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# THE FARMER'S ADVOCATE

AND HOME MAGAZINE

PERSEVERE  
SUCCEED  
FOUNDED 1875

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

PUBLISHED AT LONDON, ONTARIO. MAY 25, 1905. WINNIPEG, MANITOBA. No. 661

## Bell PIANOS AND ORGANS

ARE FAVORITES EVERYWHERE BECAUSE THEY ARE THE BEST

THE **BELL** Piano and Organ Company, LIMITED, GUELPH, - ONTARIO.

Catalogue No. 40 tells more about them. It is free to all who ask.

## Paterson's Wire Edged Ready Roofing



Don't cost as much as shingles. Made in Canada for 20 years. Fireproof and sanitary. Easy to put on. Hard to wear out.

Isn't that the kind of Roofing Material you're looking for? For sale by hardware merchants everywhere. Samples, testimonials and other information from :

**The Paterson Mfg. Company,** TORONTO. Limited, o MONTREAL.

## Melotte CREAM SEPARATORS



give entire satisfaction because they are built on the simplest mechanical principles. Compare its bearing with the top, middle and lower bearings of others.

WRITE FOR BOOKLET—do it now.

**R. A. LISTER & Co. Ltd.** MONTREAL

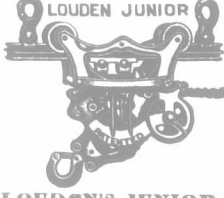
## HEOLA HEATING ENSURES COMFORT IN COLD WEATHER



The Heola Warm Air Furnace will warm your house with less fuel than you use with stoves, with less trouble and without danger from gas or dust. Our free booklet tells why. Ask for it, saying where you saw this ad.

Claire Bros. & Co., Limited, Preston, Ont.

## LOUDEN JUNIOR Hay Carriers



There are only two first-class in the market.

1st.—For Forks and Short Slings—**LOUDEN'S JUNIOR**

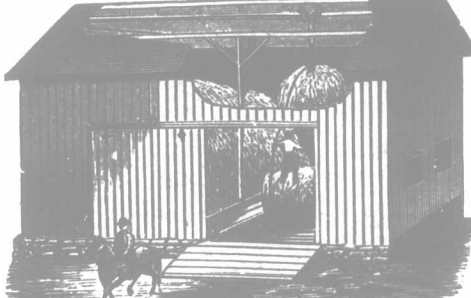
2nd.—For Long Centre Trip Slings—**LOUDEN'S JUNIOR SLING CARRIER.**

Our Double-headed Steel Track will always give satisfaction.

**LOUDEN MACHINERY CO.,** Guelph, Ont.

We make everything in the Hay Carrier line; in fact, everything for a barn or stable. Write for catalogues, circulars and prices.

## The Wortman & Ward Co.'s Hay Fork Outfits



have been in the market for upwards of 25 years and have always been in the lead. There are many thousands in use in Canada, and they are known from the Atlantic to the Pacific as reliable in every respect. Hundreds of them bought 20 to 25 years ago and are still doing as good service as when first bought. There are forks that are lower in price, but if an extra investment of only a few dollars will secure a rig that will last a lifetime, the extra expenditure is certainly in the interests of economy. Agents located in all the principal towns. Others wanted. Send for booklet with full particulars to

**THE WORTMAN & WARD CO.,** 541 York Street, London, Ont.

Be sure and use the Street No. with address.

## NORTHERN Business College

Owen Sound, Ont. Four complete courses of study. Best equipped Business College premises in Canada. The only Business College owning its own College building. A large staff of competent and painstaking teachers. Our graduates are most successful. Just ask them. Full particulars sent to any address free. **O. A. FLEMING,** Principal.

## Rosthern

The Center of the Finest Wheat-growing District of Saskatchewan.

The Finest Farming Country in Western Canada. A gentle undulating prairie with a deep, rich, black loam soil, with a clay subsoil. There is still some good land available in this splendid district. Don't buy or locate anywhere until you have written the Secretary of the Board of Trade at Rosthern, who will be glad to send you full information regarding location, yields, price of lands, etc.

## HIRST'S PAIN EXTERMINATOR

THE GREATEST PAIN LINIMENT KNOWN

## THE EXCELSIOR LIFE INSURANCE COMPANY.

HEAD OFFICE: TORONTO.

Insurance in force \$7,646,798 35  
Total Assets for Policyholders \$1,253,216 02  
security

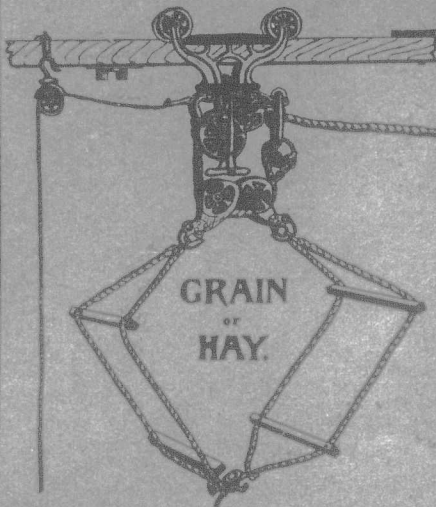
Best Company to insure in. Best Company for agents to represent. Agents wanted.

