'd rivulets run;
The frost-bead melts upon her golden hair;
Her mantle, slowly greening in the sun,
Now wraps her close, now arching leaves her bare
To breaths of balmy air."

Out in the woodland, in sequestered nooks, perchance we may find some remnants of the winter's almost departed glory, while near at hand, if we look closely, we may discover many three-cleft leaves, whose delicate veining and shading is surpassed in beauty only by the dainty white or heliotrope blossoms springing from the same root; if, before, we doubted the reality of the coming of the springtime, their delicious fragrance waits us full assurance of the fact. But we must become as children, and bend low to another earth ere she shall discover to us these frail beauties, for they are very modest, and nestle closely to her breast, so that only very observant eyes notice their hiding-places. The thick-spotted leaves of the dog-tooth violet appear in profusion about the same time, and soon their golden bells will reward our search. Yet a few days more and the exquisite but fast-fading blood-root will rear its snowy petals in rivalry to its neighbor, the white trillium; while violets, spring beauty, dicentra, wild phlox, and that fragile blossom that somewhat resembles our garden mignonette, all assemble to hear the sermonettes of Mr. Jack-in-the-pulpit. A very pleasing preacher he must be, for his audience never seems

to tire of him, but congregate faithfully year after year, at the appointed time.

What joy to live in the country at this glad season! The person who has never rambled through the woods in search of the first wild-flowers, and come home with hands well laden, has missed one of the cardinal joys of life. The flower gatherer should not be insatiable, however, but leave some blooms to fulfil their most important mission, viz., to propagate their kind, that those who follow in future years may share the delight they furnish.

How well I remember, in the old school-days, the gala appearance of the teacher's desk every bright spring morning! We children vied with one another in presenting her with the choicest treasures of the neighboring fields and woods, feeling well repaid by the smile of appreciation with which they were received. When we allow our thoughts to wander retrospectively to the bright hours of childhood, we are apt to long regretfully for those days.

"When life was like a story, holding neither sob nor sigh,
In the olden golden glory of the days gone by."

Those golden moments cannot return, but we might experience once again some of their old-time joy if we would, child-like, live more in touch with nature in her many moods. Some suppose that the cares the years have brought us have dulled our sense of enjoyment in these simple pleasures, but I think, on the contrary, that the heart that is world-worn and weary realizes in fuller measure the peace, the quiet restfulness, that comes from communing with nature. Occasionally, then, when sunshine and bird-song invitingly call you, fling care to the winds, and live again, at least in fancy, a few of your childhood's hours, roaming o'er fields and through woodlands, noting the deepening emerald of the grass, the swelling of the buds, and the bursting into bloom of spring's first fair wildlings. What though your housecleaning lags for a day, is it not as important to brush the cobwebs from your heart and spirits as to banish those that hide in the less-frequented apartments of your home? Do both, by all means; certainly do the former at any cost, and you shall be better-fitted to accomplish the latter.

Effie C. Freeman.—You can procure the Perry pictures from the Perry Picture Co., Malden, Mass., at the rate of one-cent each for twenty-five or more. A two-cent stamp will obtain a complete catalogue. If you order any before getting catalogue, it will be necessary to mention whether you prefer landscapes, flowers, animals, etc. I trust that you may find some that will be helpful to you in your work. I shall be glad to hear from you again.

THE HOSTESS.

"Smoking on the car?" exclaimed the disgusted woman, as Dennis Flaherty, with his short-stemmed pipe, took the seat beside her.

"O! am!" rejoined Dennis, between long and determined puffs. "And av ye don't tolke ut, go wan up froot. These sates is resairved for smokers."

"If you were my husband, I'd give you poison."

"Would ye, now?" (Puff, puff.) "O! think, av ye wor me wolfe"—puff, puff—"O!d take ut."



"A SAFE REFUGE."

(H. Sperling.)

The Quiet Hour.

"What Think Ye of Christ?"

"The energies of all parties engaged in this conflict are gathered ever more and more around the Person of Christ as the central point at which the matter must be determined."—Dornier.

We live in an age of religious discussion. One man believes this, another believes that, while a third believes nothing—but none of them are satisfied to leave the subject of religion undiscussed. The Bible is a battle-field where many a wordy war is waged; every book, every sentence, is criticised and put to the proof. But all the time one great question, ranging down the ages, is put individually to each of us—a question which we neglect to answer at our peril. We may not be able to give an opinion about Egyptian or Babylonian inscriptions, but let us see to it that the most important question of all is not left unanswered, "What think ye of Christ?" Jesus asks that question of you and of me, as He asked the Pharisees long ago; He still says to those who claim to be disciples, "Whom say ye that I am?"

The answer to that question makes all the difference between light and darkness here, as well as after death. Either we are helpless and alone, with no one to answer our prayers, with no meaning in sorrow or pain; or else we are in the hands of One who sits as a "refiner and purifier of silver." If the Son of God really became one with man, raising our human nature infinitely by the marvelous indwelling of

"God's presence and His very Self,
And essence all divine."

then it is indeed a glorious thing to be alive. Let us not be content merely to exist—

"This life whereof our nerves are scant,
More life and fuller that I want."

How are we to get this life? Our Lord Himself answers, "Search the Scriptures, for in them ye think ye have eternal life; and they are they which testify of Me." Then he adds the sad truth: "And ye will not come to Me that ye might have life." The world is willing enough to talk about Jesus of Nazareth. Generation after generation is forced to admit, "I find in Him no fault at all." Every unprejudiced critic must own that "Never man spake like this Man." But that is not enough, for He only reveals Himself to disciples. He manifests Himself to those who are willing to obey God. "If any man will do His will, he shall know of the doctrine, whether it be of God." What think ye of Christ, as the Gospels paint Him? It has often been pointed out that four principal characteristics distinguish Jesus of Nazareth from all other good men. The first is that His preaching centers in Himself—"I am the light of the world; I am the bread of life; I am the way, the truth, and the life." How often does He make such declarations as these? Would they be accepted from any other lips? Bowen says: "All other servants of the Most High preach Him whom they serve. If Luther or Wesley had held themselves up as the standard round which men must rally, their names would have been drowned in a sea of derision and contempt." Jesus declares that He has power to give forgiveness, rest, peace, joy, eternal life, to whomsoever He will: more than this, He demands as His right the first love of all men, and their loyalty even unto death. What other man could put forth such claims with any hope of their being accepted?—and the fact remains, that multitudes which no man can number have gladly and joyfully submitted to His authority.

Secondly, He is not only innocent in the eyes of men, but also in His own eyes. The challenge, "Which of you convinceth me of sin?" has never been taken up. Never once does He plead for forgiveness, or own that He has made even a trifling mistake. With all other men, the nearer they climb to God the more they feel their own sinfulness. This Man declares Himself to be meek and lowly, yet there is no shadow of self-reproach or self-accusation. Dare any man accuse Him of conceit?

Thirdly, this young Carpenter claims the right and the power to judge all men. Who but God could weigh accurately the motives and actions of countless millions of souls, balancing hereditary influences and the power of training and circumstances, without danger of making one mistake in the final decision?

Fourthly, He never once places Himself on a level with other men in regard to His relation with God. The disciples are told to say "our Father," but the Master always says "My Father," or "your Father," and openly proclaimed Himself to be the Son of God. Another title which marks this Man out as the representative of humanity, one that He applies to Himself more than fifty times in the Gospels, is "The Son of Man." As Bowen says: "Here again He will

not join Himself with His disciples, will not stand foot to foot with them."

One who studies the wonderful picture of Christ, as given in the Gospels, can hardly fail to exclaim with Pilate, "Behold the Man!" What other man in all history can compare with Him for a moment? But we must do more than behold; our business is to copy the perfect Example set us, and then He will reveal Himself ever more and more plainly, for—

"He cometh still,
Where any seek to know and do his will:
Where any earth-born child, 'mid shadows dim,
Yearneth for closer intercourse with Him,
And where one contrite spirit heaves its sigh,
There, as of old, the Saviour draweth nigh.
The kingdom of thine heart to Him extend,
And thou shall have an advent without end."
HOPE.

The Children's Corner.



Kiss and be Friends.

Hal and Mabel had a tiff
One bright Saturday.
They were cross as cross could be.
He was dumb and so was she,
Kept it up till after tea—
Both refused to play.
Hal was tapping on the glass,
Longing to be friends;
Wishing that he could decide
To put down and conquer pride—
Thinking, "If I only tried,
I could make amends."

Round the corner Mabel crept,
Stooped beneath the sill.
Then upon her tiptoes stood,
Said, "Oh, Harry, let's be good!
I would kiss you if I could,
Are you angry still?"
Like a flash his lips were pressed
To the window pane.
Such a good chance for a kiss
Mabel surely will not miss.
"Making up" is full of bliss,
Sunshine after rain.

COUSIN DOROTHY.

Found in the Snow.

An old clergyman was once riding to his home in Marienburg, near the Gulf of Riga (if you want to know where that is, look it up in your atlas). Suddenly the horse stopped and refused to step over some object in the path. The rider got down and found that a poor little baby, about a year old, was nearly buried in the snow. The good pastor took the child home, and she lived happily with him and his housekeeper until she was about thirteen. Then Catherine, as she was called, was sent away by the only father she had ever known, to visit his sister. In a few days she heard that the Russians were bombarding Marienburg, and at once said she must go back to her dear father. The messenger who had brought the news said by this time all the

people in the town must be dead or taken prisoner.

"Then I will die with them, or be a prisoner," said Catherine, as she galloped off. Just outside Marienburg she was challenged by a young officer. He was kind in his manner, but commanded the Russian soldiers to take her before the General, who informed the poor girl that she was a prisoner, and would be his servant. Catherine begged to be allowed to go to the battlefield that she might find her father's body and have it buried, promising that afterwards she would return and give herself up.

"How do I know that you will not escape if I grant your request?" said the General, glancing at the young officer who had followed her into the tent.

"You have my word," she answered proudly, and the General allowed her to go. She searched in the darkness among the wounded and dead, but without finding her father's body. Then the young officer appeared, carrying a lantern, and helped in the search. At last Catherine got very discouraged, and sat down, crying bitterly.

"Take my purse, and run away," said the stranger, "now you have a good chance to escape."

"Sir, I shall keep my word," she answered, and getting up, began to search again. At last the wounded pastor was found, and Catherine was allowed to nurse him, promising to return as a servant to the General when her father recovered.

Now, if this had been a fairy tale, instead of a true story, you would expect to hear that the kind young officer was a prince in disguise, and that he married the brave maiden, and they lived happily ever after. Well, you wouldn't be very far wrong, for he turned out to be the Czar or Emperor of Russia. He was so charmed with Catherine's courage, truthfulness and grateful affection for her adopted father, that he asked her to marry him, and she became the Empress of Russia.

Perhaps you may never have the chance to distinguish yourself before the eyes of the world, but if you do the best you can, you may really be as great as Catherine—as brave, truthful and kind.

"A Mother Hubbard cloak of blue,
And eyes that rivaled it in hue;
A little 'poke,' and tied within
Two rosy cheeks and dimpled chin;

"Long golden curls that caught the light,
A little childish smile so bright
That passers turned, and smiled to see
The little lass that walked with me.

"Through the long sermon, grave and still,
My little neighbor used her will
To keep the tiny hands from playing,
To keep the childish thoughts from straying.

"At last, towards home our steps were bound,
With the good lessons we have found,
Again the passers smiled to see
The little lass who walked with me.

"And Mame's tongue was now untied;
She to my question thus replied,
'What was the text the Rector read?'
'She do things that she can,' she said."

COUSIN DOROTHY.

Our Own.

If I had known in the morning
How wearily all the day,
The words unkind
Would trouble my mind
I said when you went away,
I had been more careful, darling,
Nor given you needless pain;
But we vex "our own"
With look and tone
We might never take back again.

For though in the quiet evening
You may give me the kiss of peace,
Yet it might be
That never for me
The pain of the heart should cease
How many go forth in the morning
That never come home at night,
And hearts have broken,
For harsh words spoken,
That sorrow can ne'er set right.

We have careful thoughts for the stranger,
And smiles for the sometime guest,
But oft for "our own"
The bitter tone,
Though we love "our own" the best,
Ah! lips with the curve impatient,
Ah! brow with that look of scorn,
'Twere a cruel fate,
Were the night too late
To undo the work of morn.
—Margaret E. Sangster.

Domestic Economy.

ALL ABOUT LAMPS.

A housewife who has to use lamps a great deal, desires to know what will keep the wicks from smoking. If the wick is soaked in vinegar before it is put in the lamp, and thoroughly dried, it will not smoke. The bowl of the lamp should be kept full of oil; but when the lamp is not in use, the wick should be turned down low, to keep the oil from oozing out upon the burner.

The common kerosene lamp which is used in almost every household will give a bright, clear light, and it will be a source of comfort to the family if properly kept. Never use inferior burners. They are cheaper at first, but they soon get out of fix, so the wicks cannot be turned up or down, and do not give a good light. A clean lamp gives no disagreeable odor when burning.

Lamp chimneys are not liable to break upon exposure to changes of temperature if they are put in a pan of cold water and allowed to heat gradually until the water is boiling hot. When you wish to clean the flues, wash them in suds made by dissolving pearl ash in hot water, rinse in clean, warm water, and wipe dry with a towel free from lint. Polish with old newspaper. See that the flues all fit closely. Lamps should always be filled by daylight; and always put in a new wick before the old one is burned out.

FURNISHING SMALL ROOMS.

In furnishing a small room two necessary points must be considered: First, that space is gained by making things as flat as possible against the wall; and, second, that stiffness is prevented then by introducing plants and breaking the lines by pulling out a table a little or turning a chair.

A low seat sixteen inches in height, running around a corner and along one side of the room to some break of door or window, saves space and furniture, and adds a charming effect. It should be upholstered, and have only an occasionally rather small and carefully selected pillow. Low book-shelves, too, built against the wall, furnish without furniture, but care must be taken that they are not extended in too continuous a straight line. A carpet of a solid color greatly increases the effect of space.

HOW TO DRINK MILK.

Sip milk slowly. Take four minutes at least to finish a tumblerful, and take only a good teaspoonful at one sip. This is the ideal way in which to drink milk. When milk finds its way into the stomach, it is instantly curdled. If you drink a large quantity at once it is curdled into one big mass, only on the outside of which the juices of the stomach can work.

If you drink it in little sips, each sip is curdled up by itself, and the whole glassful finally finds itself in a loose lump, made up of little lumps, through, around and among which the stomach's juices may percolate and dissolve the whole speedily and simultaneously. Many people who like milk and know its value as a strength-giver, think they cannot use it because it gives them indigestion. Most of them could use it freely if they would drink it in the way described.

TO BRIGHTEN A CARPET.

Wiping a carpet with a cloth wrung out in warm water and ammonia in which a tablespoonful of kerosene has been mixed, cleans and brightens the colors wonderfully.

ORDERING SEEDS.

Of course you have begun to think about ordering seeds. Many of you, no doubt, have already made out your lists. I hope you have not neglected to include sweet peas. Of all our annuals these are my favorites. They are so sweet, so beautiful, so lovable! They make me think of butterflies when I see them hovering over the vines, nodding, dancing in every breeze, so bright and cheerful that you feel like smiling at them as you would on a group of happy children. Have so many of them that you can cut from them every day for yourself and for your friends. If you want to grow them well, you must sow them very early—in April—and quite deep. It is a good plan to dig a little trench for the seed, five or six inches deep, and sow them in it, covering only an inch or two at first. As the young plants start up, cover more and more, until you have the earth levelled about them. In this way you get the roots down in the soil where they will not be likely to suffer if dry weather comes your way. The secret of success with sweet peas is early and deep planting.

LEMON VERBENA.

Be sure to put down this plant in your list this spring. Small ones in thumb pots grow very rapidly through the summer, and one leaf is so fragrant it will perfume the handkerchief if it is put in the pocket. In the fall, take up carefully, put in a large pot or box, and place in the cellar. Cut the top off, dry the leaves and make several bags, place the dry leaves in, and put among the sheets and pillow cases or in drawers. The perfume will last for months.

FLOWERS FOR SPRING.

All lovers of flowers are now beginning to study what it is best to plant and sow the coming spring; but do all understand that many flowers that were considered perennials and bulbs can be grown from seed and will bloom the first season? Last season instead of buying dahlia bulbs, which are quite expensive, I purchased two

to do, but although they had been on dry ground but the moment before, they found the tide rising higher and higher. Boisterous laughter echoed around, but the guide had vanished. They shouted and he came back, revealed to them by a bright flash of light. It was the devil himself, jeering and pointing to the sea, into which they had ridden. Morning dawned, but the parson and clerk were never found again. Their horses were caught straying on the beach, and at Hole Head there have stood ever since, daily washed by the tide, the two irregular-shaped rocks bearing their names." To which story there is a moral. The outline of the parson rock remains much as I remember it, but there seems a comical twist about the neck of the unfortunate old clerk, who is standing much farther out at sea, which seems to threaten his losing his head altogether. From the Dawlish side the outline is so changed that one would imagine that the clerk had disappeared bodily, and that it was the parson's effigy only which remained, the confusion in one's mind being accounted for by a side view of still another prominent rock, chipped off as



HOLE HEAD, AND "PARSON AND CLERK."

from the cliff, known to fame as "The old maid." But to what vagary or misfortune the old lady owed the honor of a natural monument, deponent sayeth not. Probably she was the giddy young parson's maiden aunt, who, wading in to rescue him, was petrified with fright, and ended by sharing his melancholy fate. I know no more delightful walk than that along the sea-wall as far as one can go upon the Teignmouth side to the big cliff, Hole Head, the scene of the tragic story I have tried to tell you. Just before the entrance to the tunnel, you come to some steep stone steps, rather slippery, but protected by iron railings. These lead you down to an archway under the railway, where by a somewhat narrow ledge you pass to the foot of a most charming little byway called "Smugglers' Lane," once the scene, so it is said, of wild escapades and bloody encounters between the coast-guard and the defrauders of the revenue, the coast lending itself to the adaptation of its caves as hiding places, and the lane to the conveyance of the smuggled goods to receivers inland. If I am fortunate enough to have space permitted for the insertion of my little picture of Smugglers' Lane, you will see that much of its wilder beauty is gone, for it is, on either side, the limit of the grounds of private residents who, according to their several tastes, plant laurels, lauresthus, or other thickly-growing shrubs to ensure their privacy, and most jealously do they guard it by lock and latch-key whereby to let themselves get outside, but never to let any inquisitive tourist get inside, so that it is left to one's imagination to picture how romantic and beautiful must be their surroundings. Most of the residences must have fine views of the sea, and possibly some may have, by steps in the rocks or by other ingenious contrivances, means of access to the shore. A rustic bridge, such as you may see in the picture, across one elevation to another, connecting one property or that of two neighbors situated on either side of one of Devonshire's pretty green roads, is by no means an unusual feature, and a very effective one too, but I must confess to a longing to get through one of those jealously guarded gates, and upon one of those pretty bridges, and see what it is all really like below for myself. But to do that is, I know, a futile wish, for truly an Englishman's house is his castle, and he takes every precaution to make sure that it shall be so. Before I leave Smugglers' Lane and say good-bye to you for the present, I should mention that the section of it shown in the illustration is that of a part which is considerably more level than the rest. You have climbed up to that level as to a temporary resting place. You have passed the running brook of clear water by its side, and you have seen the leaves of the fern and the bracken and the tangle of ivy and other wild plants through a fence which prevented your filling your hands with them, and now you have to make up your mind for another scramble forwards, until you get to the Dawlish Road, by which you can either return to Teignmouth, or if you are so inclined, go on to Dawlish and return by train. But whether you elect to do the one or the other, you are pretty sure to take a good long rest upon one of the broad iron benches you will find considerably placed in this as in many other places around the neighborhood, for the comfort and convenience of pedestrians. H. A. B.

Something about Devonshire.

IV.

Teignmouth folks are naturally proud of their long stretch of sandy beach, which extends from the harbor-mouth to Hole Head, the big headland of red sandstone through which the train passes between Teignmouth and Dawlish. This is a distance of over two miles, and can only be traversed on foot at low tide, although at very exceptionally low tides in summer the adventurous may go still further, and scramble over the rocks at its base, the principal of which are known as "The Parson and Clerk," and about which there is of course a legend, and one very much to the discredit of any "cloth," whether clerical or lay. The story goes that a vicar of Dawlish and his clerk had been over to Teignmouth collecting tithes, and were riding home together. The night was wet and wild, and they lost their way. They came to a house hitherto unknown to them, with windows brightly lighted, and from which issued sounds of mirth and gaiety. A window was thrown open, and a cordial invitation to come in was shouted to them. From that moment they seemed bewitched, "for they said words and sang songs unfit for



SMUGGLERS' LANE, WITH LAUREL TREES.

parish priest or layman." The story goes on to say that "with giddy heads and unsteady legs they went to get their horses, declaring they must have a guide, even if it were the devil himself; whereat the same man who had invited them in undertook to put them on their way to Dawlish. He led them on to the top of the road, and then bade them go straight on. This they essayed

"Johnny," said the pretty teacher, "what's a kiss?"

"I can't exactly put it in words," returned the boy, "but if yer really wanter know, I can show yer."

Amy's Birthday Flowers.

BY ELIZABETH M'CRACKEN.

Mrs. Dale's fingers trembled, and her lips trembled too, as she stood before her mirror, tying her bonnet strings and pinning her veil. Amy had usually tied her bonnet and pinned her veil.

It was almost a year since she had one day folded Amy's hands and slipped into them the last flowers that the ever would hold in the world, but she had not yet grown accustomed to doing for herself all the little things those once busy hands had done for her.

During the time that was almost a year she had missed Amy with that loneliness with which a mother does miss the daughter who goes away into the great, strange silence just when she is old enough to be her mother's friend as well as her child. Mrs. Dale missed all those things that had made up Amy's life, and, perhaps most, she missed the little things that Amy had done for her, and that now she did for herself.

Then, too, Amy had been her only daughter. Mrs. Dale's two sons were in college, and her husband was away from home all day. She had many interests, and many duties, too, yet she was very lonely. She was much more lonely without Amy than even her husband or her sons could know.

As she stood before the mirror, tying her bonnet strings and pinning her veil, her heart was even heavier than it usually was. The next day would be Amy's birthday, and instead of preparing gifts and surprises, Mrs. Dale was about to go into the city to buy the most beautiful flowers she could find to lay on the girl's grave. Amy had loved flowers, and the next day would be her first birthday in that other world, that world in which mothers are never left lonely.

Mrs. Dale was thinking all this to herself as she went into the city on the trolley-car. It was September, and it was afternoon. The car went past fields beginning to turn brown, and between lines of trees beginning to show among their green sometimes a red leaf or a leaf of bright gold. The sun made the leaves all the brighter, and it gilded the brown fields, too, and made the trees cast long shadows. Amy had always been so glad that her birthday had fallen on one of the mystic days that come just before September slips into October.

Her mother thought of that, too. She thought of so many things about which Amy had been glad. She was a little less sad and lonely as she remembered some of them. She thought and remembered all the time that she was in the trolley-car, and even after she was in the city, and walking along the crowded street to a florist's shop on one of its corners.

When she reached the florist's shop she stopped, and stood looking at the flowers in the shop windows.

"What shall I get?" she said to herself. "Roses, white roses; Amy always loved them. Or violets—it is rather early for violets, though. Or lilies—I might get lilies." She decided upon the roses.

"(They are sweeter and simpler for a young girl like Amy," she said to herself, gently.

She turned away from the windows, and was just about to open the door of the florist's shop when she

saw coming up the street toward her one of Amy's girl friends. She paused and waited. She had always been very friendly with the girls, and now she felt even a greater interest in them. She had especially liked Eleanor Greer.

The girl was coming so rapidly up the street that she would have passed the florist's shop without seeing Mrs. Dale if that lady had not spoken to her.

"My dear Eleanor, you certainly are in a hurry," she said.

Eleanor came to a sudden stop. "O Mrs. Dale, dear Mrs. Dale, I am so glad to see you!" She took Mrs. Dale's hand and held it for a moment. Eleanor had loved Amy, and she, too, had been lonely without her. She, too, remembered that the next day would have been Amy's birthday. She said not a word, but she held Mrs. Dale's hand very closely, and looked into her eyes; and Amy's mother understood the unspoken sympathy.

"How are you, my dear child?" was all that she said, for she did not yet speak very often of the daughter who had died.

"I am very well," Eleanor said, "and very busy. I read the history of music and teach children music, and I study music and practise music—just as usual, dear Mrs. Dale." She smiled, just a little wistfully. Mrs. Dale thought.

Prompted by the thought, she asked gently, "And are you happy, Eleanor, dear?"

Eleanor hesitated for an instant, and then she smiled again and said, "Yes—usually I am. Just at present I am sighing for the luxuries of life."

Mrs. Dale was relieved. She knew that Eleanor was too sensible to sigh very long for anything. "What do you mean by the luxuries of life, dear?" she asked.

"Now really, Mrs. Dale!" Eleanor protested brightly; then, with more color in her face, she added, "Just now they are the eight concerts that the Beethoven Society is going to give."

Mrs. Dale smiled in sympathy. "They are certainly the greatest of luxuries to music lovers," she agreed.

"And to music teachers who must spend their money for—other things," Eleanor added, with a laugh. "Please don't think I'm really unhappy because I can't afford to go, Mrs. Dale. I'm not; I'm just croaking a little. It's such a help to any one to hear good music—especially to a music teacher—and such a joy! But I'm not unhappy about it; I'm glad I can do other things. I don't feel a bit like croaking any more since I've seen you!"

"You dear child!" exclaimed Mrs. Dale, warmly. She knew that most of the things that Eleanor did were done for other persons, and done willingly and bravely. "You dear child!" she repeated.

Eleanor pressed her hand closely. "I must fly to my next pupil, Mrs. Dale. May I come to see you to-morrow—perhaps late in the afternoon?" she whispered.

The quick tears came into Amy's mother's eyes. "Yes, do!" she said. "Good-bye, my dear!"

Eleanor sped up the street to her next pupil, and Mrs. Dale turned to enter the florist's shop and buy the white roses.

"Eleanor is a dear, good child," she thought, "so brave and unselfish! It is a pity she can't go to those concerts. They would give her such help, and such happiness, too! I wish I could give her a ticket to them. Amy would be so pleased; she loved Eleanor. If to-morrow were not Amy's birthday, and I were not going to get the flowers for her grave, I should be able to do that for Eleanor. She would let me, because I am Amy's mother. I wonder—"

She stood quite still. A pleasant new possibility came into her mind. She turned away from the florist's shop. In less than an hour she was going home, past the yellowing fields and sunset-lighted trees. She had no flowers with her, but the look in her eyes was less sad and less lonely for Amy.

In the last few moments of daylight she wrote a little note to Eleanor. The girl wept tears, half-happy, half-sad, as she read:

My Dear Child,—To-morrow, as you know, is Amy's birthday. If Amy were here I should give her something to celebrate it. Amy is not here, but you are, dear; and you are a girl like Amy, and her friend. Will you not take the gift for her, and go and listen to the glorious music that you so love and can so well make helpful to yourself and others? Come to see me soon, and believe me, Your warm friend,
Amy Spencer Dale.

Slipped into the note, Eleanor found a ticket to the Beethoven Society concerts. Amy's mother had sent it very happily, but after it had gone she sat alone in the gathering twilight, wishing that she had just one flower to take on the next day to Amy's grave. "Amy would have liked me to do that," she thought, "but still—on her first birthday—"

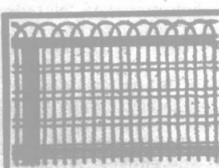
She did not finish the sentence, for just at that moment little Marjorie Williams, who lived next door, came running in.

"O Mrs. Dale," she cried, "I've been to the woods with father, and I've brought you some flowers!" She ran up to Mrs. Dale, and dropped into her arms a great mass of glowing goldenrod and blue autumn daisies. Then she kissed her and danced away home.

Mrs. Dale gathered the goldenrod and daisies in her arms, and pressed her cheek softly against them. The next morning she took them and laid them on Amy's grave. Strangely, her heart felt lighter than it had felt since Amy died.

She did not know why, but when Eleanor came, later in the day, and kissed her again and again, and thanked her with wet eyes for the gift, she began to know. Never after did she cover Amy's grave with costly, quick-fading flowers.

Instead, at Christmas and at Easter and on Amy's birthday, she did some lovely kindness for some other girl for Amy's sake. Sometimes it was small, sometimes it was large; but always it was something that made the girl happier and better, and consequently more valuable to the world.



Page Metal Ornamental Fence

Handsome, durable and low-priced. Specially suitable for front and division fences in town lots, cemeteries, orchards, etc. Details for 20 CENTS PER RUNNING FOOT. Just about the cheapest fence you can put up. Write for full particulars. Use Page Fence and Poultry Netting.

The Page Wire Fence Co., Limited, Walkerville, Ontario. Montreal, P.Q., and St. John, N.B.

ROSS & ROSS, General Agents, WINNIPEG, MAN.



CLYDESDALES

Two stallions (imp.) almost 3 years old, carrying the blood of Darnley, Lord Erskine and Prince of Wales. Also 1 (imp.) mare, 5 yrs. old, a Scotch prizewinner of like breeding. JOHN MORROW, Darlingford.

ADVERTISE IN THE FARMER'S ADVOCATE.

The Veterinary Association of Manitoba.

Under the authority of Secs. 18, 19, 20, 22 and 26 of the Veterinary Association Act, 1890 (S3 Vic, Chap. 60), the following persons only are entitled to practice as Veterinary Surgeons in the Province of Manitoba, or to collect fees for the service rendered as such:—

- Alton, A. L. M'Gregor.
- Baker, G. F. Russell.
- Barr, G. H. Cartwright.
- Braund, F. J. Wawanesa.
- Brocken, G. E. Olan William.
- Brandon, Brandon.
- Orulokshank, J. G. Deloraine.
- Douglas, A. R. Dauphin.
- Dunbar, W. A. Winnipeg.
- Elliott, H. James. Brandon.
- Fisher, J. F. Brandon.
- Frame, R. Trichorne.
- Golley, J. Trichorne.
- Graham, N. Dauphin.
- Green, E. Birtle.
- Harrison, W. Cypress.
- Hatton, J. Alexander.
- Henderson, W. S. Carberry.
- Hilliard, W. A. Minnedosa.
- Hilton, G. Portage la Prairie.
- Hinman, W. J. Winnipeg.
- Hodgins, J. Minnedosa.
- Hurt, W. N. J. Belmont.
- Irvine, J. J. Stanwail.
- Lake, W. H. Miami.
- Lawson, R. Shoal Lake.
- Little, C. Winnipeg.
- Little, M. Pilot Mound.
- Little, W. Boissevain.
- Livingston, A. M. Melita.
- McFadden, D. H. Emerson.
- McGillivray, J. Manitou.
- McGillivray, C. D. Binacuth.
- McKay, D. H. Brandon.
- McLonghry, R. A. Stoomin.
- McMillan, A. Oak Lake.
- Martin, W. E. Winnipeg.
- Monteith, R. A. Killarney.
- Marshall, B. G. Griswold.
- Murray, G. P. Winnipeg.
- Reid, D. D. Hartney.
- Robinson, P. E. Emerson.
- Rombough, M. B. Morden.
- Rowcroft, G. V. Birtle.
- Scurfield, R. D. Crystal City.
- Shoule, W. A. Gladstone.
- Smith, W. H. Carman.
- Smith, H. D. Winnipeg.
- Snider, J. H. Emerson.
- Stevenson, C. A. Gilbert Plains.
- Stevenson, J. A. Carman.
- Swenerton, W. Carberry.
- Taylor, W. R. Portage la Prairie.
- Thompson, S. J. Winnipeg.
- Torrance, F. Winnipeg.
- Waldon, T. Killarney.
- Walker, J. St. C. Birtle.
- Weich, J. Roland.
- Westall, E. P. Winnipeg.
- Wisley, H. P. Glenboro.
- Whitmer, M. A. Hamiota.
- Williamson, A. E. Winnipeg.
- Young, J. M. Rapid City.
- Young, M. Manitou.

The practice of the veterinary profession in Manitoba by any other person is in direct contravention of the statute, and renders him liable for prosecution.

F. TORRANCE, REGISTRAR.

Buying a Cream Separator!



TO MAKE NO MISTAKE in this is of the utmost importance. You don't buy one very often, and it is not only a question of first cost, but of daily profit or loss, daily operation and daily wear and tear.

THE RIGHT CHOICE IS REALLY SIMPLE. In reality the De Laval machines are in a class by themselves—head and shoulders above all imitating machines. Protecting patents make and keep them so, together with far greater experience and superior facilities in every way for cream separator manufacture.

Every big and experienced user of separators knows this and uses De Laval machines exclusively, both in factory and farm sizes.

BUT YOU MAY BE WITHOUT SEPARATOR KNOWLEDGE OR EXPERIENCE. Therefore, take steps to see and try a De Laval machine for yourself. It will cost you nothing to do so. That is part of the local agent's business. If you don't know him, write for his name and address.

Try imitating machines, too, if you will and can get them, but don't put your name to an order of any kind until you know the facts about De Laval machines and have tried one. That means your buying one.

The De Laval Separator Co.

Western Can. Offices, 248 McDermot Ave., WINNIPEG. Stores and Shops:

- MONTREAL.
- TORONTO.
- NEW YORK.
- CHICAGO.
- POUGHKEEPSIE.
- PHILADELPHIA.
- SAN FRANCISCO.

In answering any advertisement, please send, kindly, mention THE FARMER'S ADVOCATE.

WISE FARMERS PROTECT AGAINST HAIL LOSSES.

Stronger and Better Than Ever.

The only Company in Canada conducting Hail Insurance on established insurance principles, with absolute security for payment of losses.

The WESTERN CANADIAN HAIL INSURANCE CO. Authorized Capital, \$500,000.

A FEW REASONS WHY YOU SHOULD INSURE IN OUR COMPANY.

1. Our policy insures you for a stated amount per acre, and you will know just what your insurance is to cost you.
2. The rate of premium you pay is proportional to the risk, so that you pay for your own protection only.
3. Losses, if any, fairly adjusted and promptly paid. We have always paid our losses in full and within 30 days from date of receiving notice of loss.
4. You have the security of a large subscribed capital and a Government deposit.
5. The present management are adopting new features that will be especially advantageous to the insured.

Reliable, energetic agents wanted in unrepresented districts. Address,

THE WESTERN CANADIAN HAIL INSURANCE CO. WAWANESA, MAN.

CLYDESDALES FOR SALE

New importation just arrived.

25 STALLIONS

OF

Choice Breeding, Excellent Quality and Extra Large Size.

Stock has been personally selected. Inspection is solicited and prices will be found right.

O. SORBY, GUELPH, ONT.

GOSSIP.

Spencer Bros., of Medicine Hat, recently gave Mr. Taylor, of Thorndale, Ont., an order for thirty two-year-old bulls for their ranch. The stock were secured in the counties of Western Ontario, and are now on their way to the range. There is one whiteface in the bunch, but all the rest are Shorthorns.

GOSSIP. MURTON FARM.

About seven miles south of Oak Lake station is situated Murton Farm, the home of Geo. Gordon, breeder of Shorthorn cattle and Berkshire swine. The present stock bull, Admiral, bred by J. & W. B. Watt, Salem, Ont., and sired by Royal Sailor (imp.), dam Kathleen, by Musketeer, is a long, deep bull, with a broad, thickly-fleshed back, good hind quarters, a fine head, strong neck, with quality throughout. The females are a large, useful lot, combining constitution and good breeding qualities. Floss of Oak Lake, sire Lancer (imp.), dam Floss of Ralplton, is extra strong in heart-girth, and a first-class breeder. Second Duchess of Oak Lake, sire Lancer (imp.), dam Duchess of Beresford, by Sunrise, is a deep, straight cow, with a very strong middle. Rose of Cedarhurst, by

Jubilee Chief, dam Rose of Ralplton, by Lancer (imp.), is a straight, deep cow, with a good breeding record. Oak Lake Blossom, sire Chief of Roseland, dam Floss of Oak Lake, by Lancer (imp.), is an extra good, thick cow, with great constitution and fine quality. She won first at Oak Lake last fall, and has always taken highest honors wherever shown. At foot, she has an extra fine bull calf. Lou of Manitou, sire Chief of Roseland, dam Rosebud of Ralplton, by Lancer (imp.), is a well-made cow, with twin calves at foot. Blanche of Oak Lake, sire Prince Charlie, dam Floss of Oak Lake, by Lancer (imp.), is a well-developed two-year-old, extra full back of shoulders, low-set, thickly-made and well-quartered. She has won several firsts. Another winner of firsts is the yearling, Rosebud of Oak Lake, sire Admiral, dam Rose of Cedarhurst, by

Jubilee Chief. She is a strong-backed, good, deep heifer. The calves are a very choice lot, thick, low-set and very thrifty looking. One, a roan bull, by Clan McKay (imp.), and another, a red bull, by Admiral, dam Blossom, along with a red heifer by Admiral and out of Rose of Cedarhurst, deserve to be specially mentioned as extra true to type. Recently, Mr. Gordon sold to S. R. English, of Edmonton, the three following, which have not been mentioned: Tom of Oak Lake, sire Admiral, dam Floss of Oak Lake, by Lancer (imp.). This yearling is a low-set, large, growthy bull, with good head and neck, straight lines and lots of quality. Silver Duchess, a two-year-old, sire Prince Charlie, dam 2nd Duchess of Oak Lake, by Lancer (imp.). This roan heifer is a splendid deep animal, and a frequent prizewinner. Another is Lou 2nd of Oak Lake, a red yearling got by Admiral, and out of Lou of Manitou, by Chief of Roseland. She is a strong-backed, deep, thick heifer, with straight lines—a winner of first at Oak Lake Fair last fall.

In Berkshires, Mr. Gordon has made a nice start. The herd at present is not large, but the quality of the individuals is right.

Recently, our representative called on Messrs. Jas. Tolton & Son, 31 miles from Walkerton, and there saw their recent purchase, the promising young imported roan Shorthorn bull, Prince Homer, bought from Mr. John Innes, Markham, and bred by Sy Campbell, Kinellar, Scotland; sire Knight of Strathbogle 2nd =79173=. They have also bought Lady Mary (imp.), roan heifer, with very sweet head and shape, bred by Alex. Brown, Wattle Mills, Scotland; sire Bounding Willow =79488=. They have several imported cows of good Scotch breeding, and others of such noted families as Miss Ramada, Favorite, Strawberry, etc.; also, three red yearling bulls, in first-rate condition, for sale, besides numerous calves from the grand bull, Heir of Hope =82687=, from imported Kinella. Besides the breeding of Shorthorns, a nice flock of Oxford Down sheep is kept, of thirty breeding ewes and a well-grown lot of fifteen yearling ewes and twelve yearling rams, by imported ram, Reading's 50th 1899—a thick, well-wooled ram, well marked, strong bone, and a pure sire. Of these, the rams, yearling ewes and some two-year-old ewes are for sale.

TRADE NOTE.

A GOOD SEPARATOR NAME.—One of the essentials in up-to-date dairying is the centrifugal cream separator. Its usefulness has been demonstrated in actual practice on thousands of farms, whether the trade was selling cream, out-and-out, sending it to a butter factory, or making butter on the farm. It gets out of the milk more cream, and in better condition, than is possible in any other way, and leaves the skim milk sweet and fresh for feeding. In the full-page announcement of the easy-running Empire separators appearing on the back cover of our Immigration Number, March 20th issue, these points were claimed as its predominating features: durability, utility, simplicity and economy in skimming. After a good long trial of a No. 2 size, Mr. S. W. Anger, of Coulee, Assa., writes that it is a fine machine, which he never regretted purchasing. He adds: "It more than paid for itself over what we used to get from deep setting." Mr. Chas. A. Gledy, of Rutherford, reports that the Empire separator proved all that was claimed for giving good satisfaction—easy to run and easy to clean. For catalogues and other information desired, write Mr. H. P. Hansen, manager, The Manitoba Cream Separator Co., 187 Lombard St., Winnipeg. The cream season is at hand. Do not delay getting information about the Empire.

In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE.

GOSSIP.

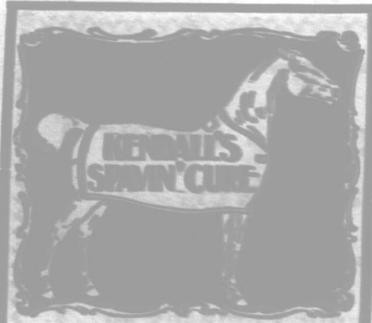
Geo. E. Brown, Brandon, writes as follows: "I am well pleased thus far with my venture in coming to Manitoba with a branch of my business. In fact, I am strongly inclined to make Brandon my headquarters and my Aurora, Ill., stable the branch. In going about this country and meeting the most intelligent and practical horsemen, I find the tide of sentiment rapidly changing in favor of Shire horses. Since coming here last autumn, I have made extensive enquiries without finding one instance of a good typical Shire failing of giving the best of satisfaction. Their superior merits, individually and as breeders, are becoming generally recognised. I find that the high cost of first-class Shires in England and the low price at which unsound and inferior stallions can be bought has caused the importation of the latter in large numbers, working an injury to the breed in Canada, as it has in the United States, creating a prejudice against the breed, which is now being overcome by the introduction of a better class. If a law could be enacted prohibiting the use of unsound stallions, it would in a few years result in great benefit. I demand a vet.'s certificate with every horse I import, and I find it a great protection, there being so many concealed blemishes that none but experts or professionals would detect. My first consignment being nearly closed out, I will have a new lot in ready for spring trade. I notice some communications from men urging government ownership of stallions. I think more good can be accomplished by a license law, requiring veterinary inspection, and by lectures given at various points throughout the Province by experts, on the line of those recently given at Winnipeg and Brandon.

At Westbourne, seventeen miles north-west of Portage la Prairie, on the Minnedosa and Yorkton section of the C. P. R., lies the home of A. & D. Stewart, Shorthorn breeders. Their present stock bull is Gold Dust, by Knuckle Duster (imp.); dam Duchess Jane 16th, by Caithness; grandam Duchess Jane 12th, by Royal Barrington. Gold Dust is a strong, thick bull, with good back and loin and very straight lines. Those under a year, ten in number, are a growthy lot, all sired by Gold Dust. Lady Topman, sire Topman's Pride, dam Morven A., by Knight of Westbourne, is an extra growthy, well-made yearling heifer. Binnie, got by Village Hero, dam Jessie of Wa-Wa Dell, by Knight of Westbourne, is an extra strongly-made three-year-old; bred by A. W. Smith, Maple Lodge, Ont. Junitta, sire Red Gauntlet, dam Victoria L., by Knight of Westbourne, and Carlome, one of A. W. Smith's breeding, sire Adonis, dam Rose of Wa-Wa Dell 2nd, by Don Pedro, are a couple of good useful cows. Stewart Bros. also make a practice of feeding steers, and this winter had a bunch of 20 big fellows of good export type, which they fed three gallons per day of almost pure barley chop and a little bran. For roughage, all the wild hay of good quality that the steers could eat was fed. The steers were in fine condition when a representative of this paper called some little time ago, and indications promised good returns for the labor and feed.

The following is a list of some recent sales: To Ed. Hyndman, of Gladstone, Man., two yearling heifers, Hester Roan, dam Burnbank Lassie, and Marjory Fleming, both by Gold Dust. To Donald McCaskill, Gladstone, Haydee, dam Morvan A., sire Sir Colin, by Village Hero.

TRADE NOTE.

SHEEP-SHEARING MACHINES.—We desire to call attention to the advertisement of the Chicago Flexible Shaft Co., which appears in another column. This firm has become noted for the manufacture of hand and power sheep-shearing machines. At the International Show, held in Chicago, December last, they had a very creditable exhibit which attracted a good deal of attention. Sheep were shorn every 15 or 20 minutes, and the simplicity of their machines was remarkable. Those having occasion to use a hand or power shearing machine should communicate with this firm before purchasing elsewhere.



USED FOURTEEN YEARS WITH GOOD RESULTS.

THE HISS, New York, Sept. 2, 1912.

DR. R. J. KENDALL CO.

Gentlemen:—I have used your Sperm Cure on my horses for the past fourteen years and it has always given me good results in every particular. I also have one of your books that I have found very useful. If you have any later edition of the "Treatise on the Horse and his Diseases," will you kindly send me one.

Respectfully yours, R. P. HISS.

It is an absolutely reliable remedy for Spruing, Spavin, Curbs, Ringbones, etc. It restores the blood and gives a new tone. Price 50c per oz. As a safeguard for family use it comes in a 4-oz. tin. For a list of dealers for KENDALL'S SPERM CURE, also "A Treatise on the Horse," the best book on the subject.

DR. R. J. KENDALL CO., CHESHIRE HILLS, W.

STAMMERERS

THE ABBOTT METHOD, WINONA, CANADA.

For the treatment of all forms of SPEECH DEFECTS. Dr. W. J. Abbott, Speech Specialist. We treat the cause, not simply the habit, and therefore produce natural speech. Write for particulars.



TREES

FRUIT. ORNAMENTAL.

Actually first hand. Why pay intermediate profits when you can buy direct from the growers?

Send at once for Catalogue and Price List to

WINONA NURSERY CO., WINONA, ONT.

Government Tests

have proven that 80 per cent of all the unsprayed fruits going to waste might be marketed at top prices if sprayed with a

SPRAMOTOR

Nine-tenths of the labor can be saved where much whitewashing or painting is necessary. We want you to know why Spramotors will save your fruit while ordinary sprayers fail. The buying of a Sprayer is the matter of a moment, yet a mistake is a costly experience. It means the loss of your labor and chemical, and affects your profits. We want you to know why the Spramotor was awarded First Place in the Spraying Contest, and the Gold Medal at the Pan American Exposition. We want you to know why Sprayers should be made of good brass. We want you to know why Spramotors have more points of excellence than all others combined. We want to supply you with the facts, and help you to avoid mistakes. Will you let us try? Send for our Treatise, "A Gold Mine on Your Farm," on the diseases of fruit trees and their remedies. It's Free.

SPRAMOTOR CO., BUFFALO, N. Y. and LONDON, CAN.

CONSUMPTION CAN BE CURED.

Consumption uninterrupted means speedy and certain death. The generous offer that is being made by Dr. Slocum, the great lung specialist. Sunshine and hope for stricken families.

Confident of the value of his discovery, he will send free four complete bottles upon application, to any person suffering from throat, chest, lung and pulmonary afflictions.

TREATMENT FREE.

To enable despairing sufferers everywhere to obtain speedy help before too late, Dr. Slocum offers

FULL FREE TREATMENT

CONSISTING OF FOUR LARGE SAMPLES to every reader of this paper.

You are invited to test what this system will do for you, if you are sick, by writing for a

FREE TRIAL TREATMENT

and the Four Free Preparations will be forwarded you at once, with complete directions for use.

The Slocum System is a positive cure for Consumption, that most insidious disease, and for all Lung Troubles and Disorders, complicated by Loss of Flesh, Coughs, Catarrh, Asthma, Bronchitis and Heart Troubles.

Simply write to the T. A. Slocum Chemical Company, Limited, 177 King Street West, Toronto, giving post office and express address, and the free medicine (the Slocum Cure) will be promptly sent.

Persons in Canada seeing Slocum's free offer in American papers will please send for samples to Toronto. Mention this paper.

Ferry's Seeds

Seeds the Kind that Leads to more yield more sold by all dealers.

1913 Seed Annual postpaid free to all applicants.

F. H. Ferry & Co., Windsor, Ont.



There are very few cleaning operations in which Sunlight Soap cannot be used to advantage. It makes the home bright and clean.

TRADE NOTE.

C. KINNIBURGH & CO., Calgary.

deal extensively in musical instruments, sheet music, etc. This firm is representative in Alberta for Evans Bros.' pianos, also the famed Kora and Newcombe makes. Evans Bros. are a strong company, and are giving a seven-year guarantee with their instruments. Those wishing to purchase should write for catalogue and prices.

IMPORTANT AUCTION SALE OF YORKSHIRES.

Messrs. D. C. Flatt & Son, Millgrove, Ont., request us to announce that on June 25th, at the Hamilton Stock-yards Sale Pavilion, Hamilton, Ont., they will hold an extensive auction sale of imported Yorkshire hogs—boars and sows of various ages—of the most approved type, many of which will be suitable for show-yard material, having been selected from leading herds in Great Britain with a view to the requirements of the trade of this country. Fuller announcements and further particulars may be looked for in future issues of the "Advocate."

LIDLAW'S CONCENTRATED TOBACCO POWDER SHEEP DIP

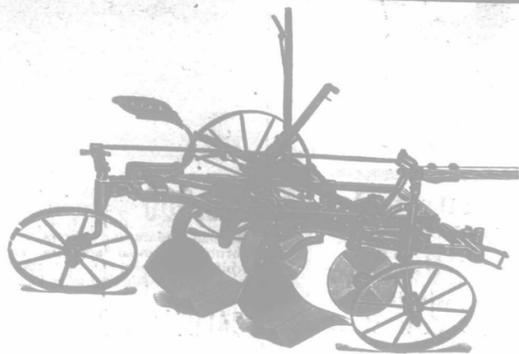
Tobacco (Nicotine) is the best cure for scab and ticks known. In no form is it so effective as in a powder of dark tobacco mixed with sulphur. Why? Because the small particles of tobacco remain in the wool after dipping and prevent a return of scab or ticks. Because the strength does not evaporate from it as from a liquid dip. It will keep without fermenting or losing its strength. The cost is about the same as lime and sulphur. It is all prepared and ready for the bath. No boiling required and no sulphur has to be added. The correct proportion of sulphur is already mixed in it. One 50 lb. bag makes 500 gallons bath scab strength.

Sole Manufacturers, LAIDLAW, MACKILL & CO., Ltd., Richmond, Virginia, U.S.A.

SOLE AGENTS FOR CANADA: ELLIOTT, MARR & CO., London, Canada.

In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE.

THE Columbia Gang Plow



A STRONG PLOW FOR HARD WORK.

The "Columbia" may be equipped with regular Breaker Bottoms, thus adapting it to the stiff Prairie sod. The service given a Gang Plow in the Northwest is very severe, and the great popularity of the "Columbia" is due to the fact that it is made strong throughout. The beams are extra heavy, and the frame and bails very stiff. That the "Columbia" is well fitted for heavy work is well shown by its wonderful success in the Dakotas and Canada. No work in the matter of plowing can be so exacting that the "Columbia" will not fill the requirements.

MANUFACTURED BY

ROCK ISLAND PLOW CO., Rock Island, Illinois.

**JOHN STEVENS, Gen'l Agent,
Winnipeg, Manitoba.**

Melotte Cream Separators

**Show Superiority
In Their Great Lasting Qualities!**

The bowl is suspended on ball bearings with little or no friction; therefore little or no wear.

URNS EASY, SKIMS CLEAN

**MELOTTE CREAM SEPARATOR COMPANY,
LIMITED,
BOX 604. 124 Princess St., Winnipeg**

IMPORTANT DISPERSION SALE OF Imported Scotch Shorthorns

At the Village of

Markham, Ontario,

on the Midland branch
of the G. T. R., 22 miles
from Toronto, and three
miles from Locust Hill
Station, C. P. R., on

Wednesday,

May 13, 1903



The entire herds of Imported
Shorthorns belonging to

GEO. ISAAC, Bomanton,

AND

JOHN ISAAC, Markham,

consisting of

45 HEAD

All young and in prime breeding condition. These cattle were selected from many of the best herds in Scotland, and many of them will make show animals. The females of breeding age have been bred to first-class Scotch bulls. This is such an opportunity to secure imported cattle as will not soon occur again.

CATALOGUES WILL BE MAILED ON APPLICATION TO

JOHN ISAAC, MARKHAM, ONT.

CAPT. T. E. ROBSON, AUCTIONEER, ILBERTON.

In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE.

"Canada's Greatest Seed House."

SEEDS

All the leading merchants from the Atlantic to the Pacific sell Steele, Briggs seeds. Thousands of people in Canada buy them every year and won't have any other, because they have PROVED THEM TO BE THE BEST. We are anxious to mail our catalogue to every SEED BUYER in this GREAT NORTHWEST. If you have not received a copy, write us to-day a post card, we will send you one by return mail. You will find it interesting.

What Varieties do you Recommend for the Northwest?

Is a question we answer many times each day. The following varieties of Vegetable Seeds will give splendid satisfaction under favorable conditions. Full descriptions of each will be found in our Catalogue.

FOR THE GARDEN

<p>PEAS. The Steele, Briggs Best Extra Early (2 feet) white sent-4. This "First of All" pea possesses all the qualities most essential for a first-class variety. 15 lbs., \$1.60; lb., 20c.; pkt., 5c. American Wonder (9 inches). Green wrinkled, of dwarf, compact growth. 15 lbs., \$1.25; lb., 25c.; pkt., 5c. Herolise (2 feet). Medium early green wrinkled pea, immense cropper, finest quality. 15 lbs., \$1.75; lb., 20c.; pkt., 5c.</p>	<p>BEANS—dwarf or bush. Golden Wax. One of the best dwarf beans known. Peck, \$1.60; 5 lbs., 60c.; lb., 15c.; pkt., 5c. Early Long Six Weeks. One of the earliest. Peck, \$1.40; 5 lbs., 50c.; lb., 15c.; pkt., 5c. Broad Windsor. The old favorite sort. Lb., 20c.; pkt., 5c.</p>	<p>CORN. Extra Early Cory. (White Cob.) Undoubtedly the earliest of all, and the very best early sweet corn. Peck, \$1.; lb., 15c.; pkt., 5c. Early Minnesota. Ears of fair size, kernel broad, sweet and tender. Peck, \$1.; lb., 15c.; pkt., 5c. If you want Peas, Beans and Corn by mail, add 5c. per pound for postage.</p>
<p>BEEF. Edmond's Early Blood Turnip. One of the best for table use; color dark red, flesh purplish red, crisp, tender and sweet. An excellent keeper. Lb., 60c.; 1/2 lb., 25c.; oz., 10c.; pkt., 5c.</p>	<p>CABBAGE. Early Winningstadt. One of the best cabbages for general use. Heads regularly conical, solid and of excellent flavor. Lb., \$1.00; 1/2 lb., 45c.; oz., 15c.; pkt., 5c. Autumn King. One of the finest winter cabbages. Lb., \$2.; 1/2 lb., 60c.</p>	<p>CARROT. Guernsey, or Ox-Heart. This variety has given great satisfaction. While not attaining one-half the length of many other varieties, it will compare favorably in bulk of crop, as on good land it will produce carrots four to six inches in diameter. Lb., 75c.; 1/2 lb., 25c.; oz., 10c.; pkt., 5c.</p>
<p>CELERY. White Plume. Excellent variety; tender, crisp and mild. Price: 1/2 lb., 75c.; oz., 25c.; pkt., 5c.</p>	<p>CAULIFLOWER. Earliest Snowball. More extensively grown than any other variety. Oz., \$2.50; 1/2 oz., \$1.40; pkt., 25c.; 1/4 pkt., 15c.</p>	<p>CUCUMBER. Jersey Pickling. One of the best pickling sorts in cultivation. Lb., \$1.75; 1/2 lb., 50c.; oz., 15c.; pkt., 5c. Improved Long Green. Of excellent quality, dark green, firm and crisp. Lb., \$2.; 1/2 lb., 60c.; oz., 20c.; pkt., 5c.</p>
<p>LETTUCE. Nonpareil Cabbage. One of the best in cultivation; color, beautiful light yellowish green. 1/2 lb., 35c.; oz., 15c.; pkt., 5c.</p>	<p>ONION. Yellow Globe Danvers. Early round, very small neck, fine grained, mild flavor, immensely productive and an excellent keeper. Lb., \$1.25; 1/2 lb., 35c.; oz., 15c.; pkt., 5c. Large Red Wethersfield. The staple variety, very productive, large size, deep red color, pleasant flavor and an excellent keeper. Lb., \$1.25; 1/2 lb., 35c.; oz., 15c.; pkt., 5c.</p>	<p>TOMATO. Atlantic Prize. One of the earliest; not only ripens its first fruits, but a large proportion of the crop, earlier than any other sort. 1/2 lb., 75c.; oz., 25c.; pkt., 5c.</p>

FLOWER SEEDS. All lovers of a flower garden will find a complete and interesting list in our Catalogue, which embraces not only all the popular and easy growing varieties, but many novelties of recent production. Don't overlook our Wild Flower Garden day. Price: Oz., 20c.; large packet 5c.