**E. MARSHALL,** Secy. **DAVID FASKEN,** President.

Stock Farm for Sale—Burnbrae Stock Farm, containing 149 acres, basement, barn, dairy, hen ice and engine houses, two dwellings, up to date in all respects, together with all thoroughbred stock, implements, etc. Holstein and Jersey stock for sale. Write for particulars. Apply **J. W. ROBERTSON,** Vankleek Hill, Ont.

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

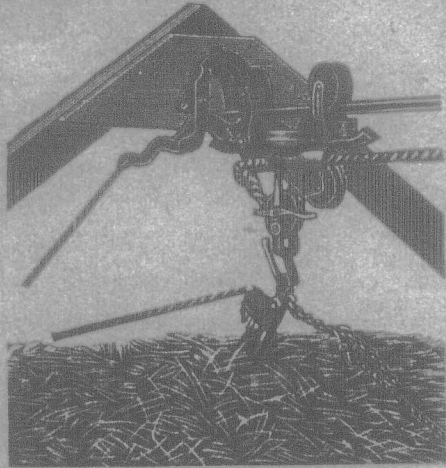
**Tolton's No. 5**  
IS THE BEST  
**Fork and Sling Carrier**



**12 REASONS WHY IT IS THE BEST:**

It is a Malleable Carrier, neatly fitted and positive in action. It is an Automatic Sling Carrier, and very easy on the rope. It is efficient in handling either Sling or Fork, and no trouble to change it. It is a Triple Purchase Carrier, when so desired. On account of direct action, it takes less power to lift the load than any other. It can be run into the mow at any desired point. It will unlock without any plunger entering the carrier. It has a leverage brake, and is a very durable carrier. The operator can unlock it whenever he wishes. It is very simple in construction, it has no springs to weaken or break. Its simplicity and strength insure certainty of action. Because of merit, we solicit your patronage.

**TOLTON BROS., Ltd.**  
P. O. Box 476-B, GUELPH, Ont.



**THE OSHAWA ROD TRACK CARRIER FOR 1905**

Manufactured by  
**THE OSHAWA HAY CARRIER WORKS,**  
OSHAWA, CANADA.  
Agents wanted in unrepresented localities.

**QUEENSTON CEMENT**

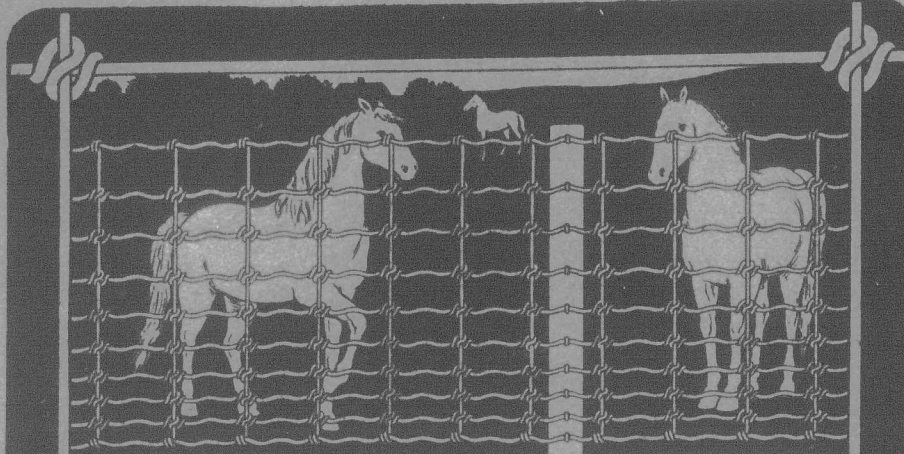
Sold direct from the manufacturer to the consumer.

Don't be misled by statements of agents handling cement paying large commissions. Go yourself and see Queenston walls and floors built in your own locality. Our barrel contains as many cubic inches as any other cement, and as cement is gauged by measure, not by weight, your cement will go as far. Write us for all information. Freight rates and estimates cheerfully given. 70c. per barrel, strictly cash, f.o.b. cars Queenston. Go in with your neighbor and get benefit of carload rates. o

**ISAAC USHER, Queenston, Ont.**

**BOYS FOR FARM HELP**

The managers of Dr. Barnardo's Homes invite applications from farmers, or others, for the boys who are arriving periodically from England to be placed in this country. The young immigrants are, mostly between 11 and 13 years of age; all will have passed through a period of training in Dr. Barnardo's English Institutions, and will have been carefully selected with a view to their moral and physical suitability for Canadian life. Full particulars as to the terms and conditions upon which the boys are placed may be obtained upon application to Mr. Alfred B. Owen, Agent Dr. Barnardo's Homes, 214 Farley Ave., Toronto. o



**The Railways Look to Permanency**

They are the largest users of fencing in the country, and investigate thoroughly the merits of the fence they use. More "Ideal" fencing is being used by the railways this year than any other make, demonstrating its superiority. Investigation has shown that it decreases the cost of maintenance.

Farmers who purchase "Ideal" are not experimenting. "Ideal" is made of No. 9 galvanized steel wire throughout.

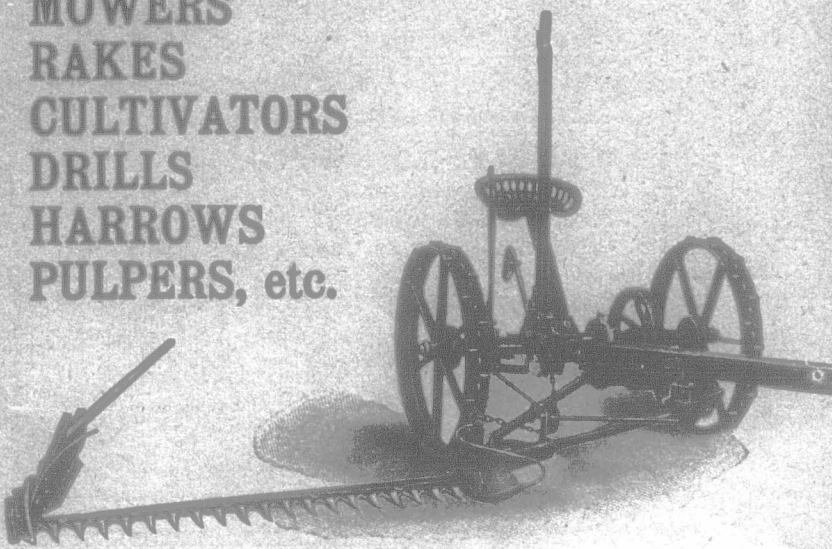
A postal card will bring FREE our Illustrated Catalogue of Fencing and Gates. Write for it to-day.

**THE MCGREGOR-BANWELL FENCE CO., LTD., Walkerville, Ont.**  
DO NOT EXPERIMENT. BUY THE "IDEAL."

**The Noxon Company, Ltd.**

MANUFACTURERS OF

- BINDERS
- REAPERS
- MOWERS
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- CULTIVATORS
- DRILLS
- HARROWS
- PULPERS, etc.

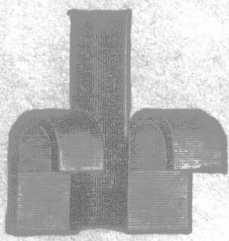


Noxon Front-cut Mower No. 3.

Agencies at all principal points, or write direct to

**THE NOXON COMPANY, LIMITED, - Ingersoll, Ont.**

**The Tie that Binds**



Anchor Clamp before using.

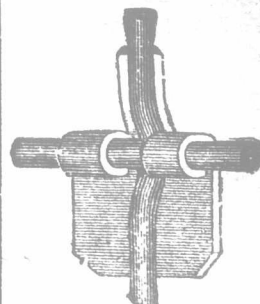
**ANCHOR Wire Fences**

owe their strength to the famous Anchor clamp. It securely fastens the cross wires and uprights, thus consolidating the strength of the fence. It can be constructed by any intelligent person. Write for information.

Agents wanted.

**Esplen, Frame & Co.,**  
Stratford, Ont.

**It Never Slips**



Anchor Clamp after closing

**The BEST Summer HORSE SHOW**

GUELPH, ONT.  
June 7th, 8th and 9th, 1905  
WEDNESDAY, THURSDAY, FRIDAY.

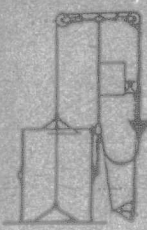
Enabling exhibitors to get home on Saturday.

**BIG PRIZES AND GOOD JUDGING**

Special rates on railroads. Send for Prize List to

**ALEX. STEWART, Sec.,** Guelph, Ont. o

**THREE NEW PATENTS FOR FARMERS**



**The Automatic Aerator.**

Driven by water. Will operate the whole night, and give to the milk its first quality.

**Stone Lifter**—Strong and durable. Can raise a stone weighing 1800 lbs.

**Snow Plow** for making roads in winter. Will do more than 25 men and make better roads.

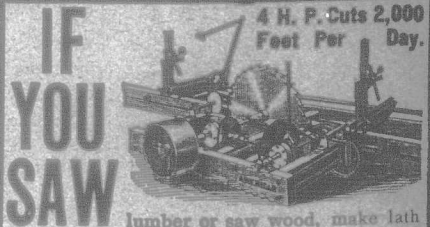
Address:

**A. LEMIRE,** Wotton, Quebec.  
OR  
**WM. L. AMIRAU,** 40 Lansdowne Avenue, Toronto.

**FARM LABORERS**

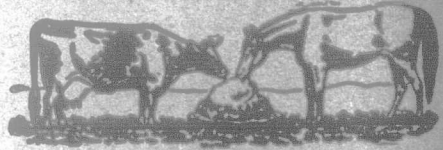
Farmers desiring help for the coming season should apply at once to the **Government Free Farm Labor Bureau.** Write for application form to o

**Thos. Southworth**  
Director of Colonization, Toronto.



**IF YOU SAW** lumber or saw wood, make lath or shingles or work lumber in any form you should know all about our improved **AMERICAN MILLS.**

All sizes saw mills, planers, edgers, trimmers, engines, etc. Best and largest line wood working machinery. Write for free catalogue and name of Canadian agents.  
**American Saw Mill Mch'y. Co.,**  
624 Engineering Bldg., New York City.