FOR THE FARM.

STEELE, BRIGGS' "ROYAL GIANT" SUGAR BEET. Grows heavy crops. Easily harvested. Price, lb., 30c.; postpaid, 35c.

STEELE, BRIGGS' "IMPROVED SHORT WHITE" CARROT. The surest cropper, the heaviest yielder, the handsomest shaped, easiest harvested, the most uniform sized, the greatest favorite, and the very best field carrot in existence. Price, lb., 50c.; postpaid, 55c.

STEELE, BRIGGS' "PRIZE MAMMOTH" or "GIANT LONG RED" MANGEL. Price, lb., 20c.; postpaid, 25c.

SWEDEN TURNIPS, THE STEELE, BRIGGS CO.'S SELECTED PURPLE TOP. There is no other sort which we have ever grown that yields a more uniform size and handsome crop, or that will produce a greater weight. Price, per lb., 25c.; postpaid, 30c.

AWNLESS BROME GRASS—(Bromus inermis). A Grass for the Stock Raiser. Owing to the rapidly increasing herds of cattle and the lessening natural pasturage in the North-west, the interest in grasses and fodder plants is increasing each year. As a pasture grass, Brome Grass for the Northwest is unequalled. All kinds of flies. Starting early in the spring again, it is fit to pasture two weeks earlier than our native grasses. It is perfectly hardy and withstands dry weather. Price, \$12.00 per 100 lbs., f. o. b. Winnipeg; no charge for sacks.

WESTERN RYE GRASS—(Agropyrum tenerum). One of the best Western hay grasses. Produces an abundance of soft, leafy stems and root leaves, and ripens a large amount of seed that is easily gathered. Gives good results as a pasture grass, especially for horses. Price, \$2.00 per 100 lbs., f. o. b. Winnipeg; no charge for sacks. Good Seed is the first consideration with the wise farmer. The quality of the seed we have to offer of these two magnificent grasses is the best obtainable.

SEED GRAIN, GRASS SEEDS AND CLOVER.—We pay particular attention to this department of our business. If interested write for our Farmers' Special Price List, which includes the following: Wheat, Oats, Barley, Speltz, Spring Rye, Field Peas, Buck-wheat, Flax Seed, Corn—North Dakota White Flint, North Dakota Yellow Flint and Red Cob Ensilage; Clover and Grasses.

FREIGHT RATES. The farmer who buys Seed Grain and Grass Seeds FROM WINNIPEG, for seeding purposes, has only to pay half current mileage tariff rates.

THE STEELE, BRIGGS SEED CO., WINNIPEG, MANITOBA, LIMITED. HEAD OFFICE, TORONTO, ONT.



150,000 Healthy, well-rooted, Manitoba-grown young trees, plants, seedlings, roots, vines and cuttings, Russian poplars, and willows, maples, elms, flowering shrubs, Virginia creeper, rhubarb roots, small fruits of all kinds, and a few apples and crab. Prices away down. Send for price list.

CALDWELL & CO., Virden Nurseries, VIRDEN, MAN.

ELECTRIC BATTERY, 99c.



WORTH \$5.00. A doctor in your home. Always ready, cannot get out of order, never wears out. You turn the crank and generate an electric current, which can be regulated at will. Weak enough for a baby and strong enough to overcome a strong man. Nothing like it for apoplexy, meningitis, paralysis, neuralgia and all other nervous affections, dyspepsia, rheumatism, etc. Last fall we bought a large number of these batteries, and now have only a few dozen left. Not wishing to carry them in stock through the summer, we are clearing them out at 99c. Regular dealers charge from \$2.50 to \$5.00 for these batteries. At 99c. they will all be sold in a few days, and there will be no more at this price after these are gone. Secure one by sending 99c. to-day. **JOHNSTON & CO.,** Box 3322, Toronto.



14K. GOLD WATCH FREE

What is the use of spending \$25.00 or \$50.00 for a Watch when you can get one for nothing that looks like a Solid Gold Watch and keeps time equal to any \$50.00 Watch. Here is your chance. We will give this handsome reliable Watch to any person who will sell for us only 10 Cook Books at 50c. each. These Books are nicely printed, beautifully bound and each contains 135 choice recipes. **EVERYBODY** buys one. A 50c. certificate free with each package. This is not a cheap pocket watch, but a handsome Watch, finished in 14k. gold, elegantly engraved, beautifully ornamented, stem wind and set, fitted with reliable American works, carefully timed and adjusted before leaving the factory, and positively guaranteed by the maker. If you could afford to pay \$50.00 for a Watch you could not get one that would look better, or keep better time than the one we here offer you absolutely free. T. F. Dunbar, Renfrew, Ont., says: "I sold the Watch for \$2.00 as soon as I got it." Write us a Post Card today and we will send the Cook Books postpaid. They sell themselves. **THE HOME SPECIALTY CO.,** Dept. 3324 Toronto, Ont.



Earn This WATCH

With polished silver nickel open face case, the back elaborately engraved, fancy milled edge, heavy bevelled crystal and keyless Wind, imported works, by selling only 15 large packages of Sweet Pea Seeds at 50c. each you can earn a watch. The packages are beautifully decorated in 12 colors and each one contains 42 of the rarest, prettiest and most fragrant varieties in every imaginable color. **EVERYBODY** buys Percy Bell, Little Rapids, Ont., said: "The seeds sold like wildfire." A 50c. certificate free with each package. Write us a post card to-day and we will send you the Seeds postpaid. Don't delay. Edward Gilbert, Petrolia, Ont., says: "I received my watch in good condition. It is a dandy and I am very much pleased with it." **THE HOME SPECIALTY CO.,** DEPT. 3324 TORONTO, ONT.



FUR SCARF FREE

Soft, warm, glossy black, 2 1/2, 6 inches long, 5 inches wide, made of selected full fur skins with 6 fine full tails. A handsome, stylish fur, given free for selling at 50c. each only 15 large packages of Sweet Pea Seeds. Each package is beautifully decorated in 12 colors and contains 42 of the rarest, prettiest and most fragrant varieties in every imaginable color. **EVERYBODY** buys them. Roy Sp. Cox, Mono Mills, Ont., said: "I no sooner opened my parcel than I had all the Seeds sold." A 50c. certificate free with each package. Write us a post card to-day and we will mail the Scarf postpaid. Don't delay. Mary Murphy, McPhail, Ont., says: "I am delighted with my fur. Everyone thinks it is beautiful." **THE HOME SPECIALTY CO.,** Dept. 3324 Toronto.

In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE.

Stephens

THE QUALITY OF THE OIL IS THE LIFE OF THE PAINT. MADE WITH MANITOBA LINSEED OIL.

PURE READY MIXED

PAINT

SOLD BY UP-TO-DATE HARDWARE DEALERS.

MANUFACTURED BY G. F. STEPHENS & CO., LIMITED, WINNIPEG.

Sample Color Card, showing 48 beautiful shades, sent on request.

Churn, Churn!

Windsor salt lightens the task of churning butter. Every flake of it dissolves quickly—you'll find no gritty particles in the butter, because Windsor Salt is all salt.

Windsor Salt.

Best grocers sell it.

Windmills. GET A CANADIAN AIRMOTOR

TO DO Your Pumping, and employ your own time to better use.

SAVES A LOT OF DRUDGERY.

Will tickle your family, especially the

HIRED MAN.

WE'LL MAKE LIFE WORTH LIVING. WRITE US:

Ont. Wind Engine & Pump Co.

TORONTO, ONT. (LIMITED).

Manitoba Agents: Manitoba Pump Company, Brandon, Manitoba.

WOODSTOCK

STEEL WINDMILLS

Galvanized or Painted. For Power or Pumping.

DANDY Windmill

with Graphite Bearings, runs easy and controls itself in the storm.

GRINDERS, PUMPS, WATER TANKS, DRINKING BASINS AND SAW BENCHES.

WOODSTOCK WIND-MOTOR CO., WOODSTOCK, ONT.



TRADE NOTES.

BLACKLEG.—The season is approaching when blackleg is likely to break out among young stock, and therefore the question arises as to the best way to avoid loss from this troublesome disease. The Pasteur Vaccine Co., whose offices are located in New York, Chicago, Ft. Worth and San Francisco, manufacture a vaccine known as "Blacklegine," which is claimed to be an absolute preventive against blackleg. It costs but little per animal, and the instruments for using it may be had for the small sum of 50 cents. We would advise those having need of such a preparation to give "Blacklegine" a trial.

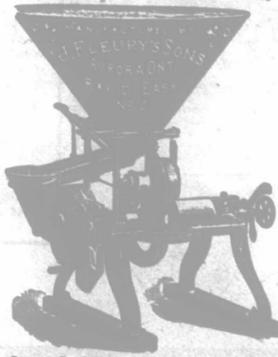
LIFE INSURANCE.—Life insurance has now come to be one of the safest investments and a means of providing for future needs that every one should avail themselves of. Policies in the Mutual Life yield profits during the life of the insured and thus commend themselves to the intending investor. The Mutual Life of Canada is one of the oldest of Canadian life assurance companies, being now in its thirty-fourth year. To show that its agents are not idle, it may be noted that the new business of 1902 amounted to \$4,527,000. The company is determined to keep its business on a solid basis, and have accordingly placed their new business on a 3% basis of valuation.

GOSSIP.

ROSELEA FARM.

North-west of Viridon, about one and a half miles, is situated the farm of Kenneth McIvor, known to most of our readers as the spot where Western rye grass was brought under cultivation. Besides bringing this nutritious fodder, so suitable for Western conditions, into prominence with the leading stockmen of this vast land and thus becoming so widely known, Mr. McIvor has also taken a foremost place as a breeder of Short-horn cattle, which has helped to widen the circle of his acquaintances. His herd at present are in fine condition, the matrons being large of size, with splendid constitution. The young stock are in fine shape, having wintered well. A number of young bulls—thick, deep fellows of good size and with plenty of masculinity—are ready for service. Strathcona =35421=, sired by Imp. Golden Measure, noted for his high-priced progeny, is the present stock bull. Golden Measure is leaving splendid stock. He was sired by Golden Count, bred by Wm. Duthie, and of the famous Missie family. The dam of Strathcona is Donside Beauty (imp.), by Prince of Fortune; grandam Donside Lass, by Gravesend. The oldest matron of the barnyard is Lady Bosshill, sire Bachelor, dam Eva, by Arnold. One of her daughters, Snowflake, sire Cairngorm, is of the same low-set, large, smooth type. Another choice one is Jenny Lind =30449=, sire Hickory Johnston, dam Minx, by Arnold. Pride of Roselea, sire Victor, dam Jenny Lind, is also one of great scale and true Scotch type. About 45 pure-bred Shorthorns are kept. A number of fine Yorkshire pigs are at home at Roselea Farm. A few of them are of Greenway's choicest breeding. At present, Mr. McIvor has no Western rye grass seed for sale, having disposed of it all to the Steele, Briggs Seed Co. We refer intending purchasers of stock to Mr. McIvor's ad., which will be found in this issue.

"RAPID-EASY" GRINDERS



THESE are the machines that DO THE WORK. For use with ANY POWER SMOOTH and BABY-RUNNING; good work and a BIG LOT of it in a day. MORE WORK with SAME POWER than ANY OTHER Grinder.

"I started a No. 1 Grinder yesterday with four horses on sweep power. It ran very nicely. We ground some oats, and it made a very good job of them, also some wheat, peas, rye and barley, all mixed together, and it made a fine job of them." JOS. STELLER, Harris, Ont.

March 16th, 1903. "The people to whom I sold the Grinder (No. 2) do a lot of grinding. They put through 175 bags last Thursday. They are well pleased with the machine." ADAM MCGILL, Paisley, Ont.

"I run your No. 3 'RAPID-EASY' Grinder by engine, and grind oats from 60 to 75 bushels per hour, barley and spelt 80 bushels per hour. I run the machine at 1,400 per minute. The engine uses it easily, and the work could not be better. I grind for the public, and the farmers are pleased with the work I am doing. I can highly recommend your Grinder." JACK BOLACE, Balder, Man.

PROVINCIAL AGENTS:

Lithograph hanger and information on application to: The Fairchild Co., Winnipeg, Man.; The T. J. Trapp Co., New Westminster, B. C.; W. R. McGaw, Vernon, B. C.; A. A. Johnston, 212 St. Paul St., Montreal, Que.; P. T. Lesare, Quebec, Que.; J. Clark & Son, Fredericton, N.B.; The Lounsbury Co., Newcastle, N. B.; W. F. Dibbles & Son, Woodstock, N. B.; The Sussex Mercantile Co., Sussex, N.B.; Bligh & Prince, Truro, N.S.; Illsley & Harvey, Ft. Williams, N. S.; A. Horne & Co., Charlottetown, P. E. I.; J. M. Clark, Summerside, P. E. I., or

J. FLEURY'S SONS, Aurora, Ontario, Canada.

Write to-day. Medals—World's Fairs, Chicago and Paris. Write to-day.



BARGAIN SALE

REMAINS SILK REMNANTS almost FREE. We have recently purchased several thousand dollars worth of Ribbon Remnants, in London. Sold much below the actual cost of manufacture. We are thereby enabled to offer the lady readers of this paper an immense quantity of beautiful ribbon. They are all remnants from the best makers in the world, and run from one to three yards in length, and from 1/2 inch to 3 inches wide. Among these ribbons are some of the very best quality, Green, Blue, Grey, Gold, Silver, White, Black, and many other colors. They are all suitable for hats and dresses, and will not fade or wash out. All first class. No lady can afford to miss these ribbons as they are at any store in the land for many times their price. Don't miss this bargain. Write to-day. J. Fleury's Sons, Aurora, Ontario, Canada. Price, per box, only 50c, or 10c per yard. Wholesale, 25c per yard. J. Fleury's Sons, Aurora, Ontario, Canada.

A GOLD WATCH FOR THE CORRECT ANSWER



A beautiful Gold-finished Watch, handsomely engraved (Ladies' or Gentlemen's size), will be given to everyone who correctly answers the following puzzle:

V-T-R-A

There are four letters, represented by four dashes, omitted from the above word, and when the proper letters are supplied the complete word will be the name of a very good Queen. To everyone who sends us the correct answer we will present a very lovely Free, a beautiful Gold-finished Watch, such as anyone would be proud to own. If you are smart, you can solve the puzzle and send us the correct answer at once. It will cost you only one cent for a Post Card, immediately on receipt of your answer we shall promptly write you, explaining one further condition necessary to be complied with by you to be a successful competitor for one of these beautiful and valuable Watches. This condition is very simple; in fact, it is merely a slight favor more than half an hour of your time. We shall write you all about it and tell you more about this beautiful Watch as soon as we hear from you. Boys and Girls, here is your chance. Send us your answer on a Post Card at once. Is not this beautiful Watch worth the investment of one cent for postage? Do not fail, as we have only a limited number of these valuable Watches on hand. Address: ENTERPRISE CO., DEPT. 3326 TORONTO, ONTARIO.

THE LOVELIEST SILK REMNANTS YOU EVER SAW—ALMOST GIVEN AWAY



Enough heavy, rich, elegant silk squares to make 2 large sofa cushions for only 10c. All good big pieces, some so large that you will have to cut them up. How can we do it? Why, because we picked up a great bargain at a European Silk Mill. They had an immense stock of extra fine samples of their very best silks cut in large pieces for their travellers to take orders with from wholesale houses, and offered us the lot at a price which enabled us to give you this great bargain. We closed the deal and now we are giving our lady friends the benefit. Think of a package of the beautiful, large pieces, all of the newest patterns, stripes, checks, flowers, rich heavy gauze, etc., enough to make two large cushions, or drapes, table, and a hundred other lovely things to beautify your home, for only 15c. In making this kind of fancy work a great point is to have variety of patterns, is it not? Well, in the whole of this immense stock there are no two pieces alike. With each package we send from 10 to 20 different patterns, giving over 100 fancy stitches for ornamenting the same, which will add a hundredfold to the beauty of your work. Don't miss this chance. We shall never be able to buy pieces like these again, and so will not be able to offer them to you. Read what ladies say who have bought our Silk Squares: Corral P.O., Ont. "I was very much pleased with the silk remnants. There were more pieces and of better quality than I expected."—Mrs. T. Hibbs, Balton P.O., Ont. "I think your Silk Remnants are just lovely. Please send me some more."—Miss Aggie Smellie, Milltown P.O. "I enclose 50c for 2 more packages of Silk Remnants. I was very much pleased with both the quality and quantity, as you may judge by my repeating my order."—Mrs. W. E. Saxby, Pembroke, Ont. "I am very much satisfied and delighted with the Silk pieces received. I have found them very useful and beautiful."—Mrs. J. Hunsman, Centralia, Ont. "I am sending for 2 more packages of Silk pieces. I think they are very nice and the cheapest bargain I ever got."—Mrs. Wm. Huxford. We have hundreds more like these. Price, 1 package, 15c; 2 packages, 25c. Don't send stamps. Already we have filled 11,781 15c. orders, and 17,022 25c. orders. Write to-day. Supply Co., Silk Dept. 3326 Toronto, Ontario.

In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE.

How to make DOLLARS

Out of Chicks. Coarse grain and frosted wheat will net \$1 a bush. If turned into chicken flesh Poultry is the surest crop. The demand is unlimited.



The Chatham Incubator

will pay for itself in one hatch. It is built to last a lifetime, and will hatch a dozen broods a year. The prices are right. In the guarantee we find where no other maker dares to follow. Write for catalogue and price.

WM. ATWELL, Brandon, Man.,
General Agent.

The M. CAMPBELL FARMING MILL CO., Chatham, Ont.

Virton Duck Yards, MENLOVE & THICKINS,
Proprietors. (Successors to J. F. O. Menlove.) Pekin ducks for sale. Orders for eggs booked now. \$1.50 per setting. 25 per 100.

VIRAMON, MAN.
Agents for Cyphers Incubators, Brooders, Supplies.

EGGS! EGGS! EGGS!
S. C. White Leghorns, \$1.50 per 12.
W. S. KIMES, Winnipeg, Man.

IT'S AN ACTUAL FACT

Chambers' Banded Rocks are better than ever. Do you remember their great sweep at Brandon's Big Sale? 1st and 2nd cock, 1st and 2nd hen, 1st and 2nd pens, special for best pair, and silver cup for best pen, may be had. At Manitoba Poultry Exhibition, 1915, I won the lion's share of prizes. Eggs for hatching, \$2 per 12; also Buff Rocks and S. C. R. Leghorns. **THOS. H. CHAMBERS,** Brandon, Manitoba.

LOUISE BRIDGE POULTRY YARDS

Headquarters for pure-bred poultry. Banded Plymouth Rocks, single and rose-comb White Leghorns, White and Black Wyandottes, Black Langshans and Blue Andalusians. My stock holds the highest prize record in Western Canada. Eggs for hatching, \$3.00 per 12. **GEORGE WOOD,** Louise Bridge P. O., WINNIPEG, MAN.

EGGS FOR HATCHING

From **GOLDEN WYANDOTTES INDIAN GAMES** and **BARRED ROCKS**, \$5 for 15 eggs. These are from birds winning highest honors at Virton and Winnipeg last month. A few choice birds for sale; also pigeons and Belgian hares.

S. LING, 128 River Avenue, WINNIPEG.

EGGS AND COCKERELS FOR SALE. White Wyandottes only fowls kept. Cockerels of select breeding on hand. Eggs \$2.00 a setting, or three settings for \$5.00. **JOHN KNOWLTON,** Brandon.

Poultry and Eggs for Sale. B. Rocks and Silver Wyandottes. Good stock always on hand. Eggs, 13 for \$2.00, or 40 for \$5.00, from same stock which I use for my own hatching. **A. J. CARTER,** Brandon.

MOLINE POULTRY YARDS

HEADQUARTERS FOR **W. P. ROCKS.** Won at Manitoba Poultry Show, Virton, 1913: 1st cock, 1st, 2nd and 3rd cockerel, 1st hen, 1st pullet, and special for 2 highest-scoring W. P. Rocks. Eggs, 13 for \$3, or 26 for \$5. **PETER KAHLER,** Moline or Rapid City.

WRITE AT ONCE. For catalogue and testimonials. They are free. Ship your eggs in Morgan's Egg Baskets. We manufacture Incubators, Poultry Appliances and Supplies exclusively. It is not a side line with us. **MORGAN'S Incubator Works,** London, Ont.

EGGS FOR HATCHING. White Wyandotte, Buff Orpington, Houdan and Pekin duck, \$1.25 per setting. **O. W. BEAVER,** Pinegrove, Prescott, Ont.

FOR PURE-BRED

O. I. C. and YORKSHIRE SWINE
Write Jas. Austin, Hannah, N. Dakota, Canadian shipping point, Snowflake, Manitoba.

Tamworths for Sale. Stock boars: General Buller, winner of first every time shown at Winnipeg, and Portage King. Pigs of both sexes and all ages, the younger ones sired by General Buller. **I. A. BRADLEY,** Box 134, Portage la Prairie.

Bruce's Giant Feeding

SUGAR BEETS.



THESE GRAND FEEDING BEETS, introduced by us lately, have found great favor with all who have grown them. They combine the fine rich qualities of the sugar beet with the long-keeping, large size and heavy-cropping qualities of the mangel. The roots are clean and tops small, white flesh, solid, tender and very sweet, and on account of the bigger part of their length growing out of the ground, they are easily harvested. They will easily outyield all the older kinds of sugar beets, and come very close to that of the heaviest-yielding mangels of the intermediate type. The past season some fine roots, weighing as much as 15 lbs., were exhibited, and we have no hesitation in recommending this fine variety as the best for stock-feeding on the market at the present day. The roots are the largest, handsomest, most uniform and cleanest of all sugar beets, and this, combined with their great richness and easy-harvesting quality, makes them the "beau ideal" of a root for the farm. We offer in two colors, ROSE and WHITE:

1-4 lb., 13c. 1-2 lb., 20c.
1 lb., 35c., 4 lbs., \$1.20.
(Postpaid.)

Write for our beautifully-illustrated, up-to-date catalogue (88 pages), of "Everything Valuable in Seeds." Free to all applicants.

John A. Bruce & Co.,

ESTABLISHED 1850. ON HAMILTON, CAN.

UP TO DATE

Our Specialty
FROST Ornamental Gates
Light in weight
Artistic in design
Reasonable in price
Just the thing to be used with your new Ornamental Lawn Fence.
The Frost Wire Fence Co. Ltd.
Welland, Ont.
Winnipeg, Man.

A GREAT COMBINATION!

GOOD COWS AND A U.S. SEPARATOR
FILL THE FARMER'S POCKETS WITH MONEY!

The U. S. Separator gets all the cream from the milk. The cream makes the butter. The skim-milk makes the calf. All bring in the cash.
Send for Catalogue

VERMONT FARM MACHINE CO., Bellows Falls, Vt.

CYPHERS INCUBATORS AND BROODERS

used exclusively at Maw's Poultry Farm, Winnipeg.

AFTER 20 years' experience with many of the leading makes, we, as experts, have decided that the Cyphers is specially adapted to our climate and have discarded all other makes. We are special agents for the Northwest, and carry a full stock in Winnipeg. We can supply you a machine without delay, and have reduced the prices from those charged last year, giving our customers the advantage of car-lot rates. We give a 10-years guarantee and our incubator expert will answer all questions during operation by return mail. We carry a full line of poultry supplies, including Mann & Wilson Green Bone Cutters, Poultry Hooks, Limestone Grit, Granite Mica Grit, etc. Also Acclimatized Utility Breeds of Leghorns, Wyandottes and Orpingtons. Catalogues mailed free. Address:

MAW'S POULTRY FARM, WINNIPEG, MAN.

ELKHORN STOCK FARM.



O. I. C. swine, Hereford cattle, B. P. Rocks and L. Brahmas. No cattle for sale. **A. E. THOMPSON,** Wakopa, Man. Kings, C. P. R., shipping station.

Home Bank Farm

OF LARGE ENGLISH BERKSHIRES. Are still to the front. Some grand sows, bred for the spring trade. Have two fine litters ready to ship about March 15th. Now booking orders. Call or write for prices.

Jos. Laidler, Neepawa, Man.

Improved Yorkshire Swine

A few young boars and sow for sale; can be registered. Apply to

YORK SHAW, Midnapore, Alberta.

T. E. M. BANTING, Banting, Manitoba. Breeder of prize Tamworths. Both sexes, young and old, for sale. On Glenboro branch of C. P. R.

YORKSHIRES!

The Best Bacon Breed. If in need of any, write us (stamps accepted). We will send full particulars re breeding, prices, etc. Nothing to ship now. Address:

KING BROS., Wawanosa, Manitoba.

American Leicester Breeders' ASSOCIATION.

A. W. Smith, Pres., Maple Lodge, Ont.

Pedigree now being received for Vol. 4. For information, blanks, etc., address:

A. J. TEMPLE, Sec., CAMERON, ILL., U. S. A.



"What a Wise Old Chap!" He has left his hide in good hands. Send for our circular in reference to custom tanning. We send samples of work with circular.

GARRUTHERS & CO., TANNERS, and dealers in hides, wool, sheepskins, furs, tallow, etc. 9th Street, Brandon, Man.

GALLOWAYS:

Bulls and heifers for sale.

APPLY TO **T. M. CAMPBELL,** "HOPE FARM,"

St. Jean Baptiste, Manitoba.

ABERDEEN-ANGUS AND BERKSHIRES.

One deep, blocky April bull calf for sale. Order booked for spring pigs, sired by Nora's Duke—7900—bred by J. A. McGill and King Edward—10852—**F. J. COLLYER,** Houghton Farm, Welwyn, ASSA.

Aberdeen-Angus Cattle.

Pure-bred Clydesdale Horses.



It will pay Canadian farmers TO WRITE

JOHN R. CAMPBELL, Prop. HIGHLAND STOCK FARM, CLYDE, MINN., U. S. A.,

For prices on **CLYDESDALE STALLIONS** from strains that are famous the world over. Has been a breeder of Aberdeen-Angus Cattle for 20 years.

Address **JOHN R. CAMPBELL,** Highland Stock Farm. CLYDE, MINN., U. S. A.

In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE.



We Harness Electricity

And make it Light, Heat and Protect Your Homes; Run Your Factory and Machines; Install Telephone and Electric Light and Power Plants.

Our facilities for supplying your needs in Electrical Goods is without an equal in Western Canada. Every good thing for every purpose is obtained here.

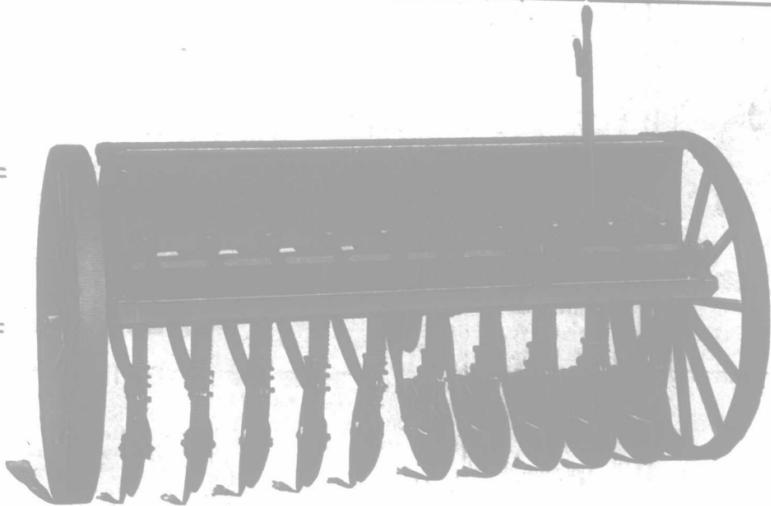
Rural Telephones

Why not have your farm connected with a Telephone Exchange? The advantages are many and the cost is trifling. We're prepared to submit estimates for the proper equipment—Poles, Wire, Telephones, Switch-boards, Etc., Etc. We will be glad to submit you a plan whereby you can have all the advantages now enjoyed by Telephone users in towns and cities. Will we hear from you?

ERNEST S. HARRISON CO.,
LIMITED.

264 PORTAGE AVE., WINNIPEG.

SUPERIOR DISC DRILLS



SUPERIOR DRILLS ARE NOW ON SALE IN CANADA.
THE above illustration shows the SUPERIOR SINGLE DISC DRILL. It is an interchangeable Drill. It can be supplied with Double Discs or Shoes, as purchaser may desire. To change from one style to another it is only necessary to remove draw-bars and discs. The bars bolt to front of frame. SUPERIOR DRILLS are made of the best material. They are strong and durable. They save seed, time, worry and repair bills. They do more work with less labor to both man and team than any other drill. SUPERIOR DRILLS successfully sow all kinds of grain, under any condition of seeding, in every section of the grain-growing world.

WRITE FOR FREE CATALOGUE AND INFORMATION TO
CANADIAN MOLINE PLOW CO., WINNIPEG, MAN.

In answering any advertisement on this page, kindly mention the FARMERS ADVOCATE.

POPLAR GROVE HEREFORDS



The Leading Herd of Western Canada

YOUNG BULLS FOR SALE

J. E. MARPLES, Deleau, Man.

THE SUNNYSIDE HEREFORDS
Onward 120463 at head of herd; sire Imp. March On 70033. For sale, 4 bulls, ranging in age from 15 mos. to 3 years old; 3 choice young cows and 4 heifers, from 10 mos. to 2 yrs. old. Visitors welcome. In O'Neill Bros. Southgate, Ont. Lucas Station, G. T. R. Elderton Station, L. H. & K.

D. FRASER & SONS,
EMERSON, MAN.

Brooders and importers of Durham Cattle, Shropshire and Southdown Sheep; Berkshire, Tamworth and Poland-China Pigs.

HEREFORD BULLS For Sale.

From 12 to 22 months old; 4 imported from England, 12 from the best herds of the United States, and four home-bred. Individual quality and breeding of the choicest. Sale stalls situated in Regina.

ROBT. SINTON, REGINA.

CLYDE Stallions, Fillies and Mares



SHORTHORN Heifers and Bulls.

All for sale; no reserve. Prices and terms to suit. Improved farms for sale.

J. H. SMITH,
SMITHFIELD AVE.,

Brandon, Manitoba.

CLAREMONT STOCK FARM.

Shorthorns and Clydesdales. For sale, stock bull, President, a Winnipeg winner; a thick, low-set, smooth animal. Also young stock of both sexes, mostly of the best family, some bred by the well-known Caithness, balance by President.

MRS. C. H. BROWN, MANITOULAN, MAN.

PURVES THOMSON, PILOT MOUND, MAN.

FOR SALE—40 Shorthorns, young heifers and bulls, from Caithness. Good show animals. Some exceedingly good Clydesdale fillies and mares. All at reasonable prices.

Scotch Shorthorns.

Six very choice bulls, ranging in age from 6 months to 20 months, 4 reds and 2 browns. As we are overstocked, for the next two months will give special bargains. Winnipeg, 6 miles; Bergen Station, 1 1/2 miles. Visitors met if not fed in time.

H. O. AYERST, Mount Royal, Man.

Shorthorns for Sale—Two well-bred young bulls

20 and 11 months old. Large, growthy individuals, of choice quality and low-set type.

GEO. ALLISON, Burnbank.

SHORTHORNS AND BEEKS FOR SALE.

Stock bull, Sir Caithness; also young bulls and heifers of his get, possessing extra quality and good bone. Large Berks for sale, of both sexes. Purchaser's livery paid.

R. M. WILSON, Pilot Mound Station, Marringhurst P. O.

FAIRVIEW STOCK FARM.

Ayrshires, Yorkshires and B. Minors. For sale: Stock bull, Craigieles of Auchincrain (imp.) (3302)—1891—, 1st at Toronto, and 3 choice young bulls of his get. Fall pigs on hand and spring orders booked.

WELLINGTON HARDY, Roland, Man.

Registered Shorthorns FOR SALE

We are now offering three bull calves, by Lord Stanley 25h—2527—, and a few two-year-old heifers by Rosser Lad—2380—. Prices right.

WALTER JAMES & SONS,
ROSSER, MANITOBA

WINNING THEIR WAY ON QUALITY ALONE

"SALADA"

CEYLON GREEN teas are pure, delicious and wholesome, and as far ahead of Japan teas as "SALADA" Blacks are ahead of all other black teas. Sold only in sealed lead packets—25c., 30c., 40c., 50c. and 60c. per lb.

SHEEP FOR SALE

For a short time only I offer the remainder of my sheep, numbering 950 head, at the following prices:

- Yearling Wethers at \$2.75 per head.
- 2-year-old and 3-year-old Wethers at \$3.60 per head.
- Bred Ewes, 2 years old and up, at \$3.50 per head.

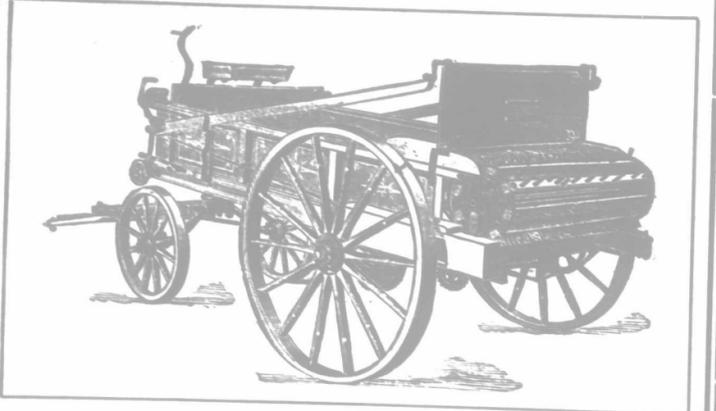
Also a number of aged dry ewes cheap. These sheep have been well wintered, and are heavy shearers.

E. E. BAYNTON, MAPLE CREEK, ASSA.

SAVE 20 CENTS PER SHEEP on every sheep you shear with
STEWART'S PATENT SHEEP SHEARING MACHINE

The day of the old fashioned hand shears is past. No owner of 20 sheep or more can afford to shear by hand, even though the work be done for nothing. Don't butcher your sheep. Shear with this machine and get ONE POUND of wool EXTRA PER HEAD. It will more than cover the cost of shearing and today for valuable wool, "Wool on Shearings." It is free and will save you money.
 CHICAGO FLEXIBLE SHAFT CO., 116 Ontario St., CHICAGO.

Kemp's 20th Century Manure Spreader.



A CROP-MAKER and A LABOR-SAVER.

Drop a postal card for our Booklet, entitled "Multiplying His Acres."

The KEMP MANURE SPREADER CO., Limited
 STRATFORD, ONT.

GOSSIP.

Jas. Gorrell & Sons, Pilot Mound, have made the following purchases from Purvis Thomson, Pilot Mound, Man.: Caithness Duke =45519=, roan, by Caithness =22065=, dam Gay Mysie =29059=, and Minnie May =30966=, by Hillary =18071=, dam Minnie M. =20959=, with her heifer calf, Minnie Lass, by side, by Caithness =22065=, his grand old stock bull. Messrs. Gorrell & Sons have made some successful sales during the winter, and they now contemplate going into breeding on a larger scale.

At the draft sale from the Shorthorn herd of Mr. Wm. Bell, Alnwick, Northumberland, England, on March 18th, the 54 head sold brought an average of \$350. The 15 bulls, all but one bred by Mr. Bell, an extra good lot, made an average of \$635. The roan two-year-old, Baron Ratcheugh, recently illustrated in the "Advocate," bred by Mr. Bell, winner of second at the Royal Show at Carlisle, 1902, brought the highest price of the day, \$2,626, being bought by Mr. McLennan for South America. Two other bulls sold for 200 guineas each.

Walter James & Sons, Rosser, Man., report the following sales: Roan bull calf, Livingstone—45933—, by Lord Stanley 25th—29247—, out of Lena Arkwright—23822—, to Robert Leffey, of Rosser, Man. A dark roan bull, Weston Chief—44996—, by Gold Minister—36905— out of Crimson of Highfield—26844—, to Edward McKi or, of Balmoral, Man. Yearling red bull, Manawan—45934—, by Lord Stanley 25th, and out of Marjorie—30046—, to Richard S. Coupe, Lake Francis, Man. Red cow, Ladysmith—40211—, by Rosser Lad—23980—, out of Mahtab—25464—, with an exceptionally fine red bull calf at foot, by Lord Stanley 25th, to J. W. Phipps, Lillyfield, Man. Red and white bull, Wallflower's Chief—44995—, by Loyalty (imp.)—10437—, out of Wallflower Witch, Vol. XIX., sold to J. T. Balfour, Meadow Lea, Man.

OFFICIAL RECORDS OF HOLSTEIN-FRIESIAN COWS.

Some of the best records made from February 10th to March 14th, 1903, are given below:

Sadie Vale Concordia 32259, age 10 years 2 months 24 days. Record for twenty-eight days: days after calving, 5; milk, 2,565.6 lbs.; butter-fat, 92.327 lbs., equivalent to 115 lbs. 6.5 ozs. butter 80 per cent. fat, or 107 lbs. 11.4 ozs. 85.7 per cent. fat. Best seven consecutive days: Days after calving, 14; milk, 694.3 lbs.; butter-fat, 24.508 lbs., equivalent butter 80 per cent. fat, 30 lbs. 10.2 ozs., or 28 lbs. 9.5 ozs. 85.7 per cent. fat. Owner, McAdam & Van Heyne, Deansboro, N. Y.

May Hartog Pauline De Kol 45124, age 4 years 11 months 8 days. Record for thirty days: Days after calving, 14; milk, 2,552.3 lbs.; butter-fat, 89.637 lbs., equivalent butter 80 per cent. fat, 112 lbs. 0.7 ozs., or 104 lbs. 9.2 ozs. 85.7 per cent. fat. Best seven consecutive days: Days after calving, 20; milk, 633.2 lbs.; butter-fat, 23.417 lbs.; equivalent butter 80 per cent. fat, 29 lbs. 4.3 ozs., or 27 lbs. 5.1 ozs. 85.7 per cent. fat. Owner, H. D. Roe, Augusta, N. J.

Army's An 4th 50398, age 4 years 1 month 3 days. Record for thirty days: Days after calving, 8; milk, 2,311 lbs.; butter-fat 71.780 lbs., equivalent butter 80 per cent. fat, 89 lbs. 11.06 ozs., or 83 lbs. 11.9 ozs. 85.7 per cent. fat. Best seven consecutive days: Days after calving, 20; milk, 585.6 lbs.; butter-fat 17.822 lbs. equivalent butter 80 per cent. fat, 22 lbs. 4.4 ozs., or 20 lbs. 12.7 ozs. 85.7 per cent. fat. Owner, H. D. Roe, Augusta, N. J.

Lady Oak Fern 44126, age 5 years 11 months 4 days. Record for thirty days: Days after calving, 13; milk, 1,875.4 lbs.; butter-fat 70.311 lbs., equivalent butter 80 per cent. fat 87 lbs. 14.2 ozs., or 82 lbs. 0.5 oz. 85.7 per cent. fat. Best seven consecutive days: Days after calving, 27; milk, 450.3 lbs.; butter-fat 17.416 lbs. equivalent butter 80 per cent. fat, 21 lbs. 12.3 ozs., or 20 lbs. 5.1 ozs. 85.7 per cent. fat. Owner, W. H. Jones, Watertown, Wis.

Choice young Shorthorn Bulls for sale: Stock bull, 3 years old, Woodworth Duke, and four thick, growthy bull calves, from 10 to 12 months old. Prices reasonable. H. H. TOLTON, Oak Lake, Man.

SHORTHORNS FOR SALE

Two young bulls, grandsons of the famous Kenneth Duster (imp.); also several females of various ages. A. & D. STEWART, WESTBOURNE.

The **Bowness** herd of **Shorthorns**

Containing 200 head of pure-bred Scotch Shorthorns. As I am reducing the size of my herd, now is the time for bargains in leifers and cows to start your farm with. Please write to

W. BERESFORD, Calgary, Alta.
 LATE SAMSON & MACNAGHTEN.

ROSELEA FARM
 SHORTHORN BULLS FOR SALE, mostly sired by Sir Victor or Strathcona. Six of them are 2-year-olds and 6 yearlings; also females of all ages. Several young York. heifers fit for service. **KENNETH McIVER, Virden.**

GREENDALE STOCK FARM.

Have several young Shorthorn bulls for sale—thick, sappy fellows, of good families. Also a few upstanding, well-bred teams, weighing from 23 to 32 cwt. Prices right. **F. W. GREEN, Moose Jaw, Assn.**

Nonsuch Stock Farm—Shorthorns for Sale.

Four choice young bulls, sired by Caithness Yet; yearling heifers by Sir Colin Campbell. Cows in calf; also good driving team, 4 and 6 years old. All at right prices and terms. Write quick.

W. E. PAULL, KILLARNEY, MAN.

LAKE VIEW STOCK FARM.

Shorthorns FOR SALE.

I am offering my whole herd for sale. In this offering there is that grand stock bull, Clan McKay (imp.); Empress of India (imp.) and her heifer calf, about 12 months; this is a show calf in any country; also some good cows and heifers; some of them have calves at foot by Clan McKay (imp.) and served again. There is no reserve. All cheap if sold now. It will pay any one wanting good cattle to see them before buying, and get some show and good breeding stock. No reserve.

THOMAS SPEERS, Proprietor, OAK LAKE, MAN.

REGINA STOCK FARM

Ayrshire cattle and Improved Yorkshire pigs. For sale: choice young bulls, ready for service. Improved Large Yorkshires of the highest bacon type kept. Orders for spring pigs booked.

J. O. POPE, Regina.

GLENROSS FARM.

SHORTHORNS for sale: Stock bull, Golden Flame, 2nd at Toronto in class under a year. Also 5 choice young bulls, from 6 to 16 months old, sired by him.

A. & J. MORRISON, Carman P. O. and C. P. R. sta. Homewood sta. (C.N.R.) on farm.

SHORTHORNS

Bulls and Females.

Reds and roans, all ages, good cattle, choicely bred, and at prices buyers can make money on. We are not going out of business, but going to do all the business we can. Write us or call on us if interested. Will treat you right, and meet you if advised in time. Golden Rule is our motto. Come and try us.

D. HYSOP & SON, BOX 103, KILLARNEY.

LANDAZAR STOCK FARM.
 2 1/2 miles east of station.

In placing any advertisement on this page, kindly mention the FARMER'S ADVOCATE.

SCOTTISH SHORTHORNS.

FOR SALE.—16 bulls, from one to two years old; 16 year old heifers; a few two-year-olds, bred to Sir Colin Campbell (Imp.); also cows and calves. General—30399—, Lord St. Valey 43rd—35731—, and Sir Colin Campbell (Imp.) 28878, our present stock bulls.

GEO. RANKIN & SONS HAMIOTA, MAN.

PLAIN VIEW STOCK FARM.



COTSWOLD, SHORTHORN, BERKSHIRE. FOR SALE: Bulls, heifers and cows of good quality; also a nice lot of boars and sows, all ages. A few Cotswolds at reasonable prices. Write or come and see them. F. W. BROWN, Proprietor. Portage la Prairie, Man.

THORNDALE STOCK FARM

138 Shorthorns in Herd. FOR SALE: Royal Judge—29260—, one of the stock bulls, winner of 1st at Winnipeg and Brandon, and 19 young bulls; also, females of all ages. JOHN S. ROBSON, MANITOU, MAN.

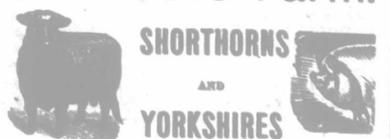
SHORTHORNS AND CLYDES FOR SALE.

Three choice young bulls sired by Nevada (Imp.) Also a few cows and heifers. One yearling stallion got by (Imp.) McKinnon, and a few mares. A. & J. CRADDOURN, Ralphton, Man.

LAKEBIDE SHORTHORNS FOR SALE

Stock Bull, Sir Colin Campbell (Imp.), winner of 2nd place at the Winnipeg Industrial, 1902; also Royal Campbell, rising 2, another Winnipeg winner, and two bull calves under 1 year—the low-set, growthy kind—sired by Sir Colin. R. McLennan, Holmfield.

Oak Grove Farm.



One choice young bull by Masterpiece, he by Grand Sweep (Imp.); a few heifers by the same bull; also some by Village Hero and Knuckle Duster (Imp.). Some young sows of spring litters, and an extra choice lot of W. P. Rock cockerels. One pure-bred Billy goat (Angora). I am offering bargains in heifers. Correspondence solicited. JAS. BRAY, LONGBURN, MAN.

Registered Shorthorns

FOR SALE. Two 10 months-old Ontario-bred bulls, only a few heifers and cows of all ages left. Prices according to quality. Pleased to meet visitors at Rosser Station. WALTER JAMES, ROSSER P. O., MAN.

MARCHMONT HERD

Scotch-bred Shorthorns

The 2 imported bulls, Prince Alpine and Barrister, head a herd of 90 imported and Canadian-bred, Scotch topped cattle. A catalogue showing their breeding is now printed, and will be forwarded on application. 25 young bulls for sale, of modern breeding and good conformation, and at moderate prices. W. S. LISTER, Middlechurch P. O. (7 miles n. of Winnipeg.) Tel. 10046.

FOREST HOME FARM

Shorthorns, Yorkshires, and Barred P. Rocks FOR SALE: A number of choice young bulls. A fine lot of boars fit for service. Sows of different ages, bred and ready for breeding. Young pigs, both sexes. An exceptionally fine lot of cockerels—large, healthy, well-bred fowls. All at reasonable prices. Carman, C. P. R.; Roland, C. N. R. ANDREW GRAHAM, Pomeroy P. O.

SHORTHORN BULL

FOR SALE: Prince of Fortune, by New Year's Gift; dam Matilda 9th, traces to Matilda (Imp.); a strong, red 1-year-old, bred by Thos. Russell & Sons, Exeter. W. D. HUNT, Fairmeade, Assn.

GOSSIP.

North-east of Portage la Prairie, some seven miles, on the famous Portage Plains, stands the home of F. W. Brown, President of Manitoba Sheep and Swine Breeders' Association. Mr. Brown is not only an extensive breeder of sheep and swine—Cotswolds and Berkshires—but also keeps a herd of 45 Shorthorns. The young stock are in good shape, the calves being an exceptionally growthy lot, sired by Spicy Robin. The yearling heifers, nine in number, are a low-set, well-developed bunch, several of them show winners, and sired by such bulls as Prince Victor (Imp.), MacIntosh (Imp.), Spicy Robin and Lyndhurst. Four young bulls of good size and conformation, sired by Spicy Robin and Lyndhurst, complete the list of the younger members of the herd. Spicy Robin is the present stock bull. He is possessed of good size and abundant masculinity. In heart-girth he is exceptionally strong, and this depth and thickness is carried well back. He has a broad, thick-fleshed back, straight lines and deep, plump hind quarters. Flossie Fergus, one of the cows, weighs 18 cwt. She is a low-set, smooth individual, a winner of several prizes. Gatie 5th, bred by Watts, of Salem, Ont., another good one, has stood first in her class at Winnipeg, Brandon and Portage.

Wild Monchief, a Standard-bred stallion, is also owned by Mr. Brown. This horse has sired a number of the best road and carriage horses in his locality. A colt of his get won first at Portage last year. The one that took second went to Winnipeg and there got first, Monchief's colt not being there to compete.

In Berkshires, about fifty are kept, many of them prizewinners, and some recently brought out from Ontario. Tippecanoe 2nd, winner of first as yearling at Winnipeg's last fair, is the present stock boar. He was sired by Tippecanoe, a great Manitoba show boar, and this young boar's grandam is the noted Bonnie Queen, also a great show winner. One of the present sows is Cora Bella, winner of first at Toronto, London, Guelph Fat Stock Show, also sweepstakes at Winnipeg. She has a large litter of thrifty youngsters, lately weaned. Dominion Lass, bred by F. A. Cox, Brantford, is also a sweet-saver winner. An extra good breeding sow is Lady Bell, sire Manor Hero (Imp.), dam Highclere 20th (Imp.).

PROSPECT FARM.

A few miles north of Portage la Prairie will be found the home of John Wishart, breeder of Clydesdales and Hackneys. At the Winnipeg Industrial and other leading fairs, both breeds have brought away, in various classes, the highest honors, which of itself testifies to the breeding and individual merit of the class of stock raised at Prospect Farm. In the brood mare and progeny class at Winnipeg last year, Lady Granite, with her two-year-old daughter, Wonderful Girl, and sucking colt, Prince Prospect, won first. Lady Granite is a large, smooth mare, with good clean limbs, sired by Granite City, dam Lady Slack, a winner of firsts several times at Winnipeg. Prince Prospect won first in foal class last year at Winnipeg, Brandon and Portage la Prairie. He is a well-developed colt, with good, clean limbs, and was sired by Prince of Eden Grove. Lady Coleridge, sired by Lord Coleridge, dam Lady Slack, won, along with Lady Granite, first as draft team at Winnipeg. Wonderful Girl is a large, well-muscled filly, with a splendid neck and good quality throughout. She won third at Winnipeg and second at Brandon and Portage in her two-year-old form last year. Lady St. Gatien, sire St. Gatien, dam Lady Granite, is a three-year-old of fine quality. She has a splendid chest and good, clean bone. Maud Granite, sired by Granite City, dam Maud Slack, is another of blocky make, with good bone and lots of Clyde character. The colts, three in number, are a neat, growthy lot, sired by Prince of Eden Grove. In Hackneys, Jenny Young, sire Fire Fly, deserves mention, not only for her individual quality, but also for her winning progeny. A yearling filly out of her, by Clairman, won second at Winnipeg and first at Brandon and Portage la Prairie last year.

THE BLOOD OF TOPSMAN Breeds on. JNO. G. BARRON is offering for sale

10 SHORTHORN BULLS

Aged 12 months to 14 months, sired by Nobleman (Imp.)—28871—. Also for sale, three following noted Shorthorns:— 1. Topsmann's Duke—29045—First prize and sweepstakes bull at Winnipeg Industrial, 1901, and 1st prize in aged bull class, 1902. 2. Sir Arthur Grant—30503—Two years old, and out of Jenny Lind IV.; got by Nobleman (Imp.)—28871—. 3. Nobleman (Imp.)—28871—. Stock is all open for inspection. No "culls" in them. You will always be made welcome at

FAIRVIEW STOCK FARM, CARBERRY, MANITOBA.

Three miles from town of Carberry. Also call at Western Stables, Carberry.

PRAIRIE HOME STOCK FARM

CLYDESDALES, SHORTHORNS, AYSHIRE, SHROPSHIRE, BERKSHIRE and YORKSHIRE. Shorthorn herd headed by Judge, Imp. Hittton Hero 7th and Moneyfuffel Banner. Ayrshires of the best quality; herd headed by Surprise of Burnside and Paul King. Shropshires of all ages for sale. Summer Hill Monarch and a large number of high-class sows represent the approved bacon type of Yorkshires. The Berkshire boar, Victor (Tandale), sweepstakes at Brandon and Winnipeg, 1900, and 30 sows of faultless conformation and superior breeding, make up the Berkshire herd. Farm 1 mile from the station. Visitors welcome. Prices and quality right. THOMAS GREENWAY, PROPRIETOR. Address all communications Crystal City, Man. on farm business to Waldo Greenway, Crystal City, Man.

NEW IMPORTATION

Arrived January 21st, 1903.

Thirty-five first-class Stallions just added to our stock gives buyers an unequalled selection.

Clydesdales Suffolks Percherons Shires Hackneys

Call early and be convinced of the superior quality of our horses and our very reasonable prices.

OVER TWENTY YEARS AT THE FRONT.

ALEX. GALBRAITH & SON,

JANESVILLE, WIS., AND BRANDON, MAN. JAS. SMITH, MANAGER MANITOBA BRANCH, BEAUBIER HOUSE, BRANDON

2,000 HORSES

FOR SALE: All weights, with prices to suit customers. Special rates on car-load lots. You will find it worth your while to write at once for prices to

J. H. SPENCER, Medicine Hat, Northwest Territory.

Ranch only 15 miles from Medicine Hat, and communications addressed to Bowell, N.-W.T. (5 miles from ranch), will receive attention. SALESMEN WANTED in every town in Manitoba and Northwest Territories. Say that you saw it in the "Advocate."

FOR SALE: DRAFT HORSES

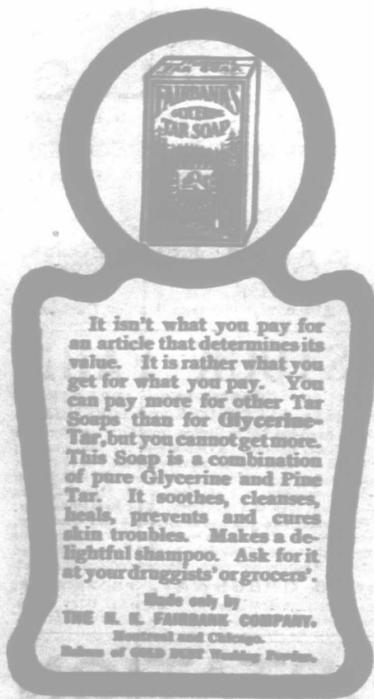
OF ALL AGES.

OWING to lack of range, we have decided to cut our herd of draft horses down to one-half and sell 2,000 head at greatly reduced prices. This great selection of mares, geldings and growthy youngsters of all ages represents the results of seventeen years of judicious mating to strictly high-class Percheron, English Shire, Clydesdale and Hackney sires. We can furnish high-grade brood mares and fillies with foal to imported and home-bred registered stallions, and have always on hand a large and first-class selection of registered and high-grade Percheron and English Shire stallions, also registered mares and fillies of same breeds. Correspondence solicited. Inspection invited.

LITTLE MISSOURI HORSE COMPANY,

W. G. CLARK, SUPT. GLADSTONE, NORTH DAKOTA.

In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE.



It isn't what you pay for an article that determines its value. It is rather what you get for what you pay. You can pay more for other Tar Soaps than for Glycerine-Tar, but you cannot get more. This Soap is a combination of pure Glycerine and Pine Tar. It soothes, cleanses, heals, prevents and cures skin troubles. Makes a delightful shampoo. Ask for it at your druggists' or grocers'.

Made only by
THE S. E. FAIRBANK COMPANY.
Montreal and Chicago.
Solems of GARDNER'S Washing Machines.

TORONTO ENGRAVING CO.
92 BAY ST
CUTS BY ALL PROCESSES
LIVE STOCK A SPECIALTY

\$2.69 Rain Coat worth \$5.00. SEND NO MONEY. Simply write us giving your name, address, nearest express office and we will send you the Express Agent \$2.69 and express charge and secure shipping as guaranteed. This is a genuine English military Raincoat, single breasted and made of fine quality, pea-powder, gilet grey waterproof cloth, cut in the latest pattern, velvet collar, dressy plain lining, double stitched and concealed seams, concealed pockets, silk-lined buttonholes and reinforced buttons. An easy fitting coat, well finished throughout. Will wear like iron. A perfect protection against wind, rain and wet and all their ills: Heavy Colds, Pneumonia, Consumption, Rheumatism, etc. No one exposed much to the weather can afford to be without one. Looks well, wears well, gives great comfort, and saves doctors' bills. We have only a few dozen of these coats. When they are gone there will be no more at this price. Lady's Waterproof, finer material, etc. extra. (Give length.) When cash is sent with order we forward coat postpaid.

JOHNSTON & CO., DEPT. 3320 TORONTO.

10 GOOD PRACTICAL Horse Salesmen Wanted
at once. Employment all summer if suited.

ALEX. GALBRAITH & SON, BRANDON, MAN.