**BOOK SALT** for horses and cattle, in ton and car lots. o **Toronto Salt Works, Toronto.**

**Advertise in the Advocate**

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

# It's Easy To Wash



With the special stiff bristled brush which comes with each machine it takes about four minutes to wash the four simple parts that make up the bowl of the

## U. S. CREAM SEPARATOR

That's a big saving in time and labor over washing crocks and pans or the complicated bowls of other separators. The cleaning of the separator bowl is an important item, as it affects very materially the quality of the cream. Cream that has been run through an imperfectly cleaned separator does not bring the highest price, and cannot be made into the best butter. All the highest scores on dairy butter at the St. Louis World's Fair were won by butter made from cream skimmed by a U. S. Separator.

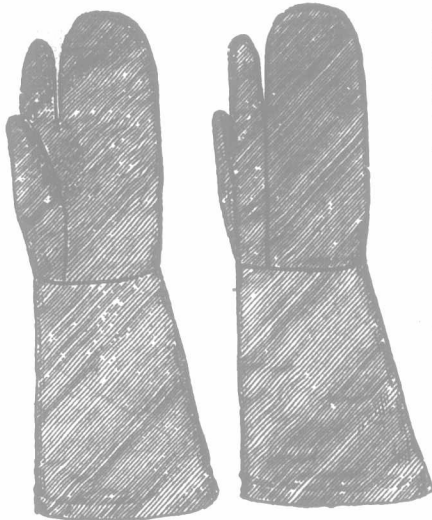
"Better butter" is only one of its many advantages. Our free booklet tells them all fully. Write for one to-day.

VERMONT FARM MACHINE CO., Bellows Falls, Vt.

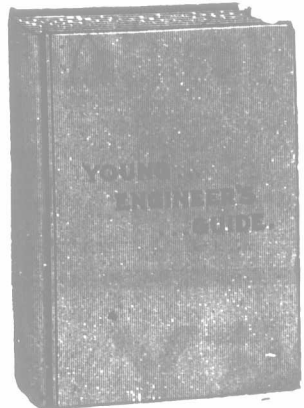
To ensure prompt deliveries and to save freight charges for our Canadian customers, we ship from our warehouses at Montreal, Sherbrooke, Hamilton, Winnipeg, Calgary and Vancouver. NO DELAY.

ADDRESS ALL LETTERS TO BELLOWS FALLS, VT.

### PRICES THAT BRING BUSINESS



Muleskin Feeder Glove, 75c. a pair.



Price, postpaid, \$1.00.

Every thrifty farmer requires clothes. We will send a well-made, complete suit (overalls and coat) for \$1.50. This suit is made from White Bros.' triple twist, double filled, heavy-weight blue denim. They are double-stitched with two-needle machine, are reinforced at points of greatest strain, and have patent riveted buttons. Sizes, 30 to 42 inch waist.

We also sell muleskin feeding gloves, one finger pattern, well-sewed and durable, 75c. per pair. Buck-kin, \$1 per pair.

Tank Pump Outfit, consisting of Barnes or Meyers pump, 20 ft. 2-inch wire-lined hose (N. Y. Belting & Packing Co.'s make) and 10 ft. of 1-inch discharge hose, for \$15.75. We sent out nearly 500 lengths of this wire-lined hose last season, and did not receive a single complaint. Complete set of rasps for Monitor Jr. Clover Huller, \$15.00; three-inch four-tone chime whistle, \$6.60; round bottom steel wagon tank, supported by steel frame, 10-barrel size, \$27.50; 12-barrel size, \$32.50; flat-bottom steel tanks very much less.

We also sell hundreds of books to threshers and engineers. We sell more of the "Young Engineer's Guides" than any other book. Other books: "Power Catechism," price \$2; "Farm Engines and How to Run Them," postpaid, 90c; "Rough and Tumble Engineering," postpaid, \$1; "The Practical Gas Engineer," postpaid, \$1. We also sell books on Carpentering, Blacksmithing, etc.

We also offer particularly good values in our Veteran Drive Belts. The 6-inch Veteran has 27 rows of stitches, while other makes have but 25 rows. The 7-inch Veteran has 31 rows of stitches, other makes have but 27 rows. The 8-inch Veteran has 36 rows of stitches, other makes have but 31 rows. The Veteran belts are also considerably heavier and stronger, and have the further advantage that they remain soft and pliable in cold weather. The filler compound used in them is a secret composition, and does not harden in cold weather, thus making the Veteran canvas belt as pliable as a rubber belt in winter.

If you need a drive belt this season, write us at once, and we will make you a price on a Veteran, delivered at your town, which will surprise you. If you require any other goods, such as a suit of overalls, a canvas cover, etc., we can include them in the same shipment, and will prepay the freight. Our 1905 catalogue, containing 100 pages, will soon be out. Send for it.

THE WINDSOR SUPPLY CO., WINDSOR, ONT.