FOR SALE. CLYDESDALE STALLION, EASTLAND PRIDE (2822)
Sired by imported L rd Armadale; dam Victoria Macneilare (2658); of excellent qualities and breeding. A bargain at \$1,000. Also fine Shorthorn bull calf, 8 months of age. Apply to
E. A. AUGUST, Bates P. O. Ry. stations: Carman, C.P.R., and Homewood, C.N.R.

Percheron Stallions FOR SALE.

One 3 1/2 years old, grey; good size, style and action; heavy, strong bone, and best of feet. One 2-year-old black grey, extra heavy bone; will make a large horse. Both are duly registered in American Percheron Association. Also one 19 months old, sire Standard bred; dam a registered Percheron; color bay, black points. A strong built colt, good range, style and action, best of bone and feet. All will be sold at about half prices asked by large breeders. Freight will be paid to any C. P. R. station in Manitoba or Northwest Territories.

H. F. Page, Mission City, B. C.

JOHN WISHART'S CLYDESDALE AND HACKNEYS
At PROSPER 1 1/2 miles from north of P. la P., can be seen Clydesdales and Hackneys, many of them winners at Winnipeg, Brandon and P. la P. Young stock of both sexes for sale.
PORTAGE LA PRAIRIE JOHN WISHART.

GOSSIP.

Mr. J. C. Pope, Regina, has recently imported from Ontario, a beautiful Ayrshire cow, Heather Belle 9831, and from Quebec, Castlehill, an Ayrshire bull of considerable good breeding and individual merit.

Mr. Jas. Walsham, of Portage la Prairie, is well known as an exhibitor of choice dairy bulls. At present, in Jerseys, he owns Brampton Gold Prince, bred by Bull & Sons, of Brampton, and sired by Brampton's Monarch (imp.), dam Princess of Brampton. This bull won the diploma at Ottawa, as a calf, in 1901. The following year, at Winnipeg, he also won the diploma. He is almost faultless in conformation, is a splendid handler, strong in constitution and beautifully marked. Another Jersey bull of note is Belvedere Signal, sire Signal of Belvedere, dam Satanela 2nd. This bull was bred by Mrs. Jones, of Brockville. He is a large, smooth animal, with good constitution and a getter of splendid milkers. In Ayrshires, Duke, sire Rob Brown of Barmoorhill, grand-sire Monarch (imp. in dam); dam Norval Rose, by Pride of Peel, is the only one kept. This young bull won six firsts as a calf. He is a splendid specimen of the Ayrshire breed.

HIGHLAND STOCK FARM.
At Clyde, Minn., near Utica and St. Charles, on the Chicago and N. W. Railways, is located Highland Stock Farm, where Clydesdale horses and Aberdeen-Angus cattle are bred, under the proprietorship of John R. Campbell. Sambo of Cityside, sire Paris 3rd, Canada's renowned champion; dam Barbara B., by Busuto, was one of the former stock bulls. Mr. Campbell is very careful when selecting sires as herd-headers, choosing only those likely to improve his herd. This herd has not often appeared in the show-ring, but when competing for honors in that way managed to secure a fair share. Busuto, the first Aberdeen-Angus bull owned by Mr. Campbell in the States, won in Chicago, in '82, grand sweepstakes over all beef breeds. He weighed 2,600 lbs. The present stock bull is Beauty's Eclipse 26474, sire Moon Eclipse, a winner at many State fairs, dam Wellington's Beauty, also a prizewinner and a producer of winners, her bull calf capturing first at Chicago, 1900. Many others of like merit are kept, which gives the Highland herd a prestige that counts. Correspondence solicited and inspection invited.

BOWNESS STOCK FARM.
The proprietor of Bowness Stock Farm, the Hon. W. Beresford, Calgary, Alta., has recently issued a neat, concise catalogue describing the extent and location of his farm, and the pedigrees of a few of his well-known Shorthorn herd. Bowness farm lies in the valley of the Bow River, having a river frontage of more than three miles, and comprising 2,500 acres of excellent farming and grazing land. There is considerable timber on the banks of the river, spruce, poplar and cottonwood predominating, so that the best of shelter is afforded the herd. Numerous clear springs flow from the hills near by, and grass is in abundance, so that the spot is exceedingly favorable for raising cattle of prime quality on an extensive scale. Over 200 acres are under irrigation, so that dry seasons are not to be feared. This herd at present numbers more than 225, the whole of which, excepting young calves, are registered in the Dominion Herdbook, and also a very large proportion in the American Registry. This herd are all either Scotch or Scotch-topped. Such families as the Orange Blossom, Rose of Sharon, Ruby, Beauty, Kirklevington and Golden Drop are all represented. In fact, it is hard to find a herd with equal breeding. The stock bulls have been described in a recent issue. Intending purchasers should write the proprietor, Box 25, Calgary.

TRUMAN'S PIONEER STUD
BRANDON, MAN., AND BUSHNELL, ILL.



24 YEARS IMPORTERS OF PURE-BRED Shires, Percherons, Suffolk and Hackney STALLIONS

A NEW SHIPMENT has arrived at Brandon, and can be now seen at McKay's Stable. We have HORSES with which we give genuine guarantee of breeding qualities.

OUR PRICES are such as will make it worth your while to communicate with us either for individual or company service.

EACH STALLION has been carefully inspected by a competent Veterinary before purchasing; hence we are able to guarantee our stock. We want to do business, and cannot afford to sell worn-out or old horses to the Canadian farmer. Then our reputation is at stake; this is something that should merit your consideration before you buy.

Weightman & Reid, Mgrs., BRANDON, MAN. J. G. Truman, Mgr., BUSHNELL, ILL.

Bargains in Imported Stallions
AT BRANDON, MANITOBA.

I have located permanently at Brandon, and I have brought from my Aurora, Illinois, stables, a very choice selection of

SHIRE AND PERCHERON STALLIONS

of the most popular breeding. All young and vigorous; every one passed by a competent Vet., and will be fully guaranteed. I never handle old second-hand or worn-out show horses. I am offering mine at living prices, on easy terms of credit to responsible buyers, or all-w liberal discount for cash.

Individual buyers or syndicates will save money by corresponding with me before paying the fancy prices at which inferior stallions are being sold by peddlers.

A few reliable Agents wanted at various points in Manitoba and the North-west Territories.

Address—

GEO. E. BROWN, BRANDON, MAN.

J. A. S. MACMILLAN
IMPORTER AND BREEDER OF

High-Class Stallions.

The new importation for the coming season comprises many winners.

Wares and Fillies Always for Sale.

Terms easy. Prices right. For full particulars apply
BOX 483, BRANDON, MAN.

Stallions may be seen at Macmillan's stable (late Douglas), 12th Street, Brandon.

Craigie Mains Clydesdale Stud.
A. & G. Mutch, Proprietors.

Leading Western Clydesdale breeders. Numerous prize-winners on hand. Prince Stanley 2143 for sale. Present stock horse, sure foal-getter. Stud colts and fillies of select breeding for sale; also first-class teams.

BROME GRASS SEED, in 500-lb. lots or over, 8 cents per lb., sacked. Cash to accompany order.

A. & G. MUTCH, LUMSDEN, ASSINIBOIA

In placing any advertisement on this page, kindly mention the FARMER'S ADVOCATE.

All Hands On Time

The second hand,
the minute hand,
the hour hand, run
in unison on an

ELGIN Watch

Perfect in construction; positive in performance. Every genuine Elgin has the word "Elgin" engraved on the works. Illustrated art booklet free.

ELGIN NATIONAL WATCH COMPANY, Elgin, Ill.



GOSSIP.

Mr. L. A. Bradley, of Portage Plains, has a choice lot of Tamworths, headed by Portage King and General Buller, winner of first every time shown at Winnipeg. General Buller was bred by Norman Blain, of St. George, Ont., and sired by Advance, dam Minnie F., by King George. He is a large, smooth pig, very even. Portage King was bred by Colwill Bros., Newcastle, Ont.; sire Napoleon, dam Newcastle Maid of Honor, also of Colwill Bros.' breeding. This young boar has ample size, is very smooth, and promises to make a good, useful stock boar. Grace Darling, bred by J. D. McGregor, Brandon, and sired by Red Ben, is a smooth sow of splendid size. Princess May, sire Sir Richard, dam Maggie, by Amber Jim 4th, is a large pig of extra quality and good Tam. conformation. Mr. Bradley has 26 Tamworths, all in thrifty condition, the young stock being sired by General Buller. Those desiring to purchase should look for ad., which appears in this issue, and correspond with or visit Mr. Bradley.

BURNBANK.

Six miles north of Elkhorn will be found the home of Geo. Allison, breeder of Shorthorn cattle and Leicester sheep. Although this herd is not so large as some, in numbers, it ranks high in quality. The present stock bull is Royalist, bred by John Miller & Sons, Brougham, Ont.; sire Royal Prince (imp.), dam Rose Hope 15th (imp.), by Musgrave. Royalist has a fine masculine head, good shoulders, an extra wide, deep-fleshed back and splendid loin. Prairie Flower, one of the matrons of this herd, was bred by J. & W. Russell, Richmond Hill, Ont. She was sired by Scarlet Velvet, dam Isabella 22nd, by Killerby (imp.). Prairie Flower is an unbeaten local prizewinner. She abounds in constitutional vigor, is of the low-set, blocky type and very smooth. Royal Princess 4th, another of Russell's breeding, by the same sire, and out of Royal Princess 3rd, by Stanley, is also a prizewinner of the same type. One of the choice heifers is Miss Ramsden 8th, sire Jubilee Chief, dam Miss Ramsden 7th, by Scarlet Velvet. This young heifer is likewise a prizewinner wherever shown. She is very smooth, low-set, with extra good hind quarters and well-sprung ribs. Royal Princess, another of Jubilee Chief's daughters, dam Royal Princess 4th, by Scarlet Velvet, is an extra deep, broad heifer. Royal Prince, sire Lakeview Chief, dam Royal Princess 4th, is a growthy, thick, deep young bull with splendid head, short legs, strong heart-girth and straight lines. A calf, eleven months old, by the same sire, and out of Prairie Flower, is of extra quality, being very strong in back and loin. This herd won herd prize and sweepstakes at Moosomin and Elkhorn for the last two years.

In sheep, over one hundred are kept, some of them pure-bred Leicesters. Lately, a fine bunch of four were brought up from Ontario, one of which is a ram of large size, deep and thick.

JOHN GARDHOUSE, HIGHFIELD P. O., ONT.

Breeder of **SHIRES SHORTHORNS** and **LEICESTERS**. Young stock for sale, both sexes. Scotch and Scotch-topped Shorthorns of such noted families as Imp. Rollas, Claret, Lovelys, Rosebuds, Blossoms, Circos, Roses, and other noted families. The Imp. Lancaster bull, Prince Louis - 33023 - (77486), heads the herd. Farm 3 1/2 miles from Weston station, G.T.R., and C.P.R., and 14 miles north-west of Toronto.

RED RIBBON STUD
Largest Importers and Breeders of
Shire Horses

in the Dominion,
including first-prize winner at Royal Agricultural Show in England, and winning more prizes at Industrial and other large shows than all others combined.

Stallions and mares all ages, home-bred and imported, always for sale. Over 50 to choose from.

MORRIS & WELLINGTON,
Fonthill P. O., Welland County, Ont.

DR. PAGE'S ENGLISH SPAVIN CURE



For the cure of Spavins, Ringbones, Curbs, Splints, Windgalls, Capped Hocks, Strains or Bruises, Thick Neck from Distemper, Ringworm on Cattle, and to remove all unnatural enlargements. This preparation (unlike others) acts by absorbing rather than blistering.

This is the only preparation in the world guaranteed to kill a Ringbone or any Spavin, or woeony refunded, and will not kill the hair. Manufactured by **DR. FREDRICK A. PAGE & SON, 7 AND 9 YORKSHIRE ROAD, LONDON, E. C.** Mailed to any address upon receipt of price, \$1.00. Canadian agents:

J. A. JOHNSTON & CO., DRUGGISTS, 171 KING STREET, EAST, TORONTO, ONT.

Thorncliffe Stock Farm

ROBERT DAVIES usually has on hand some fine specimens of Clydesdales, Hackneys, Jersey and Ayrshire Cattle, Yorkshire Pigs.

Correspondence solicited. Visitors always welcome at
THORNCLIFFE, TORONTO.

J. M. GARDHOUSE, WESTON P. O., ONT.
SHIRE AND CLYDE HORSES, SHORTHORN CATTLE, LEICESTER SHEEP.

One imp. 4-year-old Clyde stallion, half-brother to the champion Hiawatha, for sale. Also Clyde and Shire stud colts. Newham's Duke, the gold and silver medal Shire stallion, in service. Chief Ruler, bred by W. S. Marr, Uppermill, heads the herd. Imported and home-bred cattle for sale.
Farm, 15 miles from Toronto, Weston station, G. T. R. and C. P. R., telephone and telegraph offices.

BOOK REVIEW.

Any book reviewed in this department may be ordered through this office, at the price stated.

BACTERIA IN MILK.—Dairymen all over the country will be pleased to learn that H. W. Conn, Ph. D., the celebrated bacteriologist, has published a book on bacteria in milk. After carefully examining a copy received from the publishers, P. Blackiston's Sons & Co., we have no hesitancy in recommending the new book to every person who is interested in handling milk in any way. One or two chapters are perhaps somewhat technical, but the greater part of the work is devoted to the practical discussion of the relation of bacteria to dairy products, and the part they play in the causation of disease. The book contains some 300 pages, is strongly bound, clearly printed and profusely illustrated. Ordering through this office, it may be secured for \$1.25.

BRITISH COLUMBIA FARMS

Mild climate, the best dairy country in North America. No blizzards. No typhoons. No droughts. No hot winds. No summer frosts. No cloud-bursts. The heaviest crops per acre in Canada. We make this statement without fear of contradiction. Cool nights and good water. The best price for all kinds of farm produce. **THE CALIFORNIA OF CANADA**, with land at one-tenth the price.

Write for farm pamphlet to
THE SETTLERS' ASSOCIATION,
BOX 540 VANCOUVER, B. C.

Please refer to this page.

THE ONTARIO VETERINARY COLLEGE

(LIMITED),
TEMPERANCE ST., TORONTO, CANADA.

Affiliated with the University of Toronto.

Patrons: Governor-General of Canada, and Lieut. Governor of Ontario. Fee \$5.00 per session. Apply to **ANDREW SMITH, F.R.C.V.S., Principal, 12-B-Y-CM**

SPECIAL To Stock Raisers

500 Packages Given Free.

We will give a 35-cent package of cream for calves free to any person purchasing 50 lbs. of Day's Aromatic Stock Food; price, \$3. Send cash by P.O. note or express.

Ask your dealer, or write to
THE Day's Stock Food Co., TORONTO

IT SAVES TROUBLE and annoyance many times to have ABSORBINE

handy in case of a Bruise or Strain. This remedy is rapid to cure, pleasant to use, and Horse soon ready for work. No blister, no hair gone.

ABSORBINE removes any soft bunch from Animal or Mankind. \$2.00 per bottle, delivered or of regular dealers.

W. F. YOUNG, F. D. F., Springfield, Mass., LYMAN, SONS & CO., Montreal, Agents for Canada.

BAWDEN & McDONELL Exeter, Ont.

IMPORTERS OF
Clydesdale, Shire and Hackney Horses

are now offering several imp. Clydesdale, Shire and two Hackney stallions, prizewinners in England, Scotland, and Canada, and representing the best blood alive; also several choice Canadian-bred ones. These animals are all true to type, and possess substance, quality, style and action.

HORSEMEN! THE ONLY GENUINE IS

GOMBAULT'S CAUSTIC BALSAM.

The genuine without the signature of **The Lawrence-Williams Co.** Sole Importers for the U.S. & CANADA, CLEVELAND, O.

The Safest Best BLISTER ever used. Takes the place of all liniments for mild or severe action. Removes all Bunches or Blemishes from Horses and Cattle. SUPERSEDES ALL GAITHERY or FERING. Impossible to produce cure or benefit. Every bottle is warranted to give satisfaction. Price \$1.50 per bottle. Sold by Druggists, or sent by Express, charges paid, with full directions for its use. Send for free descriptive circular.

THE LAWRENCE-WILLIAMS CO., Toronto, Ont.

Sore Shoulders

sore neck, sore back, etc., resulting from collar, saddle or harness galls and chafing, and all forms of canker, callous, etc., are instantly relieved and cured with

Tuttle's Elixir.

Used and endorsed by Adams Express Company.

Dr. S. A. Tuttle, Webster, Vt., July 18, 1886.
Dear Sir:—I had a horse that had two hounds on his chest, caused by wearing a new collar. Less than one bottle of your Elixir cured it after six months' standing.

Cures also curb, splint, contracted cord, all forms of lameness and colic, distemper, pneumonia, etc.

TUTTLE'S FAMILY ELIXIR cures rheumatism, sprains, bruises, etc. Kills pain instantly. Our 10-page book, "Veterinary Experience," FREE.

Dr. S. A. TUTTLE, 66 Beverly St., Boston, Mass.

Beware of so-called Elixirs—some produce but Tuttle's avoids all blisters they offer only temporary relief if ear-
LYMAN, KNOX & CO., Agents, Montreal and Toronto, Canada.

OAKLAWN FARM.

Greatest Importing and Breeding Establishment in the World.

Famous Prize-Winning Stud of PERCHERONS and FRENCH COACHERS.

On hand upward of **500 HEAD.**

Four Large Importations in 1902, forming, with our home-breds,

The Choicest Collection Ever Assembled, including Four of the Six First-Prize winners at the great annual French Show of the Societe Hippique Percheronne in 1902. At the recent

INTERNATIONAL LIVE-STOCK EXPOSITION

at Chicago, the Oaklawn Percherons achieved distinguished honors. The Champion Stallion and every First-Prize winner (except one) in the regular stallion classes were imported by Dunham, Fletcher & Coleman.

Notwithstanding the superior quality of our horses our prices are lower than can be obtained elsewhere in America.

Catalogue sent on application.
DUNHAM, FLETCHER & COLEMAN, WAYNE, DU PAGE CO., ILLINOIS.

GEO. STEWART, Howick, Quebec,

Clydesdale Horses

has now on hand for sale 3 two-year-olds and 1 yearling stallion, carrying the blood of Hiawatha, Darnley, Lord Eskine, Prince of Wales and Time o' Day, combining size, style, quality and action. Also 1 five-year-old mare, with fifty foal. The best lot I ever imported. Write quick.

GEO. STEWART, Howick, Quebec.

FOR SALE: 6 CLYDESDALE STALLIONS

from 1 to 8 years old, good individuals, of most fashionable breeding and good breeders, and a few young mares. Come and see them and their produce. Also 3 young Shorthorn bulls. **I. DEVIET & SON, Burlington Junction Sta., on Freeman P. O. G. T. G. 1/2 mile from farm.**

CLYDESDALES

AYRSHIRES and POULTRY.

R. Ness & Sons, Howick, Que.

importers of Clyde, Percheron and Hackney stallions, Ayrshire cattle, and poultry, have for sale 5 Clyde stallions, sired by Baron's Pride, Sir Everitt, and Royal Carrick, 1 Percheron, and 1 Hackney, winners. Ayrshires of both sexes, and poultry.

In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE.

BELGIAN Stallions and Mares

IMPORTED LAST SEPTEMBER. THOROUGHLY ACCLIMATED.

The up-to-date drafter, big and medium weight, dark colors, short, straight back, no hair on legs, immense rumps, pony-built body. Not a shaggy lump of fat. A Klondyke in your stable. Honest value for honest money. Write, or better, come to



BARON DE CHAMPLouis, IMPORTER,
DANVILLE, QUEBEC.



ROBERT BEITH,
BOWMANVILLE, ONT.,

IMPORTER AND BREEDER OF

Clydesdale AND Hackney Horses

Is offering for sale a number of choicely-bred Clydesdales and Hackney stallions; also a number of Hackney mares. The Clydesdales are sired by the noted horses, Prince of Albion, King of the Roses, Lord Stewart and The Prior.

JOHN BRIGHT, MYRTLE, ONTARIO,

BREEDER OF

Clydesdales and Shorthorns,



Is now offering for sale 8 stallions, sired by such horses as Prince Patrick (imp.), Erskine's Pride (imp.), Sir Erskine (imp.), Royal Laurence (imp.). Also a number of mares and fillies. Shorthorns of all ages, of such families as Miss Ramsden, Clementina, Strawberry, Crimson Flower, Village Girl, Stamford, Rachel, etc.

Myrtle Station, G. T. R. and C. P. R.
Farm connected by long-distance telephone.

NEW IMPORTATION ARRIVED FEBRUARY 20, 1903

ANOTHER LOT OF

First-class Clydesdale Stallions

has just been added to our stock, giving buyers an unequalled selection. These horses are sired by such sires as Baron's Pride, Prince Romeo, Prince Thomas, and other noted sires. They have superior quality, and are for sale at very reasonable prices. Persons desiring to purchase should write or call on

WM. COLQUHOUN, Mitchell P. O and G. T. R. Station, Ont.

Imp. Clydesdales and Shorthorns



Messrs. Smith & Richardson,
COLUMBUS, ONT..

Importers and breeders of Clydesdale horses and Shorthorn cattle, are now offering 14 stallions, 9 of them imported, including brothers of the world-renowned Baron's Pride, Hiawatha, and Royal Cairnton; also 13 mares bred from imported stock. Shorthorns, imported and home-bred, all ages. Stations:

Oshawa & Brooklin, G. T. R., Myrtle, C. P. R.

Long-distance Telephone, Columbus. Telegraph, Brooklin.



International Importing Barn, Sarnia, Ontario.

J. B. HOGATE, PROPRIETOR.

IMPORTER OF

Clydesdale and Shire Stallions, and Spanish Jacks.



My third importation within the last fourteen months arrived Sept. 4th.

I select every one myself, and it is conceded both in Europe and America that I do get the best ones that cross the Atlantic to America. My stallions are sired by the leading sires of Scotland; ages from two to four years. The Jacks are direct from Spain, and registered, two to four years old, 14 to 15 hands high. I pay cash for my stock. I buy where I can get the best. Write for particulars. Will save you money. Mention this paper when you write.

H. H. CALISTER, Manager and Salesman.

In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE.

GOSSIP.

L. J. C. Bull, late of the firm of B. H. Bull & Sons, noted breeders of Jersey cattle, Brampton, Ont., has taken up his residence in the Arcola District, Assa., where he has established a herd of Jersey cattle and Yorkshire hogs. A shipment of stock was recently landed from Ontario in good shape.

Mr. Thos. Dale, of Portage Plains, has a very nice herd of fifteen Shorthorns. His stock bull, Young Lyndhurst, sire Lyndhurst, out of Gaitly 5th, is a strong-backed animal, with a good masculine head, full quarters, and a good handler. Mr. Dale also has some good Berkshire sows, and over 75 pure-bred barred Rock fowls.

Donald Macfarlane, of Oak Lake, breeder of Aberdeen-Angus cattle, has a very choice herd, numbering 15 cows, several yearling heifers, 5 growthy calves, 2 young bulls and the stock bull, Barney, a low-set, deep, thick, well-fleshed fellow, rising three years. This herd is one that any beef type fancier would admire. The standard of uniformity, depth, constitution and general handling qualities possessed by this herd is very high.

About ten miles north of Portage la Prairie is located the farm of Carruth & Brown, Clydesdale breeders. At present, their three prizewinning fillies are in splendid form. Lady Pandora, winner of first in her two-year-old form at Winnipeg last year, has developed wonderfully. Chantress and Belle, winners, respectively, of second place in three-year-old and yearling classes at Winnipeg last July, have also wintered well. The syndicate horse, Prince of Eden Grove, is at home here. Last year he won first for Draft stallion at the Portage show, first for stallion and three of his get, and diploma for best horse at show. J. Wishart's colt, Prince of Prospect, that won first at Winnipeg, Brandon and Portage last year, was sired by Prince of Eden Grove. This useful sire is in splendid form for another season's work. His former record is such that his owners may look for big patronage.

OAK GROVE HERD.

In writing us, lately, David Clark, of Bottineau, N. D., states as follows: "Things are running along smoothly. Our Shorthorns are in fine thrifty condition. The bull purchased from Mr. Greenway is, without any boasting, a grand good one, and his calves are coming strong and of good quality. We are pretty well sold out of young bulls, except a few, which we have reserved for a combination sale to be held at Fargo next June. We are also holding a few females for the same sale. All our cattle, about 90 head, are in fine shape. We expect nearly fifty calves this spring. Cattle here are in fairly good demand, especially milk cows. The reading matter of your paper is good, and the cuts of stock and farm scenes very clear."

CRAIGIE MAINS.

Messrs. A. & G. Mutch, recently purchased from Mr. Jas. I. Davidson, Balsam, Ont., the following Shorthorns: Mayflower 6th = 39318, a choice individual descended from the herd of Syme, of Redkirk, Scotland. She is with calf to a Cruickshank Gloster bull. The other two are Golden Drops—the family that made Campbell, of Kinellar, so popular. Several of Ontario's best breeders to-day are using stock bulls of this rich blood. W. D. Flatt, of Hamilton, imported one of the same blood, Golden Fame, which he later sold for \$1,500.00. With these three, a Lavender and a Ury, from John Turner, Calgary, and the four heifers of Hon. John Dryden's breeding, described in February 20th issue, Messrs. Mutch have laid a strong foundation for a high-class Shorthorn herd.

Lump Jaw Spavin Curb Splint Sweeny

Cure Them
Lump Jaw in cattle, Fistula and Foul Evil in horses, and almost every blemish that a horse can have, even bad Bone Spavin, Ringbone and Knee Sprung, can be readily cured by anybody. We want to tell you how to do it, prove that you can do it, and guarantee you success in doing it. Two big booklets explaining everything sent free. Write now.
Shelton Bros., Chemists,
45 Front St., West,
Toronto, Ont.

HOLWELL MANOR FARM

FOR SALE:

Two Scotch Collie bitches, one 8 mos., the other 15 mos. old.

D. G. GANTON,
ELMVALE, ONT.

J. Richards, Bideford, P. E. Island,

Importer and breeder of Aberdeen-Angus Cattle, Clydesdale Horses, Shropshire Sheep, and Shetland Ponies. Stock always for sale, on

HIGH PARK STOCK FARM

GALLOWAY CATTLE.

6 choice young bulls, from 10 months to 2 years old, for sale. Prices right. Come and see them.
Shaw & Marston, P. O. Box 294, Brantford, Ont.
Breeders of Galloway cattle.

ABERDEEN - ANGUS.

For Sale: One two-year-old bull and one yearling bull, sired by Laird of Tweedhill. Will sell right.

W. HALL, Washington P. O.
Drumbo Station.

SALE! INGLESIDE HEREFORDS.

Young bulls, cows and heifers of most up-to-date type and breeding. If you want good Herefords at good-value prices, send for illustrated catalogue, and state requirements. Also send for bred Hereford cows and heifers.
H. D. SMITH,
Compton, Que.

R. & S. NICHOLSON
Sylvan P. O. Parkhill Station, Ont.

Importers and breeders of

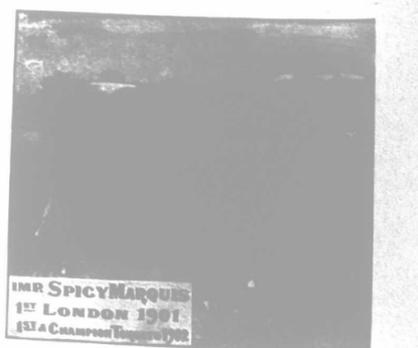
SHORTHORNS

Have for sale:

13 IMPORTED HEIFERS,
7 YEARLING BULLS,
20 HEIFERS (choice).

Home-bred herd composed of Nonpareils, Minas, Clementinas, Cruickshank Lovelys, Shethin Rosemarys, A. M. Gordon's Estelles, Miss Symes, etc.

TROUT CREEK SHORTHORNS



JAS. SMITH, Manager, Millgrove, Ont.
W. D. FLATT, 378 Hess St. South, Hamilton, Ont.

Shorthorns, Clydesdales, Yorkshires

I am now offering the bull, Count Amaranth, imp. in dam, 2 years old, and young bulls 10 months old; heifers, various ages; Clydesdales, American and Canadian registered; and Yorkshires, both sexes and all ages.