### ADVERTISE IN THE ADVOCATE

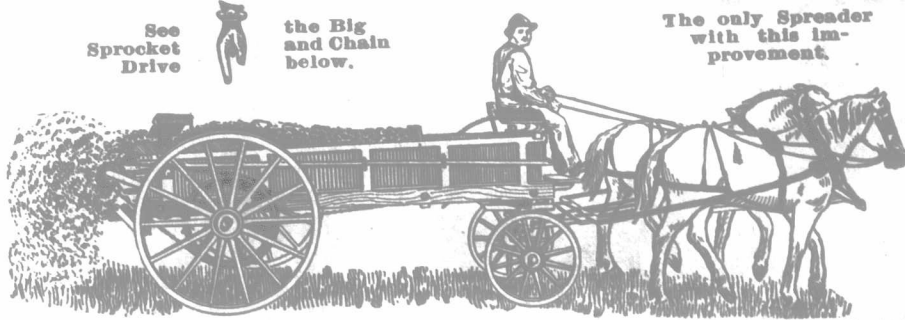
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## "Success" Manure Spreader

See Sprocket Drive

the Big and Chain below.

The only Spreader with this improvement.



The beater drive on the "SUCCESS" Manure Spreader dispenses with the complicated gears, pinions and sprockets found on all common spreaders—is more simple to operate, never gets out of order, decreases the friction, and therefore reduces the draft and saves your horses. Will last a lifetime.

No other spreader is equipped with this beater drive. And no other spreader has the many other improvements found on the "SUCCESS." We have hundreds of testimonials from leading farmers who have used it. Write for free booklet—it tells all about the "SUCCESS."

The PARIS PLOW CO., Ltd., PARIS, ONT.

Eastern Agents:

THE FROST & WOOD COMPANY, LTD., Montreal, Quebec, St. John and Truro.

Western Agents: THE STEWART NELSON CO., Ltd., Winnipeg, Man.



## Galt Sure Grip Shingles

cannot be dislodged by the fiercest gale that ever swept the "Hurricane Deck" of a Prince's Palace or a Cottager's Home.

Ripened experience of the rigors of this northern climate has passed judgment on the wooden shingle of yesterday. The shingle of the Twentieth Century must be better than wood—it must be metal, and metal only.

GALT SURE-GRIP shingles last a life time, and they're absolutely wind, storm, rain and fire proof.

The Classic Kids will tell you all about them.

GALT ART METAL CO., Limited, GALT, ONT.



## THOMAS EASY WASHER

Turns mother's drudge into child's play.

Rubs the clothes naturally—the way a woman does washing by hand.

Takes the dirt out of wristbands, neckbands, collars and cuffs, just as thoroughly as it cleanses blankets, sheets or pillow cases.

Has eight inches more rub than any other machine, and positively will not bunch the clothes.

The children think it great fun to operate it—no work.

If your dealer doesn't sell it, write

Thomas Brothers, Limited, - - - St. Thomas, Ont.

## Portland Cement

Farm Tiles, Culvert Pipes, Hard Wall Plaster, Calcinced Plaster, Land Plaster, Drain Pipes, Fire Bricks, etc.

ALEX. BREMNER, Importer  
50 Bleury Street, Montreal.

## Portrait of the Late Bishop Baldwin

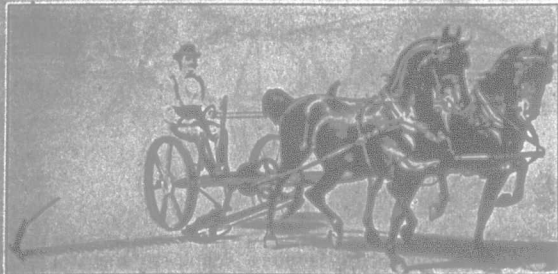
11 x 15, on heavy plate paper, suitable for framing, together with memoir, the funeral service and sermon on the occasion; price for the two, 25c.; 5 sets, one address, \$1.00; cash with order.

The London Printing & Lithographing Co., LONDON, ONTARIO.

STOP and THINK For a small cost you can have the desire for liquor or tobacco entirely removed. Call or write PROF. J. H. DUNN, 553 Colborne St., London, Ont. All communications strictly private. Consultations free.

## FOUR GREAT HAYMAKERS!

THE BEST LABOR-SAVING IMPLEMENTS FOR THE FARM.

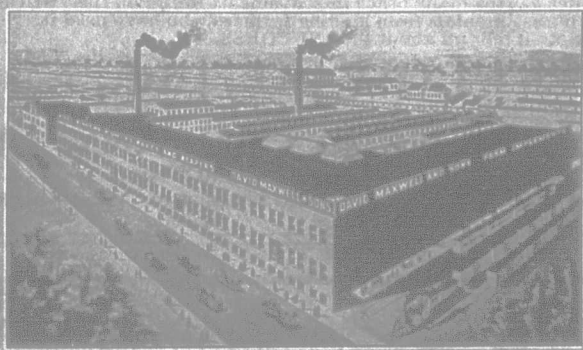


Maxwell Mower.



Maxwell All-Steel Tedder.

We Make  
a  
Full Line  
of  
Haying  
and  
Harvesting  
Machines.

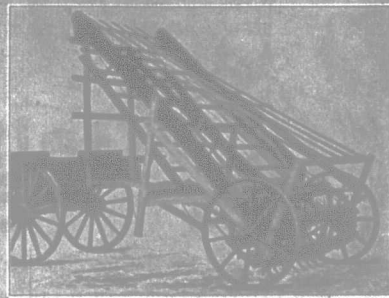


Where Maxwell Machines Are Built.

Also  
a  
Complete  
Line  
of  
Stock  
Raisers  
Implements.



Maxwell Side-Delivery Rake.



Maxwell Hay Loader.

If no agent in your locality, write direct to us.

**DAVID MAXWELL & SONS**

ST. MARYS, ONT., CANADA.

BRITISH COLUMBIA

## KELOWNA

The largest Fruit-growing Valley in the FAR-FAMED OKANAGAN. Apply to us for all information regarding Fruit and Farm lands, town and residential lots with lake frontage. Land at \$10 per acre up. Choice fruit lots in and joining town, ample water for irrigation. All information possible willingly given. Write for prices.

**CARRUTHERS & POOLEY,**  
Real Estate Agents. Kelowna, B. C.

## O.K. That's what DeLAVAL Cream Separators ARE

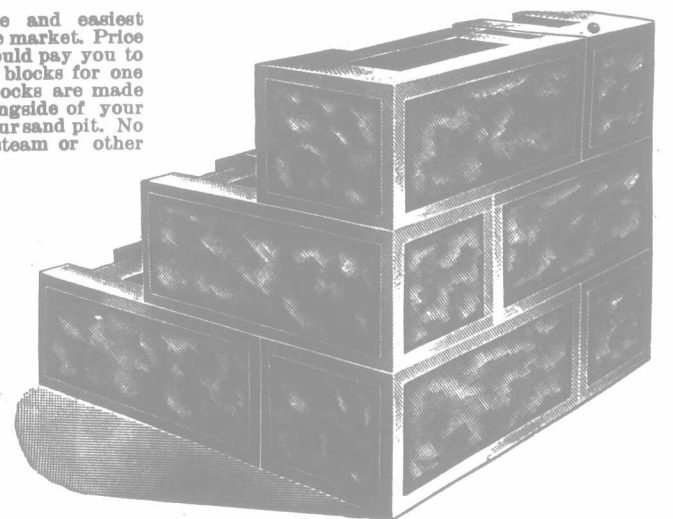
THE  
DeLAVAL SEPARATOR CO.  
77 York Street  
TORONTO  
WINNIPEG  
MONTREAL

## Dunn's Hollow Concrete Block Machine

Most compact, portable and easiest operated machine in the market. Price so reasonable that it would pay you to buy one if only to make blocks for one fair-sized building. Blocks are made out in the open air, alongside of your building, or down by your sand pit. No firing or baking; no steam or other power required. Skilled labor not necessary. Full directions furnished with machine.

MAKES BLOCKS for houses, bank barns and buildings of every description. Cheaper than brick or stone and much handsomer. Warmer in winter; cooler in summer; and indestructible.

Write for particulars to Dept. O. om



The JAS. STEWART MFG. CO., Ltd., Woodstock, Ont.

## If You Have a Farm for Sale

Or Want a Situation, put an Advertisement in our WANT AND FOR SALE COLUMN. Our Want Ads. Always Bring the Best Results.

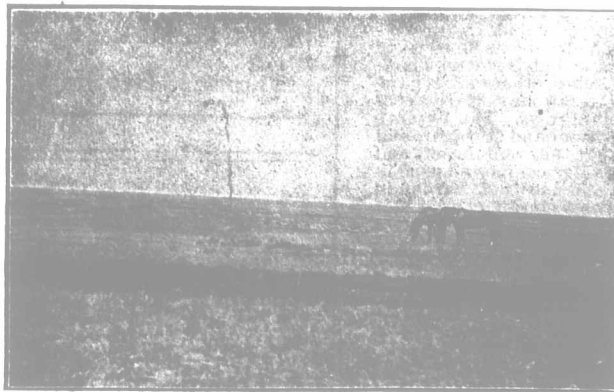
The William Weld Co., Limited, London, Ontario

## LAST MOUNTAIN VALLEY

Steamboat service now  
in operation.

Railway service to  
Strassburg by  
July.

WRITE FOR FREE  
BOOKS, MAPS, etc.



"OPENING OUT NEW FARM."

The finest Wheat Land in North-east  
Assiniboia. "A section is a  
fortune." Average crops  
for five years, 25  
bushels per  
acre.

**WM. PEARSON & CO.**  
WINNIPEG, MAN.

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

# The Farmer's Advocate

## and Home Magazine.

"PERSEVERE AND SUCCEED"

ESTABLISHED 1866

VOL. XL.

LONDON, ONT., AND WINNIPEG, MAN., MAY 25, 1905.