A. E. HOSKIN, SPRINGVALE FARM,
COBourg STA. & P.O.

NO HUMBUG. Three in One.
Swine V. Stock Marker and Calf Debarker. Stops swine from rooting. Makes 48 different ear marks. Extracts Horns. Price \$1.50. Send \$1 for trial. If 15 cents, send balance. Paid May 6, 1902. Hog and Calf Marker only 75c.
FARMER BRIGHTON, FAIRFIELD, IOWA.

ESTABLISHED 50 YEARS. **Ye Olde Firme of Heintzman & Co.** ESTABLISHED 50 YEARS.

HERE IS A MAIL-ORDER OPPORTUNITY IN

Bargain Organs

CHOICE OF 14 ORGANS AT SENSATIONAL PRICES.

THIS LIST is prepared especially for buyers out of town. We have established a remarkable business in organs and pianos through the mails. Our customers stretch from ocean to ocean. Completest satisfaction is guaranteed. We willingly refund money if instruments are not just as we describe them. Here is a list of 14 organs, all carefully overhauled at our own works before offered for sale. Respond quickly and secure good choice.

Thomas Organ. Woodstock, Ont.: Walnut piano case, handsome veneered marquetry panels, 6 octaves, 13 stops, including vox humana stop, 5 sets of reeds and sub-bass set, treble and bass couplers, grand organ and knee swell. This is an exceptionally fine organ, and has been used less than three months. Regular price, \$145; special price.....\$92.50

Doherty Organ: Walnut piano case, extra handsome carved panels, 13 stops, 6 octaves, 5 sets of reeds, treble and bass couplers, grand organ and knee swell. This is a very fine parlor organ, and has been used less than four months. Regular price \$140; special price.....\$99.50

Thomas Organ: Chapel case, suitable for Sunday School or small Church, with mouse-proof pedals, 13 stops, 5 sets of reeds. Used less than three months. Regular price, \$95; special.....\$61.00

Dominion Organ: High back, nicely-panelled case, 5 octaves, 11 stops, 5 sets of reeds and sub-bass, octave coupler and grand organ and knee swell. Regular price, \$145; special.....\$97.00

Dominion Organ: Nicely panelled, walnut case, with 5 octaves, 13 stops, 7 sets of reeds, very suitable for Sunday School or small Church, octave coupler, grand organ and knee swell. Regular price, \$125; special price.....\$85.00

Dominion Organ: High back, panelled walnut case, 5 octaves, 10 stops, 4 sets of reeds, octave coupler, grand organ and knee swell; a nice parlor organ. Regular price, \$125; special.....\$85.00

Dominion Organ: High back, panelled case, 5 octaves, 10 stops, 3 sets of reeds and sub-bass set, octave coupler and knee swell. Regular price, \$125; special.....\$81.00

Thomas Organ: High back, 5 octaves, 11 stops, 4 sets of reeds, treble and bass couplers, grand organ and knee swell. Regular price, \$115; special.....\$77.00

James & Co. Organ: High back, 5 octaves, 10 stops, 4 sets of reeds, bass and treble coupler. Regular price, \$115; special price.....\$75.00

Kilrour Organ: High back, 5 octaves, 11 stops, 4 sets of reeds, treble and bass couplers, grand organ and knee swell. Regular price, \$110; special price \$73.00

Dominion Organ: High back, 5 octaves, 4 sets of reeds, octave coupler, 8 stops, nicely-panelled case and grand organ and knee swell; good parlor organ. Regular price, \$115; special.....\$71.00

Powell Organ: High back, 9 stops, 5 octaves, 4 sets of reeds, and knee swell; a very handsome case. Regular price, \$95; special price.....\$60.00

Thomas Organ: High back, 5 octaves, 4 sets of reeds, 9 stops, grand organ and knee swell. Regular price, \$85; special price.....\$59.00

Karn Organ: Medium high back, 5 octaves, 9 stops, 4 sets of reeds, octave coupler, grand organ and knee swell. Regular price, \$85; special price.....\$57.00

LITTLE PRICES. PAYMENTS TO SUIT CUSTOMERS.

YE OLDE FIRME OF HEINTZMAN & CO., 115-117 KING STREET WEST, TORONTO.

PROVAN'S PATENT REVERSIBLE Carriers, Fork and Slings

FOR ROUND IRON, WOOD OR ANGLE STEEL TRACKS.

Have now become a standard of excellence with the farmers of Canada and the United States. At the World's Fair, Chicago, 1893, the only medal and diplomas given on hay carriers, forks and slings was awarded to us on these implements. Following is a copy of the judges' award: AWARD.—"For open trip hook to receive the sling; automatic clutch, adjustable for size of load desired; ingenious design of stop-block, which enables perfect control of carriage; no springs required for locking car, which has motion in all directions; compact form of fork, which can be tripped in any position; the car is reversible and of double action; for novelty, ingenuity and usefulness, excellence of material and construction." Correspondence solicited. Manufactured by

JAMES W. PROVAN, Special discount for cash. on OSHEWA, ONT., CAN.



TRADE NOTES.

TWENTIETH CENTURY HARVESTING.—We have received from the McCormick Division, International Harvester Co., Chicago, Ill., a copy of their 1903 booklet, in which appears a beautifully illustrated description of the modern "Header" for use in the world's big harvest fields. It is an artistic as well as a useful production, describing up-to-date machinery of the highest class. If interested in the advances being made in this respect—and who is not?—drop a post card for a copy of the booklet to above address.

THE ONTARIO WIND ENGINE AND PUMP CO. are favored with another order from South America for one of their Airmotors, embracing a complete outfit, including tanks, etc. This is for Guasco, Peru, and is anticipated to be the beginning of the trade in that quarter of the world. There is no better way of advertising Canada all over the earth than the export of her goods.

THE DANDY WINDMILL.—Intending purchasers of windmills would do well to study the advantageous features of the "Dandy," manufactured by the Woodstock Wind Motor Company. It has graphite bearings, and operates with commendable ease and safety under all conditions. Even in storms, it may be depended upon to thoroughly control itself. The firm also makes grinders, pumps, water tanks, drinking basins and saw benches, all of which will be found reliable in design and construction.

THE KIND OF SEEDS THAT YIELD.—For nearly half a century Ferry's seeds have been known, until farmer and gardener alike have learned to depend upon their wonderfully reliable, growing and yielding qualities. It is better to pay a little more for the seed and be assured of a great deal more at the harvest by sowing Ferry's seeds. The Seed Annual, which is sent free, post-paid, will be found unusually interesting and instructive. Write for it to-day. Address D. M. Ferry & Co., Windsor, Ont.

Finda Caustic Balsam to be Reliable.
Antigonish, N.S., April 30, 1902.
The Lawrence-Williams Co., Cleveland, O.: I can say that I have for the past three years been a user of GOMBAULT'S CAUSTIC BALSAM, and have found it to be all that is claimed for it, and have in a great many instances recommended its use to others.—R. D. KIRK.

Expectations Realized.
Lititz, Pa., March 22, 1898.
Mr. W. F. Young, Springfield, Mass.: Dear Sir,—I am very well satisfied with your Absorbine, which did exactly what you said it would.
Yours respectfully,
JACOB BIEDINGER.

GOSSIP.

In this issue, we call attention to the advertisement of J. Crouch & Son, proprietors La Fayette Stock Farm, La Fayette, Indiana. This is one of the oldest importing firms in the country. They import all breeds of draft as well as the German Coach stallions. This firm have imported 359 head of stallions in the last 15 months, and have 105 head now bought in Europe, which will be in their barns by April 1st. The German horse is a producer of high-class horses, and the horses of Crouch & Son won first prizes at all the leading fairs and horse shows in 1902. There are few farms in America that can show as many high-class stallions, both Coach and draft, and prices are as low as any reliable firm can make them. Messrs. Crouch & Son give guarantees with all their stock, and make terms satisfactory to buyers. La Fayette, Ind., is 249 miles south-west of Detroit, on main line of Wabash Ry.



BABY'S OWN SOAP

used by particular people both young and old. Keeps the skin soft, clear and white.

No other Soap is just as Good. ALBERT TOILET SOAP CO., MRS. MONTREAL

ROYAL YEAST CAKES

MOST PERFECT MADE.

AWARDED HIGHEST HONORS WORLD'S COLUMBIAN EXPOSITION

E. W. GILLETT COMPANY LIMITED
TORONTO, ONT.

The "STAY THERE"
Aluminum Ear Markers
see the best. Being made of aluminum they are lighter, lighter, stronger and more durable than any other. It is any part of the ear. Nothing to catch on feed trough or other obstacle. Your name, address and any series of numbers on each tag. Sample tags, catalogue and prices mailed free. Ask for them. Address **WILCOX & HARVEY MFG. CO., 194 Lake St., Chicago, Ill.**

JOHN DRYDEN & SON,
BROOKLIN, ONTARIO,
MEMBERS OF CRUIKSHANK SHORTHORNS AND CHOICE SHROPSHIRE SHEEP.
Five choice young CRUIKSHANK bulls. Straight, smooth, low-down and of show-yard type. Visitors welcome.

ROSEVALE SHORTHORNS.
Herd comprises Augustus, Polyanthus, Crimson Flowers, Miss, Strawberys and Lavinia. For sale, both sexes, the get of Imp. George Haydon Duke, Imp. Baron's Heir, Imp. Golden Able and Imp. Golden Conqueror. on W. J. Shean & Co., Owen Sound P. O. & Sta.

GRANDVIEW SHORTHORNS
Are made up of Floras, Meadowsweet, Mary Booths and Egan Duchesses. For sale, 3 bulls, extra nice, thick animals, sired by Fergus Chief, Royal Beau and Golden Count; also a few females. on J. H. Black & Son, Allanford P. O. & Station.

H. K. FAIRBAIRN
ROSE COTTAGE,
Thedford P. O. and Station.
One bull 18 months old, 10 cows, 3 yearling heifers, 1 two-year-old in calf, 4 bull calves, 3 heifers, all the get of Royal Prince—31241—.

Lakeview Shorthorns. Herd represented by such noted families as Stamfords, Minn, Marr Floras, Crimson Flowers, Village Girls, Eucan Lassies, and Lavinia. Some yearling and two-year-old heifers for sale. on James Bowen Strathclairn P.O., Meaford Sta.

CHOICE SCOTCH SHORTHORNS.
FOR SALE—Four bulls, from 8 to 15 months old, by Golden Robe (got in quarantine); also a few heifers, a choice lot, and prices right. Address, **W. G. HOWDEN,** Columbus P. O. Myrtle, C. P. R. and G. T. R. on



GOSSIP.

Messrs. E. & C. Parkinson, Thornbury, Ont., write: "The Beaver Valley herd of Shorthorns were never in better condition; have wintered well. The crop of young calves are an exceptionally uniform lot, full of quality, with plenty of size. This season, the demand has been good, our sales numerous, and prices very satisfactory. Still could spare some extra choice yearling and two-year-old heifers, reds and roans; also, one two-year-old bull, dark red, got by Diamond Jubilee (imp.); also, one yearling bull. Prices right. Call and see them, or write us.

Mr. Arthur Johnston, of Greenwood, Ont., writes, in changing his advertisement, to say that the Greenwood herd of Shorthorns is in excellent condition. The young things, in particular, are looking their very best. We still have six splendid young bulls, sired by imported bulls and out of imported dams of the very finest Scotch breeding. We also have five very fine young bulls, out of first-class dams and by imported sires. We still have a very excellent lot of heifers, from imported Scotch cows and by imported sires, as well as capital heifers, bred from cows of the very nicest pedigrees, and sired by imported bulls of outstanding merit and the richest breeding. We are selling at the lowest living prices to make room. Of recent sales, five go to points in the United States and six to Canadian destinations. The demand is good and prices fair.

IMPORTANT SALE OF IMPORTED SHORTHORNS COMING.

Among stockmen throughout the Dominion great interest will center in the announcement, in our advertising columns, that on May 13th there will be sold at auction in the village of Markham, Ont., the entire herds of 45 head of imported Scotch Shorthorns, belonging to Messrs. Geo. Isaac, of Boman-ton, Ont., and John Isaac, of Markham, Ont. Not for many years has such an opportunity offered for the selection of foundation stock for a herd fresh from the fountain-head, and in view of the quarantine regulations now in operation, it is certain that not for years to come will so many imported cattle again be offered in one sale. Messrs. Isaac has enjoyed special advantages in securing these cattle, having relatives in the business in Aberdeenshire who have had a lifelong training in the breeding of Shorthorns of the approved modern type, and being thoroughly acquainted with the best Scotch breeders and herds, have special facilities for securing stock that fills the bill for this country and for the times. The animals are all young and are of the blocky, thick-set, deep-fleshed type, and most of the females of breeding age have been bred to high-class bulls in Scotland or to first-class imported bulls of the same type here. The sale has been fixed at a time that should suit buyers, the spring seeding and the season for stable-feeding being practically over and the pastures nearly if not quite ready to turn into. It will be a rare opportunity for young breeders to secure a foundation for a family of up-to-date character, and there are few breeders of any standing whose herds would not be helped by the introduction of new, fresh blood of the class contained in this offering. The location chosen for this sale is convenient and is in the center of one of the best districts in the Dominion for high-class Shorthorn herds. Markham and Pickering adjoining may be said to have been the pioneer home and nursery of Scotch Shorthorns in Canada, and has proven a congenial breeding ground for them for 40 years or more. Mr. Geo. Isaac having sold his farm and Mr. John Isaac rented his, they have nowhere to keep these cattle and have resolved on a dispersal sale, which will be absolute and unreserved. Let every one who feels an interest in this sale apply in good time for the catalogue, and arrange his plans for an outing on the day of this sale. Further notes of this offering may be looked for in next issue.



3 FEEDS FOR ONE CENT

WALTON, KANSAS.

International Stock Food Co.
Gentlemen:—I would like some more "International Stock Food." Have been feeding and selling your goods for more than two years. I am a large feeder of hogs, breeding recorded Poland-Chinas. Have a large trade. Meet all the breeders of the State, and have recommended the use of "International Stock Food" whenever the opportunity has offered.
I have shown hogs at the Fairs in the State for two years. Have taken 87 prizes in the past two years. Before using your Food I never took a prize. Since using it I have taken a larger amount of them than any other exhibitor with whom I competed. I am now fitting a herd for this Fall's show and want some more of your Food. Yours truly, JOHN D. MARSHALL.

"We will pay you \$1000 cash to prove that our testimonials are not genuine."

Sold on a "Spot Cash Guarantee" By over 40,000 Dealers.

"INTERNATIONAL STOCK FOOD" **3 FEEDS FOR ONE CENT** is Prepared from Roots, Herbs, Seeds and Barks and won the Highest Medal at Paris Exposition in 1900 as a high-class vegetable, medicinal preparation to be fed to stock in small amounts as an addition to the regular feed. It is a Great Aid in Growing or Fattening stock because it increases the appetite and Aids Digestion and Assimilation so that each animal obtains more nutrition from the grain eaten. We positively guarantee that its use will make you extra money over the usual Plan of Growing and Fattening stock. "International Stock Food" can be fed in perfect safety to Horses, Cattle, Sheep, Hogs, Colts, Calves, Lambs or Pigs. It is Absolutely Harmless even if taken into the Human System. You insist on eating medicinal ingredients with your Own food at every meal. Salt is a stomach tonic and worm medicine, Pepper is a powerful stimulating tonic, Mustard is a remedy for dyspepsia, Vinegar is a diuretic. You eat these medicinal ingredients almost with every mouthful of your Food, and it is proven that these condiments promote health and strength for people and improve their digestion. "International Stock Food" contains pure vegetable medicinal ingredients that are just as safe and as necessary an addition to the regular feed of your stock if you desire to keep them in the best possible condition. "International Stock Food" is endorsed by every High Class Farm Paper. It purifies the blood, stimulates and permanently strengthens the entire system so that disease is prevented or cured. "International Stock Food" is sold on a "Spot Cash Guarantee" by Forty Thousand Dealers throughout the World. **3 FEEDS FOR ONE CENT** Your Money will be Promptly Refunded in Any case of Failure. It will make your Pigs or Hogs grow Amazingly and has the largest sale in the World for curing or preventing Hog Disease. **3 FEEDS FOR ONE CENT** Beware of the many Cheap and Inferior Imitations! No Chemist can separate all the different powdered Roots, Herbs, Barks and Seeds that we use. Any One claiming to do so must be an Ignoramus or Fabulist.

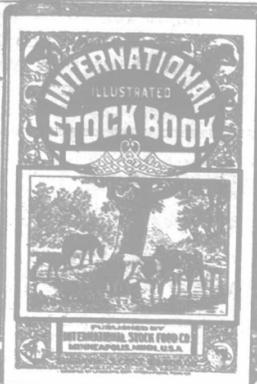
A \$3000.00 STOCK BOOK FREE

IT CONTAINS 183 LARGE ENGRAVINGS OF HORSES, CATTLE, SHEEP, POULTRY, ETC.

The Cover of this Book is a Beautiful Live Stock Picture **3 FEEDS FOR ONE CENT** Printed in Six Brilliant Colors. Book is 6 1/2 by 9 1/2. See engraving for greatly reduced design of cover. It cost us \$2000 to have our Artists and Engravers make these life size Engravings. This Book contains a Finely Illustrated Veterinary Department that will Save You Hundreds of Dollars. It describes common Diseases, and tells how to treat them. It also gives Description, History and Illustrations of the Different Breeds of Horses, Cattle, Sheep, Goats, Hogs and Poultry. It contains testimonials, and Life Engravings of many very noted Animals. The Editor of This Paper Will Tell You That You Ought To Have This Book in Your Library For Reference.

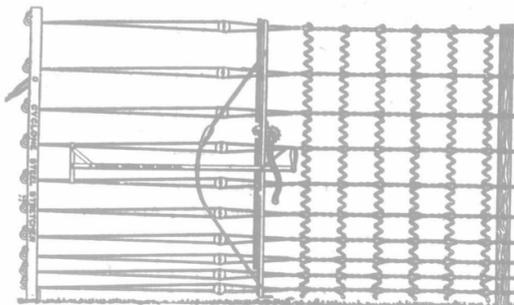
\$10.00 CASH, we will send you, **IF BOOK IS NOT AS STATED.**
This Book Mailed Free, Postage Prepaid, if You Write Us (letter or postal) and Answer These 3 Questions:
1st.—Name This Paper. 2d.—How Much Stock Have You?
Write us today for book.

Largest Stock Food Factory in the World. Capital Paid in, \$1,000,000. We Occupy 62,000 Feet of Floor Space. **International Stock Food Co.,** MINNEAPOLIS, MINN., U. S. A. We employ over 300 people and have Hundreds of Thousands of Testimonials from Farmers and Stockmen.



TEST 3 FEEDS FOR ONE CENT ENTIRELY AT OUR RISK

THE CYCLONE SWEEPS THEM ALL.



Fence Weaving Machinery.
Lawn and Cemetery Fence.
Wire Wholesale and Retail.

Cyclone Woven Wire Fence Co., LIMITED, TORONTO, - ONT.
Write for circulars. om

NOT ONE MACHINE HAS BEEN RETURNED.



WE have been sending out our Sewing Machines for Free Trial for nearly two years. They have gone to every part of Canada, from Prince Edward Island to British Columbia, without one dollar being sent in advance. Not one of these machines has ever been returned. Every one sent out has proved satisfactory, and has been retained and paid for. Our booklet contains 4 pages of letters received from those who have tried them.
We take no risk in sending out our sewing machines on Free Trial. They are better in all essential features than any of the high-priced machines, and they cost only about half as much. We have 8 styles, varying in price from \$17.50 to \$35. For \$21.50 we furnish a machine guaranteed for 20 years, and with more hardened and tempered parts than any of the high-priced machines. Let us send you one on Free Trial, and then test it and compare it with the high-priced machines in your own home. Our little pamphlet, "All About Sewing Machines," explains their important parts and tells how to test them. It will be sent to any address on application.

WINDSOR SUPPLY CO., Windsor, Ont.

Joseph Rodgers & Sons Limited, SHEFFIELD, ENGLAND.
Please see that this EXACT MARK is on each blade. om
JAMES HUTTON & CO., MONTREAL, SOLE AGENTS IN CANADA.

W. G. PETTIT & SONS

FREEMAN, ONT., CAN., Importers and breeders of **Scotch Shorthorns** and SHROPSHIRE SHEEP, make special offering for January and February.
2 imported bulls coming 2 years old.
4 bull calves, from 2 to 12 months old, from imported sire and dam.
6 bulls, 10 mos. to 2 yrs., by Imp. sire, Imp. and home-bred cows and heifers of all ages.
Our entire flock of Shropshire sheep, 75 head. om

FOR SALE: 27 Head of Imported SHORTHORNS

just landed from quarantine. Also one Clydesdale stallion. **JOHN ISAAC,** om Markham, Ont.

SCOTCH SHORTHORNS FOR SALE. 2 imported bulls; 2 from imp sire and dam; 2 home bred. Females of all ages and home bred. **ALEX. BURNS,** om Rockwood P. O. and Sta., G. T. E.

JAS. GIBB, SUNNYSIDE STOCK FARM, BROOKSIDE, ONT., om BREKFER OF **SHORTHORN CATTLE.** Stock for sale.

SHORTHORN CATTLE and Oxford Down she p. head of herd. Imp. Prince Homer at present offering: Young bulls and heifers from imported and home-bred cows; also a choice lot of young rams and ewes from imported sire. **JAMES TOLTON & SON, Walkerton, Ont.** Farm 3 1/2 miles west of Walkerton Station. om

SHORTHORNS. Imp. Christopher = 28859 = heads herd. A few choice young cows, heifers and bulls for sale, of milking strain. om **A. M. Shaver,** HAMILTON Sta. Ancaster P. O., Ont.

HAWTHORN HERD OF Deep Milking Shorthorns. **FOR SALE:** Four young bulls, from 8 to 21 months old, from AI dairy cows. Good ones. om **WM. GRAINGER & SON,** Lonsdale, Ont.

Greengrove Shorthorns Number 35 head families. For sale: Several young bulls, by Wanderer's Last, Imp. Fitz Stephen and Freebooter. Females of all ages. om **W. G. MILLSON,** Goring P. O., Markdale Station.

In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE.

WHAT THE NATIONAL WILL DO.



NATIONAL

It will increase the yield of butter about 1 lb. per week, and about 30 to 60 lbs. per year, and will pay 8% on its cost price annually with one cow, and pay for itself in one year with 12 to 15 cows.

It will be placed on trial beside any other Cream Separator and prove to be superior in construction for convenience, easy operating, cleaning, close skimming, quality of cream and butter, style, fine finish and lasting service.

The only Cream Separator having its bowl and all parts made and finished in one shop in Canada under the supervision of the best Cream Separator experts obtainable.

The bowl is not filled with innumerable complicated parts to adjust and wash every time it is used. It has no stable-tainted, enamelled casing into which the milk and cream is discharged, that requires hot water at the barn to wash it every time it is used.

The National is designed for convenience and to overcome every objectionable feature found in other Cream Separators. A sample machine sent for a free trial to prove all that is claimed for the National.

NATIONAL No. 1A.
Capacity, 450 to 500 lbs. per hour.

NATIONAL No. 1.
Capacity, 330 to 350 lbs. per hour.

NATIONAL B.
Capacity, 250 lbs. per hour.

Give the National a trial. Send for particulars to any of the following general agencies:

The CREAMERY SUPPLY CO., Guelph, for South-western Ontario.
The T. C. ROGERS CO., Guelph, for Ontario North and East.
JOS. A. MERRICK, Winnipeg, Man., for Manitoba and N.-W. T.
JOHN A. ROBERTSON, 108 Union Avenue, Montreal, Quebec.

The Raymond Mfg. Co. of Guelph, LIMITED.
GUELPH, ONT.

IMPORTING CATTLE.

Parties wanting pure-bred cattle should correspond with me. Will attend to shipping first boat for St. Lawrence River, care on board and in quarantine. Address at once, care Donaldson Bros., 63 B. St. St., Glasgow, Scotland. om JAS. BODEN, Mgr. R. Reford's "Tredinnock Stock Farm."

PINE GROVE SHORTHORNS AND SHROPSHIRE.

Our herd comprises over 150 females, including our last importation of 30 head, all of the most esteemed strains. Of Shropshires, we offer a few choice rams, also high-class ewes bred to first-class rams. Address om

W. C. EDWARDS & CO.,
Rockland, Ontario.

VALLEY HOME STOCK FARM
SCOTCH SHORTHORNS Choice young bulls and heifers for sale from imported and home-bred cows.
AND BERKSHIRE SWINE. Also some young Berkshires.
S. J. PHARSON & SON, om
C. P. R. Station and Telegraph Office. MEADOWVALE P. O.

SHORTHORNS

WE ARE OFFERING FOR SALE a grand lot of young imported Scotch cows and heifers with calves at foot or safely in calf to the best imported bull obtainable.

Herd Numbers 150 Head.
Send for New Catalogue.

VISITORS WELCOME, AND CORRESPONDENCE PROMPTLY ATTENDED TO.
TELEGRAPH OR TELEPHONE.

H. CARGILL & SON,

Also have a choice lot of Oxford Down Sheep, either sex, at reasonable prices. om Cargill, Ontario, Canada.

12 SHORTHORN BULLS 12

First-class Scotch Breeding.

CHOICE QUALITY. LOW PRICES.

WRITE FOR CATALOGUE. om H. SMITH, EXETER, ONTARIO. Farm adjoins Exeter, on the G. T. R., 30 miles north London.

GOSSIP.

The dispersion sale of the Shorthorn herd of C. C. Bigler & Sons at Des Moines, Iowa, on March 9th and 10th, though the cattle were in very thin condition—indeed, in about the worst possible condition for selling—made an average of \$211 for 320 head, a result which demonstrates strong confidence in the outlook for the breed. The imported bull, Imp. Merry Hampton, looking much better than the females, in his six-year-old form, brought \$2,500, being bought by McLaughlin & Watts, Goose Lake, Iowa, Prof. Mumford, for Illinois Agricultural College, being the runner-up.

SALE OF COL. McCALMONT'S SOUTH-DOWNS.

The announcement is made in our advertisement columns that on Wednesday, the 22nd day of July next, the world-wide noted flock of Southdown sheep, property of the late Col. McCalmont, will be dispersed by auction by Messrs. John Thornton & Co., the noted auctioneers. Our own representative, Mr. W. W. Chapman, of 4 Mowbray House, Norfolk St., Strand, will be present and will be pleased to be of service to any of our Canadian friends who may avail themselves of being present on this important occasion, which will certainly be one of the most important stud sheep sales in the coming season. To say that the character of this flock is strictly first-class and up-to-date is to state the truth mildly, for it has secured a place quite at the head of the front rank, as the prize records at the principal shows in England in the last three years clearly demonstrate. The reason is not far to seek, for those who have watched the course pursued by the management know that there has been no deviation, for one course only has been pursued in the purchase of stud animals, viz., to get the best regardless of cost. One who has been an interested spectator of the whole of the show-yard career of the flock has said there was no doubt but that the improvement shown in this flock was greater than in any other he knew of. Taking the year 1900, we find, treating of the summer shows only, that its representatives were sent to eleven shows and they secured twenty-three awards, including one champion, two reserves for the same, seven firsts, six seconds and seven r. n's. In 1901, the record shows a greater improvement, for though the number of shows at which entries were made remained the same, the results were surprisingly different, thirty-four awards being taken, including one champion, three reserves for the same, eleven firsts, ten seconds, one third, and eight r. n's. With one additional show in 1902, the flock went clean ahead of all its competitors, and when the show-yard career for the year was completed it had secured to its credit no less than ten champion awards, seven reserves for the same, twenty-five firsts, seven seconds, three thirds, and eight r. n's. Although, as a rule, we only refer to the breeding-stock shows for proof of the merit of any herd or flock for stud purposes, it would not be doing justice to this great flock's reputation to omit all reference to its great success in the winter shows of the year 1901, when a series of three pens of wethers sent from it took first at each of the three great English Fat Stock Shows, namely, Norwich, Birmingham and Smithfield; at the latter show the winning pen also won the breed cup and short-wool championship cup. Last year, almost equal success was secured, and it was generally considered hard luck that the noble pen of wethers which won the 1st prize and breed cup did not also win the Short-wool Challenge Cup at Smithfield. There is, however, one most important advantage that purchasers will secure by attending this sale, namely, they will be able to secure their own selection of one of the best flocks in existence, which has been bred with one sole object, namely, to become the very best one of its breed.