No. 661

### EDITORIAL.

#### Don't Let the Crust Form in the Corn-field.

In this issue we publish additional letters on corn cultivation, presenting the subject as viewed under a variety of circumstances, in order to suit everybody. It is noteworthy that practically all our correspondents prefer planting in hills (though many corn-growers use the two-horse drill to save time), and that with many of them hoeing has fallen into disfavor. With modern harrows, weeders and cultivators it is possible to stir the soil right up close to the plants, and nothing remains for the hoe but an occasional weed that has been missed. Hilling-up has so far gone out of date that nobody mentions it at all. The hoe has seen its day in the cornfield, and the corn-grower should plan to cultivate so thoroughly that hand work will not be necessary. At the same time, where weeds have escaped, it should be employed to complete the job and leave the field absolutely clean for the succeeding crop. The hoe is being followed, though none too soon, by the scuffler, which should be relegated to the purpose of going through once or twice after the corn is too tall to straddle with the two-horse machine. Life is too short to waste time doing with one horse what can be done twice as fast with two. With a good team a man can cover six or seven acres a day better and more easily than three with the walking outfit. The pottering done in many cornfields would be amusing were it not so costly. To grow corn commercially, we must have longer rounds and more economical methods of tillage. We must adopt better business principles and figure expense down fine. With this in mind, we have asked our readers to estimate the earning value of the time spent in cultivating. The figures, it will be noticed, vary widely, but all agree that it pays well. Just how much work can be profitably bestowed upon the corn, will depend upon soil, season, and methods employed. As in all intensive production, the more one cultivates, the less the proportionate returns from additional work, so that while everyone finds it necessary to do some cultivating, the man who adopts the most economical and effective methods can earn bigger wages and for a longer time than the man who follows old-fashioned expensive methods. Right here we would like to remark that, if farmers, while working in their fields, would think over questions of this nature, it would add wonderfully to the interest of their occupation, and prove far more wholesome and profitable than speculating upon murder trials, the election or the war.

It is astonishing what cultivation will do, especially in a dry summer. Two seasons, some years ago, we remember having corn drilled on late spring-plowed sod, that turned out to be so dry that only a couple of grains to the yard came up, and what did appear was belated and sickly. But the neighbors who pitied us in early June reckoned without the cultivator, frequent use of which kept down the grass, and by conserving moisture rotted the sod, and provided such a good supply for the corn, that the field where it had seemed scarcely anything would grow, turned into the silo twelve to fifteen tons of strong, well-eared corn per acre, while the following year an extra good crop of oats was raised without plowing. That result may be duplicated by anyone who has sufficient faith in the soil mulch.

While the subject is too broad to permit dis-

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cussion of all the pros and cons, we may give a brief outline of what may be considered an up-to-date system. After planting in hills 40 or 42 inches apart, use the harrow or weeder to cover any exposed kernels, and leave the ground nice and loose on top. Then, until the plants are two or three inches high, follow each rain with a stroke of the weeder, which, if used thus frequently, will suffice to keep the surface mellow and the weeds subdued. The effectiveness of the weeder depends upon its frequent use, as it is of no avail to break up a hard crust. When the plants are about three or four inches high go through with the two-horse cultivator, setting it down about four inches deep, to open up the soil to the air, induce deep-rooting of plants and prepare a deep, effective mulch. After this, alternate use of weeder and two-horse machine, followed at tasselling time with a light scuffing, will leave the field in friable condition and insure a heavy, profitable crop. Do not work deeply after the brace roots begin to be thrown out, else you will cut them off, and to a great extent prevent the plant from feeding in the rich surface soil.

Stir the soil often, and use judgment in the work. The man who cultivates by the calendar, once a week or once in ten days, makes a mistake. In an ordinary season, to produce a maximum crop, we require all the moisture possible, and to preserve the precious supply from evaporation, try to cultivate promptly after every rain. If obliged to use a one-horse scuffler, it will often pay to follow one side of the space one time and the other side after the next shower, thus stirring most of the surface twice. Send the cultivator through and through, and insist on a three-mile gait. Poking through the rows is unnecessary if the work is done often.

In cultivating corn or roots, one will not go far astray if he simply observes the rule not to let the crust form, especially about young plants.

#### A Daily Mail Service Needed.

As intimated in these columns, issue April 27, we consider that one of the urgent questions which should engage the attention of the Postmaster-General is an improvement of the rural mail service, among other respects, in the frequency of delivery to outlying offices. In many parts of older Canada, not the least of the factors depopulating the communities and militating against their progress, is the infrequency of the mail, which renders unnecessarily inconvenient the isolation of the farm, while in the West the loneliness of the settlers' lives is aggravated by the same cause. Meanwhile, Federal expenditures are piling up to the tune of millions a year for such questionable purposes that the Government's leading organ deems it necessary to direct attention to the disquieting fact. In these circumstances, while commending Sir William Mulock's laudable desire to square the accounts of his department, it does seem that a little more consideration for the public interest in the Post Office Department, and a little more economy in other quarters, would be a change in the right direction. No one approves more than we the importance of thrift in the disposition of public revenues, but there are greater achievements for statesmen than cutting down expenses. The rural mail service, above all things, should not be stinted, and one of our immediate needs is a daily delivery to every accessible office. So long as there are old-settled country districts obliged to put up with a semi-weekly or thrice-a-week mail, the annual surplus in the Post Office

Department must stand as an evidence of administrative parsimony.