J. & W. B. WATT

REARERS AND IMPORTERS OF

Shorthorns, Clydesdales and Berkshires

We breed our show cattle and show our breeding cattle.
The imported bulls, Scottish Beau, Viceroy and Scottish Peer, head the herd.
Imported and home-bred cows and heifers for sale.
A few choice young bulls on hand.
Our herd at Toronto won three firsts, a second and third out of five herd classes.
om
Salem P. O. and Telegraph Office. Elm St., C. P. R., G. T. R.

ARTHUR JOHNSTON,

GREENWOOD, ONTARIO,

Offers for sale at times' prices, 9 young SHORTHORN BULLS, from imp. dams and by imp. sires.

9 YOUNG BULLS, of purest Scotch breeding.

13 YEARLING and 13 TWO-YEAR-OLD HEIFERS.

Pickering Station, G. T. R. om
Claremont Station, C. P. R.

Spring Grove Stock Farm

Shorthorn Cattle and Lincoln Sheep.



HERD prize and sweepstakes at Toronto Industrial Exhibition, three years in succession. Herd headed by the Bruce Mayflower bull, Prince Sunshine, imp. Present crop of calves sired by Imp. Wanderer's Last, sold for \$2,005. High-class Shorthorns of all ages for sale. Also prize-winning Lincolns. Apply om

T. E. ROBSON, ILBERTON, ONT.

SCOTCH COWS and HEIFERS

of good quality, in calf to one of the great Scotch sires of the period, and a few young bulls, for sale at prices you can stand. Shropshire rams and ewes of greatest individual merit and breeding, for sale as usual. Ask for catalogue. Representative in America of Alfred Mansell & Co., College Hill, Shrewsbury, Eng. om

ROBERT MILLER, - STOUFFVILLE, ONT.

SCOTCH SHORTHORNS AND SHROPSHIRE.

Present offering:—Have still on hand one bull and four heifers, and a few cows. Shropshires of both sexes and all ages. om

BELL BROS., Bradford P. O. and Station.

SHORTHORNS. Lady Fanny and Beauty for sale 7 heifers, from 1 to 3 years old, some of them in calf to Prince Holpes 30049. om

James Caskey, Tiverton P. O., Kincairdine Sta.

SHORTHORNS.

Dark red bull calf, Blue Ribbon 2nd, 13 months old, sired by Blue Ribbon (imp.) 17095 (83705), dam by Royal George (imp.) (64725). Bull calf, 7 months old, dark red; also yearling and two-year-old heifers. om

JOHN McFARLANE, - DUTTON, ONT.

Shorthorn Cattle, Lincoln Sheep

Imp. Prime Minister at head of herd. Imp. Clippers, Miss Ramsden, and other Scotch families. Lincolns won more than half the money and first for flock at the Pan-American; International, Chicago, 1901 and 1902.

J. T. GIBSON, om DENFIELD, ONT.

SHORTHORNS:

We are offering 3 extra choice yearling bulls, all from imported straight Orickhaak, with Lavender and Miss Ramsden dams. om

THOS. ALLEN & BROS., Oshawa, Ont.

Orchard Hill Shorthorns. I am now offering 13 heifers from six months to two years, 4 bulls from 10 to 15 months old, and 7 very heavy milking cows. Here is a rare chance to get stocked with pure-bred cattle at reasonable terms. A. Johnston, Vandeleur P. O., Markdale Sta. om

RIVER FARM SHORTHORNS

I am now offering 6 choice young bulls, from 8 to 16 months old, sired by Lord Lavender 26565. They are rare good ones. Price right. om

H. PARKER, DURHAM P. O. and STATION.

SHORTHORNS. Imported and Canadian-bred. I have for sale eight young bulls from 8 to 12 months old; also a few choice heifers all got by Captain Mayfly (imp.), first-prize aged bull at Toronto and London in 1902. om

JAS. A. CREEAR, Shakespeare, Ont. om

PENNABANK STOCK FARM

Three choice Shorthorn bulls from 12 to 14 months old, solid reds. Prices reasonable. Also a few Shropshires left, of choice quality and breeding. om

Hugh Fugh, Whitevale, Ont.

In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE.

The Flow of Milk will be increased.



Why go to all the trouble of keeping cows and get only about half the milk they should produce.

Dick's Blood Purifier

strengthens the digestion and invigorates the whole system so that the nutriment is all drawn from the food. It takes just the same trouble to care for a cow when she gives three quarts as when she gives a pail. Dick's Blood Purifier will pay back its cost with good interest in a few weeks.

50 cents a package.

Lanning, Miles & Co., Agents, TORONTO.

100 ROB S A DAY

THE McCLOSKEY WINE & SPIRIT CO. LTD. TORONTO, ONT.

SHORTHORNS and CLYDESDALES.

We have for sale five bull calves, from 3 to 24 months, from imp. sire and dams; also six extra good stallions, from two to six years old.

JOHN MILLER & SONS, BROUGHAM, ONT.

SHORTHORNS (IMP.)

Cows and heifers, imp. see home-bred. Bulls, imp. and home-bred—all ages. Representing the fashionable blood of Scotland.

EDWARD ROBINSON, MARKHAM P. O. & SYN

Scotch Shorthorns

Duchess of Gloster and Mina strains. Three bulls, ready for service. Also a few choice heifers.

HARRY SHORE, "The Firs," White Oak, Ont.

MAPLE LODGE STOCK FARM

ESTABLISHED 1861. **SHORTHORNS.**—First-prize milking strains, best Scotch breeding. Young bulls and heifers for sale.

LEICESTERS.—A grand lot of ewes, bred to our imported rams, and a few choice rams new for sale.

A. W. SMITH, ALMA CRAM STA., G. T. R., MAPLE LODGE P. O., ONT. 2 1/2 miles.

Shorthorns, Berkshires and Leicesters.

FOR SALE: Choice two-year-old heifers, well gone in calf; also yearling heifers, bull calves. Bona and cows fit for breeding, and young pigs.

ISRAEL GROFF, ALMA, ONTARIO.

SHORTHORNS.

THORNHILL HERD, ESTABLISHED 27 YEARS.

Imp. Royal Member and Sailor Champion now at head of herd, which are all bred on straight Scotch lines, and are of the up-to-date kind. Present offering: some choice young bulls.

REDMOND BROS., Millbrook Sta. and P. O.

BONNIE BURN STOCK FARM, 40 rods north of Stouffville station, offers Scotch Shorthorns; choice Shropshires and Berkshires from imported and Canadian bred sows. All at farmers' prices. Inspection invited.

D. M. RUSSELL, STOUFFVILLE, ONT.

SCOTCH SHORTHORNS. Ury's Stanfords and Matchless. Young, vigorous females, all ages, for sale. Shropshire sheep and Yorkshire pigs. **ROBT. BATTY,** Glenbourne Farm, Meaford P. O. & Sta.

SHORTHORNS (imported)

One imported and one Canadian-bred bull. A few cows and heifers.

THOS. RUSSELL, EXETER, ONT.

GOSSIP.

Recently Mr. Walter Hall, of Waukegan, wrote us, saying: "My Aberdeen-Angus herd is now looking fine. The imported bull, Klondyke of the Burn, is improving every day, and is now as good a bull as I have ever seen. My imported cow and her calf, Pride of Dalmeny Stn. are doing well, and the youngster will be heard from later."

Messrs. C. & J. Carruthers, of Coburg, Ont., write us saying: "We have made a good number of sales through our advertisement of Shorthorns in the 'Advocate.' Mr. Ed. Robinson, of Markham, took several cows and heifers, and Hon. Theo. Greenway, Manitoba, got a good bull. Some of our stock has gone as far east as Prince Edward Island. We have also good demand for Yorkshires and Berkshires and for Starred Plymouth Rocks, of which we are booking orders for eggs for hatching; also, for spring pigs when wanted. Have also a good litter of Berkshires, four months old, which we are offering for sale."

Mr. Jas. Gibb, of Brookdale, reports the following sales: To Dougal McCole, Alisa Craig, one bull; to Geo. W. Uren, Medina, Ont., one bull; to Neil McKay, Maplewood, Ont., one bull; to Murray Bros., Hickson, Ont., one bull; to Samuel Lyons, Byng, Ont., one yearling bull and one grand two-months-old bull calf by Spicy Marquis (imp.); to William Taylor, Conroy, Ont., one yearling bull; to Wm. Hogg & Son, Thamesford, Ont., one yearling bull, also one five-months-old roan bull calf, got by Speculator (imp.), dam Village Maid 29th (imp.); to Conrad Wagner, Elmira, Ont., one cow and a red bull calf by Spicy Marquis (imp.); to W. D. Flatt, Hamilton, Ont., four heifer calves by Spicy Marquis (imp.), and to Jas. Hyslop, Stratford, Ont., the stock bull, Imp. Prince William. All the bulls he had advertised in "Advocate" are sold. He has a number of grand young bull calves by Spicy Marquis (imp.).

On a recent visit to Messrs. Bawden & McDonnell, Exeter, Ont., we were glad to hear that sales were very brisk, they having sold two Clydesdale stallions, Village Boss and Exeter Champion, both imported, and a Thoroughbred, Tremont, to Mr. R. Willis, Boissevain, Man. These were two extra good Clyde horses with good quality and bone. Mr. S. P. Thompson, of Regina, also purchased from them a carload of registered mares and three Shire stallions. Their champion Hackney stallion, Connaught's Heir, has been sold to R. Alexander & Co., Forest, one of the highest-priced horses sold in Canada. To Mr. W. Raye, St. Mary's, a grand Shire of exceptional quality, good feet and size. They have for sale three Shire stallions: Cannon Gate =10521=, 17 hands, weight 2,200 lbs.; a sure sire; he stood at Paisley, Scotland, as a district horse, and was let there at £400. Holme Sexton 18099, a very likely-looking six-year-old bay; about 2,200 lbs.; a very massive and well-put-up sire, from Lincolnshire Lad. Raydon Ambassador 19047, a three-year-old, who should in a few months show in any prize-ring with credit to his owner; stands 16.3 hands, weight 1,900 lbs.; sired by Prince Harold, a great prizewinner in many prominent shows. Messrs. Bawden & McDonnell may be justly proud of the success of their horses in the past, having had such noted horses as Belshazzar, who took first and sweepstakes at Toronto and London fairs on several occasions, and first premium at the Pan-American; Connaught's Heir, champion Hackney, etc. They have also for sale, Buller =7382=, a dark bay Hackney stallion, with great chest-girth, bone and quality, good knee and hock action, with plenty of snap, and withal very docile. There are besides a number of imported and Canadian mares and stallions for sale.

AYRSHIRES

WATSON OGILVIE, PROPRIETOR.



Ogilvie's Ayrshires won the herd and young herd prizes at Toronto, London and Ottawa in 1906; also at the Pan-American, in 1901, and in 1902 they won all the herd prizes and medals, sweepstakes and diplomas, with one exception. The cows are all imported, and were carefully selected for strength and constitution, style, size of teats, and milk (quantity and quality). The herd is headed by Dougladale (imp.), champion at the Pan-American and at Ottawa, Toronto and London, in 1902, ably assisted by Black Prince (imp.). Stock, imported and home-bred, for sale at all times.

ROBERT HUNTER, Manager.

Near Montreal. One mile from electric cars. Lachine Rapids, P. Q.

English Shorthorns. High-Class Ayrshire Cattle

South and Bala Shorthorns, topped with Oriskany black bulls. Young cows, bulls and heifers always on hand for sale. Eligible for the American herd-book. Royal and Highland prizewinners included for the last two years. Cows on 2000 won in prize last year and this. **W. H. HELL,** Selkirk Park, Alnwick, Northumberland, Eng.

FOR SALE: Both sexes; bulls and heifer calves from 2 to 9 months old; cows and heifers all ages. Famous prizewinners bred from this herd, including Tom Brown and White Fleck, sweepstakes prizewinners at Chicago. **DAVID BERNING & SON,** Williamstown, Ont.

I GUARANTEE A \$500 PACKAGE OF BARREN KOW CURE paid, to make any cow under 10 years old breed, or refund money. No trouble, no risk. Given in food twice a day. **L. F. Sedock, Druggist, Morrisburg, Ont.**

Jersey Bulls

Out of tested show cows and sired by Brampton's Monarch (imp.). As we have the largest herd of pure-bred Jerseys in Canada, we are able to offer great choice. Come and see or write for what you want. **B. H. BULL & SON,** C.P.R. and G.T.R. stations, Brampton, Ont.

Best Jersey Bulls AT LOWEST PRICES.

Owing to the large sale of registered Jersey cows, all in milk (18 head), that I have just made, I offer several bull calves, of unsurpassed breeding and from tested dams, at prices that will surprise purchasers. This, because the sale of so many cows in profit leaves me short of milk for the present. Also some choice heifers in calf.

Mrs. E. M. Jones, Brockville, Ont. Box 324.

DO YOU WANT A SNAP?

Jersey cows and heifers, also two young bulls, at low prices, from prizewinning stock. Write for prices. **W. W. EVERITT, Des-oto Park Farm, CHEATHAM, ONT.**

JERSEYS, GOTSWOLDS, YORKSHIRES.

Registered Jersey cattle, Gotswold sheep and Yorkshire pigs for sale. A few nice heifers, 6 mos. to 2 years, and 1 yearling bull, by Count of Pin Ridge, grandson of Adelaide of St. Lambert, record 84 lbs. milk daily, on WM WILLIS, NEWMARKET, ONT.

Maple Park Farm Holsteins. Netherland Hamming De Kol (imp.) stock bull. Stock of all ages for sale from the great De Kol Pietertje Clothilde and Barrington strains. Home of the great cows, Edgeley Mol, milk record 104 lbs. in 21 hours; Emery Beauty, the great public test winner, and many others with heavy records. **SIDNEY WACKLIN** on Streetsville P. O. and station, C. P. R.

WOLSTEIN BULLS

FOR SALE: From 4 to 7 months old, having sires in their pedigree from such strains as Inka, Netherland, Royal Angie, and Tritonia Prince, and out of imported females that have proven their worth at the pail. **THOS. B. CARLAW & SON,** Warkworth

Ridgedale Farm Holstein-Friesians for Sale.

3 yearling bulls; also bull and heifer calves; all of choice breeding. Prices always reasonable. Write, or come and see them. **R. W. WALKER, Utica P. O., Shipping stations: Port Perry, G. T. R., Myrtle, C.P.R. on**

Tredinnock Ayrshires.

Imported bulls at head of herd: Glencairn 3rd, Napoleon of Anchenbrain, and Lord Dudley. Forty imported females, selected from leading Scotch herds, and their produce from above-named bulls. Size combined with quality and style, well-formed udders, good-sized teats, and capacity for large milk production. Bull calves for sale; also a few young cows and heifers. For prices and particulars address **JAMES BODEN, Mgr., St. Anne de Bellevue, Quebec.** Farm close to St. Anne Station, G.T.R. & C.P.R., 20 miles west of Montreal. on

AYRSHIRES and YORKSHIRES

Young bulls fit for service and young calves of either sex, all from heavy milking dams and imported sires. Sows safe in pig, and early January pigs, either sex, of the right type and breeding. Write us for anything you may need in either breeds, and you will find our prices very reasonable. **ALEX. HUME & CO., Menie P. O.**

NETHERLEA AYRSHIRES.

Present offering: 3 bulls fit for service, prizewinners; also a few young females, sired by Napoleon of Anchenbrain (imp.), whose dam's record was 72 lbs. a day, and all of them out of record cows. **T. D. McCALLUM,** on Danville P. O. and Station, Quebec.

AYRSHIRE CATTLE

SHROPSHIRE SHEEP, B. P. ROCK FOWL and 20 YOUNG LARGE ENGLISH BERKSHIRES FOR SALE.

J. YUILL & SONS, on Carleton Place, Ont.

W. W. BALLANTYNE, Stratford, Ontario, offers three

YEARLING AYRSHIRE BULLS

of choice breeding, and right good individuals, at reduced prices, to make a clearance this month. Also bull calves, all ages, and heifer calves, yearlings and two-year-olds.

LITTLE'S PATENT FLUID (NON-POISONOUS) SHEEP DIP AND CATTLE WASH

THE ORIGINAL Non-Poisonous Fluid Dip

Still the favorite dip, as proved by the testimony of our Minister of Agriculture and other large breeders.

For sheep. Kills ticks, maggots; cures scab; heals old sores, wounds, etc., and greatly increases and improves growth of wool.

Cattle, horses, pigs, etc. Cleanses the skin from all insects, and makes the coat beautifully soft and glossy.

Prevents the attack of Warble Fly. Heals saddle galls, sore shoulders, ulcers, etc. Keeps animals free from infection.

No danger, safe, cheap, and effective

Beware of imitations. Sold in large tins at 75 cents. Sufficient in each to make from 25 to 40 gallons of wash, according to strength required. Special terms to breeders, ranchmen, and others requiring large quantities.

SEND FOR ALL DRUGGISTS. SEND FOR PAMPHLET.

Robert Wightman, Druggist, Owen Sound Sole agent for the Dominion.

SHEEP BREEDERS' ASSOCIATIONS

American Shropshire Registry Association, the largest live stock organization in the world. Hon. John Dryden, President, Toronto, Canada. Address correspondence to **MORTIMER LEVERING, Secretary, Lafayette, Indiana.**

Dorsets & Chesters

Young stock in Dorset Sheep and Chester White Hogs of good quality for sale, reasonable. **R. H. HARDING, THORNDALE, ONT.** "Mapleview Farm."

FOR SALE, AT MAPLE AVENUE STOCK FARM, CHOICE

Lincoln Sheep and Shorthorn Cattle Bred from best English stock. Bred from Scotch bulls of fashionable families. **CAN SUPPLY EITHER IN CARLOAD LOTS.** Write us before buying elsewhere. Address: **F. H. NEIL, Proprietor, LUAN, ONT. Box 35. Telegraph and Railway Station.**

In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE.

GOSSIP.

Writing us under recent date, Mr. Jas. Bowes, Stratnairn, says:—"I am much pleased with the Farmer's Advocate as an advertising medium. I have now some yearlings and two-year-old heifers for sale, some of them served by my stock bull. In this year's crop of calves I have some beautiful heifers of the various families named in my advertisement." Shipping station, Meaford, Ont.

Mr. W. W. Ballantyne, of Stratford, writes us, sending change of ad., and says:—"The young Ayrshire bulls I am now offering are a capital, good lot of the best dairy type and Ayrshire character. I have also on hand, and for sale, several young females, some bred and some younger." Parties desiring to secure good dairy blood will be given a good assortment of stock from which to select. Write or visit W. W. Ballantyne, Stratford, Ont.

We are informed by Mr. J. M. Gardhouse, Weston, Ont., that sales have been very brisk lately, he having sold and shipped to Mr. W. B. Warren, of Napinka, Man., the imp. Clydesdale stallion Gay Gordon and two Clydesdale mares; also 7 head of Shorthorn cattle, 10 Leicester ewes and a ram, 3 Yorkshire and 2 Berkshire hogs. He also purchased from Mr. John Bright, of Myrtle, six mares for the same party. Mr. Gardhouse attributes much of his success in business to advertising in the Farmer's Advocate.

When ordering a continuance of their advertisement, Bell Bros., of Bradford, write: "We might just say that we think our advertisement is a profitable investment, as we get correspondence from prospective buyers of Shorthorn cattle in every part of the continent. We have sold one bull to Frank Lloyd, Severn; one to Dennis O'Connell, O'Connell P. O., and one of the Windermere Stock Improvement Co., of Muskoka; also one bull to Jos. Sawyer, Gifford, Ont. I have still one bull and four heifers left."

TRADE NOTES.

FROST & WOOD.—This well-known firm of manufacturers of farm machinery, established 1839, with head offices at Smith's Falls, Ont., have recently issued a handsome up-to-date catalogue. Implements of all kinds for farm work on the broad prairie can be purchased direct from this well-known firm or through their numerous agents. On Princess St., Winnipeg, the Manitoba branch offices and warehouses are situated. They are modern and commodious in their make and equipment, and contain a large supply of farm implements of the latest designs. Seven other branch offices and warehouses are located in as many of the leading centers of our Dominion, so that this strong firm are pushing their business over all parts of our land. They manufacture implements suitable for the various conditions of the many parts of our Province, paying special attention to the growing needs of our Western wheat fields.

THE SPRAMOTOR CO., London, Canada, write us: "There seems to be an impression in Canada that all sprayers or spray pumps are SPRAMOTORS, which impression is fostered by some vendors of cheap and inferior apparatus, thereby rendering themselves liable for infringement of trade-mark. The public are hereby notified that there is only one Spramotor made in the world, which is made and sold under the trade-mark, 'Spramotor,' made by the Spramotor Co. of London, Canada, and Buffalo, N. Y. All Spramotors are fully guaranteed in every respect, and they were awarded first place at the Canadian Government Spraying Contest and the Pan-American gold medal. Write for free particulars, The Spramotor Co., London, Canada."

The Willing Horse

Dr. Hess' Stock Food given twice a day, in tablespoon doses, makes a horse fit for any task, and willing at any work. It improves the coat, purifies the blood, removes dropsical swellings and stockings of the legs, prevents cracked or greased heel, cures distemper, indigestion, constipation, worms and scratches, and is a tonic to the organs of reproduction. Dr. Hess' Stock Food is especially valuable for mares in foal and for growing colts—as well as for fattening horses for market. It is easy to grow a handsome animal from a very unpromising colt, if Dr. Hess' Stock Food is given regularly, from the first year on. Dr. Hess' Healing Powder cures galls, cuts, burns, and open wounds of every description. Four ounce package by mail 25c.

Dr. Hess' Stock Food

In every package of Dr. Hess' Stock Food is a little yellow card entitling the purchaser to free prescription for his stock by Dr. Hess.

DR. HESS' Great Stock Book

on diseases of animals and poultry, the only complete treatise for popular use, consulted and recommended by prominent veterinarians, will be sent free, postpaid, if you write what stock you have; what stock-food, you have used; and mention this paper.

C. M. McCLAIN, Veterinary Surgeon, Jeromesville, O., says:—"It is the most comprehensive work for farmers I have ever seen."

H. H. LAYMAN, Veterinary Surgeon, Lattsburg, O., says:—"In my practice I often follow suggestions given in your Veterinary Work."

We also make Dr. Hess' Poultry Pan-a-co-a, Dr. Hess' Healing Powder and Instant Louse Killer. Address

DR. HESS & CLARK, Ashland, Ohio, U.S.A.



is a scientific compound for horses, cattle, hogs and sheep; endorsed by medical and veterinary colleges and prescribed by leading veterinarians everywhere. If the medical and veterinary colleges know of nothing better, it must be good. Dr. Hess is a graduate of both these Schools of Medicine, and his prescriptions and works are recognized as standard by the profession. No unprofessional manufacturer can equal his products.

If your dealer can't supply you, we will. Prices as advertised. Duty paid. 7 lbs., 65c.; 12 lbs., \$1.00; 25 lbs., \$2.00; 50 lbs., \$3.70; 100 lbs., \$7.00.

PRIZEWINNING COTSWOLDS.

Imported and home-bred stock, prizewinners at all the leading fairs. ELGIN F. PARK, on Box 21, Burgessville, Ontario, Canada.

IMP. COTSWOLD SHEEP

Five rams (year-olds), both sires and dams imp.; 10 ewes (year-olds), sire imp. Also this year's lambs, both sexes; Yorkshire and Tamworth hogs. om BROOKS & LANGMAID, COURTOISE, ONT.

W. S. CARPENTER, "MODEL FARM," SIMCOE, ONT.

Importer and breeder of Shropshire sheep. My flock was represented at Toronto, and won first and second on aged ewes, and on shearing ram, first and second on aged ewes, and on second on the pen. First time exhibiting. If in need of a first-class yearling ram, imported or home-bred, write! Your wants can be supplied, and at prices consistent with quality. Have a choice lot to choose from, and can guarantee satisfaction. Come and see them, or a card will bring them. om Station One-half Mile from Farm, Wabash and G. T. R.

SHROPSHIRE FOR SALE.—Shearing rams, ram lambs, ewe lambs, also ram lambs, ewe lambs, and on shearing ram, first and second on aged ewes, and on second on the pen. First time exhibiting. If in need of a first-class yearling ram, imported or home-bred, write! Your wants can be supplied, and at prices consistent with quality. Have a choice lot to choose from, and can guarantee satisfaction. Come and see them, or a card will bring them. om Station One-half Mile from Farm, Wabash and G. T. R.

Newcastle Herd of Tamworth Swine

Have for a number of years taken a share of the best prizes offered at Toronto Exhibition, but this year has excelled all past records, having taken the sweepstakes for the best herd; also both silver medals for best Tamworth boar and best Tamworth sow, besides many other prizes in the various classes. Our present offerings are: A few choice young sows, 4 to 5 months old; 2 yearling sows, in pig; and we are now booking orders for spring pigs, both sexes. Enquiries promptly answered. om COLWILL BROS., NEWCASTLE, ONT.

TAMWORTHS.

Young pigs for sale, from medal-winning sow O. A. C. 110, and other good ones, sired by Imp. Starlight, Pan-American First, and Bold Boy, Toronto winner. JOHN HOED & S.N., om Parkhill P. and Station.

WILLOW LODGE BERKSHIRES

Herd headed by Long-fellow 10th of H. P., assisted by the noted prizewinner, Highclere Crown 3rd. Sows, the best money will buy, and are winners. Young stock of both sexes and all ages for sale, not akin. om W. WILSON, SNELGROVE, ONT.

Large English Yorkshires

Imported and Canadian-bred Yorkshires, from stock of the best British herds. A choice lot of boars, ready for service, and a number of sows being bred to Imported Dalmeny Long Sam, for sale. Also young pigs, all ages. om H. J. DAVIS, WOODSTOCK, ONT. Box 518.

NEWMARKET, ENGLAND

IMPORTANT SALE OF THE

Late Colonel McCalmont's

PURE-BRED SOUTHDOWN SHEEP.

JOHN THORNTON & CO. will sell by auction, on

WEDNESDAY, JULY 22nd, at CROCKFORD'S, NEWMARKET,

the flock of

SOUTHDOWN SHEEP,

The property of the late Colonel McCalmont, which now holds the premier position among English winning flocks, and consists of about 700 head, and includes all the noted prizewinners. Last year 2 special champion prizes, 3 medals and reserves for champions, 25 first prizes, 7 seconds and 3 third prizes were won by this flock, including the championship at the Royal Agricultural Society's meeting at Carlisle, and the Bred Cup at the Smithfield Show. Catalogues may be had of HERBERT J. GURD, 4 Havelock, Newmarket, England, or of JOHN THORNTON & CO., 7 Princess Street, Haverock Square, London, England, who will undertake commissions and attend to insurance and shipment. om

SUMMERHILL HERD OF Large English Yorkshires.

HEADQUARTERS FOR THE IDEAL BACON HOG.



Our winnings at the large shows, for 1901, are as follows: At Toronto every possible first prize and five seconds, two silver medals, and first for pen of pure-bred bacon hogs, also sweepstakes on bacon hogs over all breeds; at London every possible first but two; while at the Pan-American, where our herd was divided, half going to Toronto, we won six out of ten possible firsts, also sweepstakes on boar any age. At the Pan-American (Buffalo), Toronto and London there were thirty-six first premiums and medals given; all the medals and every first prize but six won by the Summer Hill Yorkshires. When in need of the best write D. O. FLATT & SON, MILLGROVE, ONT. om Telephone: Millgrove, Ont.

HILLOREST HERD OF Large English Berkshires

My brood sows are imported or show animals, and the sires are big, long fellows of the bacon type. For sale: An excellent lot of young pigs, and a few young sows recently bred. Can supply pairs not akin. Enquiries promptly answered. Vine station, G.T.R.—near Barrie. Jno. Lahmer, Vine, Ont.

FOR SALE: Yorkshires and Holsteins

Best type and quality. Young stock constantly on hand. Prices right. om R. HONEY, Brickley P. O., instead of Warkworth.

Yorkshires—For the next 3 months I can supply either sex, that for ideal bacon type, smooth, even finish, are unsurpassed. Prices reasonable. om W. M. TEASDALE, Thornhill Sta. and electric cars. Dollar P. O.

YORKSHIRES AND BERKSHIRES.

FOR SALE: Some choice young sows and boars, ready to breed; also Barred Rock eggs, \$1 per setting. om O. & J. CARRUTHERS, Cobourg, Ont.

Langelier's Yorkshires

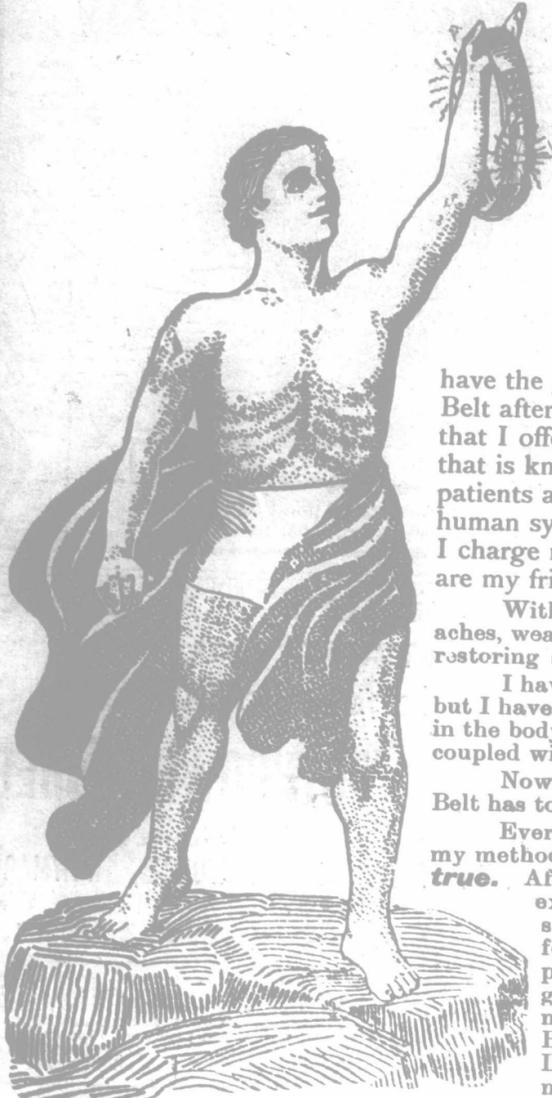
I am expecting, by the first steamer next spring, a few choice sows with litters. Will book orders now for young stock, 8 to 10 weeks old, to be delivered at beginning of May. This is a rare chance to buy imported stock at reasonable prices. Write me now, and ask also for the finest poultry circular published in Canada. om GUS. LANGELIER, Quebec City.

Spruce Grove Herd Yorkshires—

A few choice boars fit for service; also choice pairs, not akin, from 7 weeks old to 3 months, for sale. Prices right. om FRED. C. SMITH, New Hamburg, Ont.

In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE.

"I'M STRONG ONCE MORE."



This is the way they feel, the men who had given up hope, who thought there was no cure for them, until they came upon Dr. McLaughlin's Electric Belt. Now they are full of life, overflowing with joyous spirits, and "Care to the winds." Pains are gone, weakness is gone, and full of vigor is in every action.

Do you want to feel like that? Then wear this grand life-giving appliance for two months at night. It will charge every nerve with electric life, and you will feel like a two-year-old. It puts steam in your run-down body, drives away pain and renews youth.

"I am an enthusiast," you say. "Why should I not be? I have the gratitude of thousands of people who have been cured by my Electric Belt after the failure of the best physicians." I am enthusiastic because I know that I offer suffering humanity the surest cure for the least expenditure of money that is known to-day. I have gained my success by learning how to treat my patients and then curing them. I understand the action of the current on the human system. My years of experience have taught me how to apply electricity. I charge nothing for my knowledge, knowing that it helps me. My patients are my friends. They are advertising my business.

With my Electric Belt I cure Rheumatism in its worst forms; I cure pains and aches, weak nerves, general debility and any other trouble which can be cured by restoring strength.

I have not only proven that electricity is the substance of life and organic vitality, but I have perfected the best known appliance in the world for replenishing that force in the body when it is lost. My Electric Belt is the result of years of scientific study, coupled with experience and mechanical skill.

Now, dear reader, my strongest arguments, are the large number of cures my Belt has to its credit.

Every man and woman who comes into my office gets a practical illustration of my method of cure and goes away convinced that the claims I have made for it are true. After seeing original letters from the cured (letters which I am permitted to exhibit) their doubts are expelled, and they know that my Electric Belt makes strong men out of weak men, gives buoyancy and ambition to the man who formerly got up tired every morning. They find that weak organs and atrophied parts are made as sound and strong as Nature intended. They read grateful letters from men and women who were cured by my Belt of Rheumatism, Backache, Lumbago, Sciatica, Stomach, Liver, Bowel, Kidney and Bladder troubles. They also see the evidence of wonderful cures of Locomotor Ataxia and some forms of paralysis. The following cures were made by

DR. McLAUGHLIN'S ELECTRIC BELT.

Your Belt is all that you claim it to be. It has cured me of indigestion, also my kidneys.—**GEO. S. BROOKS, Shanty Bay, Ont.**

My stomach is as good as it ever was and I can eat anything. My bowels are regular, in fact I feel like a new man.—**A. MCKENZIE, Corlies, Que.**

I have never tried anything as good as your Belt for weakness. It has done its work well.—**STEPHEN MANTLE, Headford, Ont.**

Some months ago I got one of your Belts, and to-day I would not take \$100 for it if I could not get another.—**JAMES GREGG, Bridgenorth, Ont.**

I have thousands of just such letters. If you will tell me where you live I will send you a name of a man in your town I have cured. For the benefit of those who are skeptical regarding the merits of my method, I know there is no better way to prove my confidence in the wonderful curative power of my Belt than to cure you before I ask you to pay for it, and as I DO KNOW that it will restore strength in every instance I am willing to cure first and ask my pay afterward. So if you are weak, breaking down, or sick in any manner come to me, tell me your trouble, and let me cure you. When you are cured you can pay me. This offer is open to any man who will secure me. All I ask is that the man or woman asking me to take their case under these terms give me evidence of their honesty and good faith. They may use the Belt at my risk and

PAY WHEN CURED.

READ WITH CARE

Every patient wearing Dr. McLaughlin's Electric Belt receives free, until cured, the advice of a physician who understands his case. Agents or drug stores are not allowed to sell these goods.

FREE BOOK—If you cannot call, write for my beautiful illustrated book, giving you cuts of my Belts and prices. This little book is of great value to any one; it contains a lot of useful information to men who are not what they should be; tells how strength is lost and won. I send this book closely sealed free to anyone. I have a book for women as well as men.

DR. M. D. McLAUGHLIN, 130 Yonge Street, TORONTO, ONT.

OFFICE HOURS—9 A.M. TO 8.30 P.M.

In answering the advertisement on this page, kindly mention the FARMER'S ADVOCATE.

THIRTY-THIRD ANNUAL REPORT
OF
The Mutual Life of Canada.

As presented at the Annual Meeting of the Company held at its
Head Office, Waterloo, Ont., Thursday, Mar. 5th, 1903.

The Directors have pleasure in submitting their report for the year ending Dec. 31st, 1902, with the financial statement duly audited.

The business of the year was very satisfactory in all respects. New insurances were issued under 3,011 policies for \$4,527,878, all of which were written in Canada, excepting 14 policies for \$22,460. The whole amount of insurance in force is now \$34,467,420 under 23,621 policies, being an increase of \$2,754,389 for the year. The death rate was very light, and much below the expectation, while the lapses, surrenders and other terminations were less than in 1901.

INCOME.—The net premium income was \$1,111,897.41; Interest and Rents, \$275,507.03; Annuities, \$1,056; Profit and Loss, \$2,637.81; total income, \$1,391,098.25, being an increase of \$113,412.17 over 1901.

DISBURSEMENTS.—The payments to policyholders for death claims, endowments, annuities and surrender values were \$405,506.44; for surplus, \$77,843.79; total, \$483,350.23. All other payments were \$248,956.13, including expenses, taxes, etc. The total disbursements were \$732,306.36, and the excess of income over disbursements was \$658,791.89.

ASSETS.—The Cash assets now amount to \$6,098,333.54, and the total assets are \$6,459,780.08, an increase for the year of \$701,957.91.

LIABILITIES.—The total liabilities are \$5,960,629.84, including the reserve for the security of policyholders, \$5,925,443.97, computed on the Company's standard 4% and 3½%.

SURPLUS.—On the Company's standard of valuation, the surplus is \$499,150.24, and on the Government standard, \$738,256.14. The increase in surplus is \$119,179.71.

NEW RESERVE STANDARD.—For some years past the earning power of money has gradually but steadily decreased. Recognizing the importance of making the most ample provision for the fulfilment of our contracts, your Directors decided to place all new business issued from and after January 1st, 1903, upon a 3 per cent. basis of valuation, which has been adopted by many leading Companies, both native and foreign.

The Manager, Officers and staff have discharged their duties to the satisfaction of the Board, and in the best interests of the Company. The Agents continue to merit the commendation of the Directors and Policyholders, for their loyalty and the success attending the year's work.

The Executive Committee has again examined all the securities and compared them with the records, all of which were found correct, and in accordance with the statement herewith submitted.

The following Directors retire by expiry of term of office, but all are eligible for re-election: Sir F. W. Borden, W. J. Kidd, William Snider, and Robert Melvin.

On behalf of the Board,
ROBERT MELVIN, PRESIDENT.

FINANCIAL STATEMENT.

LEDGER ASSETS.		
Dec. 31st, 1901		\$5,439,541 65
INCOME.		
Premiums (net)	\$1,111,897 41	
Interest and rents	279,200 84	
		1,391,098 25
PAYMENTS TO POLICYHOLDERS.		
Death Claims	\$242,049 75	
Matured Endowments	112,747 00	
Payments to Annuitants	9,484 30	
Purchased Policies	41,225 39	
Surplus paid to Policyholders	77,843 79	
All other payments	483,350 23	
	248,956 13	
		732,306 36
LEDGER ASSETS.		
Debentures and Bonds, Account Value	\$2,290,322 95	
Mortgages	2,994,644 56	
Loans on Policies	677,288 25	
Loans on Stocks	7,500 00	
Liens on Policies	33,739 49	
Real Estate	44,892 45	
Real Estate, Company's Head Office	20,861 96	
All other items, including Cash	28,925 88	
Additional Assets		\$6,098,333 54
		361,446 54
TOTAL ASSETS.		
		\$6,459,780 08
LIABILITIES.		
Reserve on Policies in force 4% and 3½%	\$5,925,443 97	
All other Liabilities	35,185 87	
		5,960,629 84

Surplus, Company's Standard 4% and 3½% - - \$499,150.24
Surplus, Government Standard 4½% and 3½% - - \$738,256.14

Audited and found correct.

J. M. SCULLY, F. C. A., } AUDITORS. GEO. WEGENAST, }
A. J. BREWSTER, } MANAGER.

The various reports having been adopted, the retiring Directors were unanimously re-elected. After several able and pithy addresses had been made by members of the Board, the Head Office Staff, the Agents and others, the meeting adjourned.

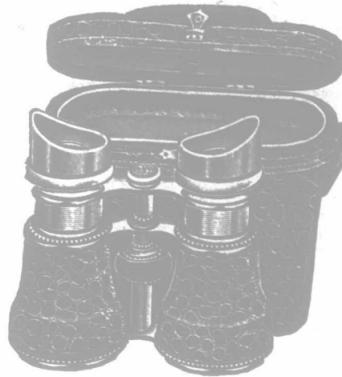
The Directors met subsequently and re-elected Mr. Robert Melvin, President; Mr. Alfred Hoskin, K. C., First Vice-President, and the Hon. Mr. Justice Britton, Second Vice-President of the Company for the ensuing year.

Booklets containing full report, comprising list of death and endowment claims paid and other interesting and instructive particulars, are being issued and will in due course be distributed among Policyholders and intending insurants.]
W. H. RIDDELL, SECRETARY.

In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE.

FIELD GLASSES-50-Mile range-\$3.55

REGULAR RETAIL PRICE, \$10.00.



We have secured 27 more pairs of remarkably powerful Achromatic Field Glasses, the body of the glass and case and straps being made of black pebbled or tan imitation alligator leather, all metal parts being finished in black or bright nickel, which we are clearing at the unheard-of price of \$3.55 a pair. In the March 5th issue of this paper we offered 3 dozen field glasses, a little less powerful than these, and they and 16 pairs more, which we succeeded in getting, were all taken in a few days. The 27 pairs of glasses which we now offer are extra large and very powerful, and are provided with hoods, which can be drawn out to shade the outer lenses on very bright days. A regular dealer would charge you \$10.00 for a pair, but as we wish to clear them out quickly we will sell you a pair for \$3.55, which is much less than the wholesale price. We know that if you could see them you would be quick to realize the great bargain we offer. We are therefore willing to send a pair for examination to any address in Canada. We ask not one cent in advance. You simply write, saying that you would like to see a pair, and we will at once ship them to your nearest express office. When they arrive, you call and test thoroughly, and then, if satisfied that they are worth \$10.00, pay the express agent only \$3.55 and express charges, and you will own as fine a pair of glasses as any dealer would sell you for \$10.00. They are beautifully finished, fitted with extra powerful achromatic lenses. On a clear day you can see 50 miles with them. They are not the small pocket field glasses, of use only on race tracks, but genuine long-distance glasses, suitable for any purpose. They are worth their weight in gold to cattlemen, farmers, hunters, prospectors or fishermen. Just drop us a card, and we will send you a pair for examination. When you see them we know you will be glad to get them at our price. Write to-day. Remember, we have only 26 pairs. Of the 53 pairs already sent out, not one has been returned. If you do not live near an express office, send cash with order, and we will forward them by mail, postpaid. JOHNSTON & CO., Box 3321, Toronto.

DRESSED DOLL FREE!



GIRLS, would you like to have this beautiful dressed doll? If so, send us your name and address on a post card and we will send you one doz. large, beautifully colored packages of Sweet Pea Seeds postpaid. Sell them at 10c, each, return us \$1.20 and we will immediately send you the most beautiful Doll you have ever seen. Doll is fully and fashionably dressed, including a stylish hat, underwear trimmed with lace, stockings and cute little slippers ornamented with silver buckles. She has lovely golden curly hair, pearly teeth, beautiful eyes and jointed body.

Eva Gilley, New Westminster, B.C., said: "I received your pretty Doll and am very much pleased with it. It is a perfect beauty and far exceeded my expectations."
Lizzie Sprunt, Newdale, Man., said: "I received the Doll and think it is a fine Premium. It is the loveliest Doll I have ever had."
Gertie McDonald, Bonaville, Bay, Newfoundland, said: "Thanks very much for my beautiful Doll. I am more than pleased with it."

GIRLS, just stop and think what a truly wonderful bargain we are offering you. You can get this lovely big Doll completely dressed for selling only ONE DOZEN packages of Sweet Pea Seeds. Each package is beautifully decorated in 12 colors and contains 42 of the rarest, prettiest and most fragrant varieties in every imaginable color. They are wonderful sellers. Everybody buys.

Maggie Sinclair, Shelburne, Ont., said: "I sold all the seeds in a few minutes. It is a pleasure to sell them."
Mary Spence, Mono Mills, Ont., said: "I no sooner opened my parcel than I had all the seed sold. They went like wildfire."
A 50c. certificate free with each package. Girls, write us at once and this beautiful Doll will be your very own in a short time.
Prize Seed Co., Dept. 3321 Toronto



\$200.00 CASH FREE

For Clever People with Brains

Can you tell us what prominent French-Canadian Statesman of the present day is represented by this picture? If so, you may win \$200.00 in cash. To help you a little we will tell you that there are seven letters in the name and that the first is L. Now set to work and study the picture at once. It requires thought, patience and time, but stick to it and you may win the cash. The Golden Prizes of life are being gained by both brains and energy nowadays. Here is a Golden chance for anyone who will strive hard and it does not cost one cent to try. If you possess skill and observation you should be successful. Don't delay a moment, but study the picture very carefully and if you are clever and smart enough to find out who it represents write us at once. Who knows but what you may win the cash? There is only one other condition, which should take you less than half an hour of your time, of which we shall write you as soon as your answer is received. Our former Cash Prizes have gained the hearts of many people who needed the money. If you need money, write us immediately. Prize Co., Mon-y Dept. 3321 Toronto.



BOYS, ATTENTION!

The above picture illustrates four well-known parts of a gun. To every boy who is able to name the different parts, and who sends us the answer, will be given, absolutely free, a fine All-Steel Long Distance Air Rifle, with handsomely nickel-plated barrel, trigger guard and side plates, improved globe sight, pistol grip and walnut stock. Just what every boy needs. Always ready for Kats, Sparrows, Squirrels, etc. It does not cost you one cent to answer this advertisement. Don't delay a moment, but study the picture carefully, and if you are clever and smart enough to make out the names of the different parts, write us at once. There is only one other condition necessary to be complied with before you become entitled to one of these handsome Air Rifles, of which we shall write you as soon as your answer is received. This condition is very simple, in fact it is merely a slight favor which we would like you to do for us. It will not cost you one cent, and will not take up more than a few minutes of your spare time. Write at once. THE ENTERPRISE CO., Rifle Dept. 3323 Toronto.

NORTHWEST TERRITORIES Agricultural Institute Meetings.

A series of meetings under the auspices of the local Agricultural Societies and the Territorial Department of Agriculture will be held as follows:—

SPEAKERS:

Geo. HARCOURT, B. S. A.,
AND

Geo. LAW, Dominion Forestry Inspector,

will deliver lectures on agricultural subjects at the following points and dates:

Ayocla	Tuesday	March 17th	at 2 p.m.
Manor	Wednesday	" 18th	at 2 p.m.
Alameda	Thursday	" 19th	at 2 p.m.
Glen Ewen	Friday	" 20th	at 2 p.m.
Carleton	Saturday	" 21st	at 2 p.m.
Ginsbor	Monday	" 22nd	at 2 p.m.
Stevan	Tuesday	" 23rd	at 2 p.m.
North Forest	Wednesday	" 24th	at 2 p.m.
Weyburn	Thursday	" 25th	at 2 p.m.
Yellowgrass	Friday	" 26th	at 2 p.m.
Milestone	Saturday	" 27th	at 2 p.m.
Emerson	Monday	" 28th	at 2 p.m.
Moose Jaw, Town Hall, Tues.	" 29th	at 2 p.m.	
Maribon	Wednesday	April 1st	at 2 p.m.
Caron	Thursday	" 2nd	at 2 p.m.
Pass	Friday	" 3rd	at 2 p.m.
Regina	Saturday	" 4th	at 2 p.m.
Prince Albert	Tuesday	" 7th	at 2 p.m.
Colleston	Wednesday	" 8th	at 2 p.m.
Saskatoon	Thursday	" 9th	at 2 p.m.
Dundurn	Friday	" 10th	at 2 p.m.
Lumsden	Saturday	" 11th	at 7 p.m.

SPEAKERS:

T. N. WILSON, Chief Inspector of Noxious Weeds,
AND

DUNCAN ANDERSON, of Professor Robertson's staff.

Beaverdale, Schoolhouse	Wednesday	March 18th	at 2 p.m.
Yorkton, Meredith Hall	Thursday	March 19th	at 2 p.m.
Saskatoon, Agricultural Hall	Friday	March 20th	at 2 p.m.
Churchbridge	Saturday	March 21st	at 2 p.m.
Fleming	Tuesday	" 24th	at 2 p.m.
Moosomin	Wednesday	" 25th	at 2 p.m.
Wapella, Sutherland's Hall	Thursday	March 26th	at 2 p.m.
Whitewood, Town Hall	Friday	March 27th	at 2 p.m.
Broadview, Agricultural Hall	Saturday	March 28th	at 2 p.m.
Gravelly	Monday	March 30th	at 2 p.m.
Wesley, Huribert's Hall	Tuesday	March 31st	at 2 p.m.
Indian Head, Town Hall	Wednesday	April 1st	at 2 p.m.
Fort Qu'Appelle	Thursday	April 2nd	at 2 p.m.
Qu'Appelle Sta.	Friday	" 3rd	at 2 p.m.
Elginville	Saturday	" 4th	at 2 p.m.

All persons interested are respectfully urged to attend.

CHAS. W. PETERSON,
DEPUTY COMMISSIONER OF AGRICULTURE.

Department of Agriculture,
Northwest Government Offices,
Regina, February 23rd, 1903.

WESTERN SERIES

Agricultural Institute Meetings.

A series of meetings under the auspices of the local Agricultural Societies and the Territorial Department of Agriculture will be held as follows:

SPEAKERS:

DUNCAN ANDERSON, of Prof. Robertson's staff,
AND

ARCH MITCHELL, Dominion Forestry Inspector,

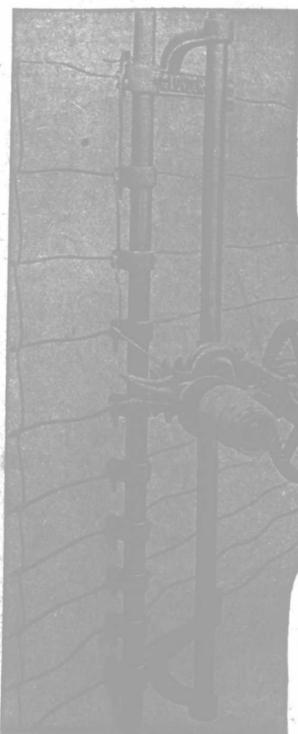
will deliver lectures on agricultural subjects at the following points and dates:

Maple Creek	Tuesday	April 7th	at 1 p.m.
Medicine Hat	Wednesday	" 8th	at 2 "
Pincher Creek	Thursday	" 9th	at 2 "
McLeod	Friday	" 10th	at 2 "
Stirling	Saturday	" 11th	at 2 "
Raymond	Monday	" 13th	at 2 "
Cardston	Tuesday	" 14th	at 7 "
Mountain View	Wednesday	" 15th	at 2 "
Macrath	Thursday	" 16th	at 7 "
Lethbridge	Friday	" 17th	at 2 "
Didbury	Tuesday	" 14th	at 2 "
Olds	Wednesday	" 15th	at 2 "
Innisfail	Thursday	" 16th	at 2 "
Red Deer	Friday	" 17th	at 2 "
Lacombe	Saturday	" 18th	at 2 "
Strathcona	Monday	" 20th	at 7:30 "
Edmonton	Tuesday	" 21st	at 2 "
Fort Saskatchewan	Wednesday	" 22nd	at 2 "
Clover Bar	Thursday	" 23rd	at 2 "
Wetaskiwin	Friday	" 24th	at 2 "
New Norway School	Saturday	" 25th	at 2 "
Rosenroll School	Saturday	" 28th	at 8 "
Ponoka	Monday	" 27th	at 2 "

All persons interested are respectfully urged to attend.

CHAS. W. PETERSON,
DEPUTY COMMISSIONER OF AGRICULTURE.

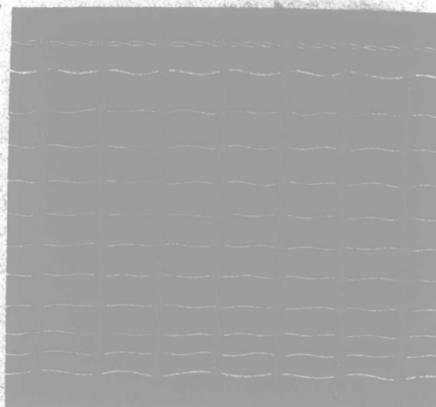
Department of Agriculture,
Northwest Government Offices,
Regina, February 23rd, 1903.



London Fence Machines

BUILD THE FENCE ON THE GROUND,
SAVE HALF THE COST, BUILD BETTER FENCES.

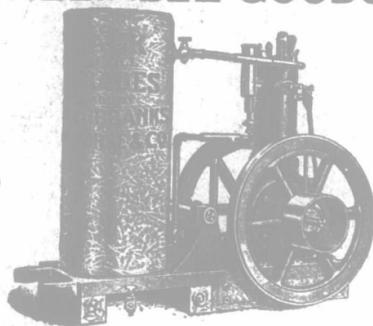
Price averages only 1 cent per rod of fence on 100-acre farm.
Run easily.
Work rapidly.
Work perfectly.
Have all possible improvements.
Build two rods for one.
Built to suit your purpose.
Operated by anyone.
Expense for labor, 3 to 5c. per rod.
Build portable fence.
Build heavy permanent fence.
May be used even in winter or any slack time.
Pay to own and hire a man to run if necessary.
And London Coiled Spring Wire (with tin tags) gives unbounded satisfaction.
Ask your Dealer or Implement Agent for it, or write us for it.



LONDON FENCE MACHINE CO., LTD.
Head Office and Works, LONDON, Ont. American Office and Works, CLEVELAND, Ohio.

A. P. McDonald & Co., Sole General Agents for the West, 237 Main St., Winnipeg.

RELIABLE GOODS IN ALL LINES



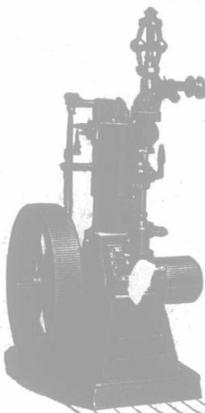
2 1/2 H.P. JACK OF ALL TRADES.
Send for further information and Catalogue.
FAIRBANKS, MORSE & CO., St. Paul, Minn.
F. H. Crane | Canadian Representatives, WINNIPEG. | Vulcan Iron Co.

TO OUR FRIENDS, THE PUBLIC:
The Fairbanks-Morse Gasoline Engines in general, and the "Jack of all Trades" in particular, have become as well known to you as the stories of old, and as each day passes, the reliability of our goods and the almost unlimited purposes for which they can be utilized are more apparent to you.
In addition to the 2 1/2 H.P. geared base vertical gasoline engine, the traveling companion of the "Jack of all Trades," we now have a twin brother to the Jack, a 2 1/2 H.P. "Jack of all Trades." In a quiet way he has been introduced into all sections of the country; from the Yukon River to Mount Pelee, and today is doing all sorts of work for all kinds of people and making true friends of all with whom he comes in contact.



McLachlan Gasoline Engine

IS MOUNTED IN 5, 10, 15, 20 OR 25 HORSE POWER.



WRITE
THE
McLACHLAN
GASOLINE
ENGINE CO.,
LIMITED,
201 Queen St. E.,
TORONTO,

W. C. WILCOX & CO., WINNIPEG,
Agents for Manitoba and N.-W. T.



Wide-Tire Metal Wheels
FOR WAGONS
Made to fit any axle, of any desired height or width of tire. Are stronger, lighter and cheaper than wooden wheels. Just the thing for the farm. Our
QUEEN CITY
HANDY WAGON.

With metal wheels, is low and convenient for farm and general work. Made by skilled workmen, and of the best material. Guaranteed to carry four to five thousand pounds. Write for catalogue with full description of both Wheels and Wagons.
Dominion Wrought Iron Wheel Co., LTD.,
9 AND 11 BROOK AVE., TORONTO, ONT.

WALKERVILLE WAGONS
ARE THE BEST
Walkerville Wagon Co. Ltd.
WALKERVILLE, ONT.
WRITE FOR CATALOGS.

Ask For : : Ogilvie Oats

DELICIOUS FLAVOR.
FREE FROM HULLS.
WARRANTED PURE.

Put up in all sized packages.

Ogilvie's Hungarian

AS NOW
MANUFACTURED

The great FAMILY FLOUR.

Insist on getting "OGILVIE'S," as they are Better than the Best. Have no equal.

YOUR MONEY BACK IF YOU DO NOT LIKE Imperial Maple Syrup

Return it to the dealer of whom you bought it, who is authorized to give you your money back.

ROSE & LAFLAMME, Agents, MONTREAL.