Though not informed as to the Government's intentions in this matter, we are inclined to think some pressure will have to be exerted, and would suggest that constituents take the matter up, by demanding to know their representative's stand on the matter. Now is a good time to drop a line to the member. A few Parliamentary bees buzzing about the Minister's head would soon have the desired effect.

#### Race-track Gambling.

The members of the Canadian House of Commons who have been lending their aid to facilitate the operations of the horse-racing fraternity in Canada, by exempting incorporated race-tracks from the provisions of the Criminal Code against common betting-houses, should study the results of the race-track trust in the United States. A writer in the *Cosmopolitan Magazine*, and another in "Success," turn on the light of naked reality in articles on "The Delusions of the Race-track," and "The Race-track Trust," the latter being described as a "giant combination that has let loose an avalanche of misery, despair and suicide upon the country, sending thousands of men and women, old and young, to ruin." Under the fiction of "Improving the Horse," the "Ives Bill," a license to gamble, was enacted some years ago, and subsequently under the "Percy Gray Law," a N. Y. State racing commission was created, making a monopoly of race gambling. In order to get the measure through the Legislature, money flowed lavishly, and a five-per-cent. rake-off was thrown as a sop to agricultural societies. A number of agricultural members disgraced themselves by accepting the bribe. The story of the Race-track Trust is thus tabulated by the writer in "Success":

Gate .....	\$3,905,126
Bar and restaurant privileges .....	1,260,000
Gambling privileges .....	1,500,000
Programmes .....	300,000
Touts, etc. ....	25,000
<b>Total .....</b>	<b>\$6,780,126</b>
<b>Expenses .....</b>	<b>1,880,000</b>
<b>Profit .....</b>	<b>\$4,850,126</b>

Taking a wider view, the writer in the *Cosmopolitan* points out that in the United States there are fewer than thirty running tracks, and that the real object is not to improve even the ten thousand horses kept for racing, is seen in the fact that the contests are mostly for short distances, rarely more than a mile and a quarter, and oftenest about seven-eighths of a mile. It is simply a gambling machine, and as one eminent judge recently put it: "The race-track is directly the largest agent in recruiting for the criminal class." All the lowest elements in the community are to be found in the wake of the races. Here is how the *Cosmopolitan* writer sums it all up:

"There is not a horse that is the better for any purpose but short-speed spurts, because of race-tracks; there is not a penitentiary anywhere that is not the fuller by from thirty to seventy per cent. because of race-tracks and pool-rooms. There is not a man anywhere who owes or attributes any part of that in him which is honorable or reputable to racing. Racing does not improve the breed of the 'Thoroughbred.' Its whole root is gambling; its whole flower and fruit, crime. From the 'gentlemen' perjurers and violators of their oaths of office and of the laws that promote and protect it, down to the

## THE FARMER'S ADVOCATE AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN THE  
DOMINION.

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book-makers and pool-room keepers, and touts, and tipsters and thieves who live by it, there is only difference in shading of crime. And its baneful influence, its poison, permeates everywhere—into office and into home. What bloody butcheries of character and careers to make the race-track's smiling holidays!"

During the discussion on the Criminal Code amendment at Ottawa, Mr. Miller, M. P., (South Grey), pointed out that there is in this country plenty of gambling and gaming now, without endeavoring to promote it by Act of Parliament. There is gambling in stocks, with plenty of room for excitement and all the vent required for the gambling spirit, without adding to the present facilities for betting on horses. Mr. Clarke (South Essex), said he resided in a city where they had horse races and a great deal of betting, and there was no greater curse to the community than the race-track. The horse races were only incidental; the gambling and betting was the main issue. He knew of nothing that had ruined more young men than the race-track in that vicinity. It had been his duty to prosecute several young men in trusted positions, who had squandered the money of their employers on the race-track. He objected to the amendment, as there were enough means of fleecing lambs in the Dominion without conferring other facilities than exist at the present time.

### Do You Want a Situation?

WITH ONE OF CANADA'S LEADING FARMERS OR STOCKMEN? THEY ALL READ THE "FARMER'S ADVOCATE AND HOME MAGAZINE." AN ADVERTISEMENT IN OUR "WANT AND FOR SALE" COLUMN WILL NOT ESCAPE THEIR ATTENTION. SOME OF THEM WILL WANT YOU. TRY IT. SEE RATES UNDER THAT HEADING IN THIS PAPER. ADDRESS: THE FARMER'S ADVOCATE, LONDON, ONT.

### Have You a Camera?

In view of the popularity attending those in previous years, we have decided to have another camera competition, or rather six competitions, as follows:

A—Photographs of farm homes, showing house, grounds, trees, etc.

B—Photographs of orchards or gardens.

C—Photographs of buildings and live stock, or any farming operations in which people or animals are at work.

D—Photographs of interior views of rooms in houses, showing arrangement of furniture, kitchen appliances, etc.

E—Photographs of cheese factories or creameries, with surroundings.

F—Rural school and grounds, with group of pupils. In this section we particularly desire photos of schools where grounds and surroundings are well kept.

The prizes will be, in each section:

First prize ..... \$3.00  
Second prize ..... \$2.00

#### RULES FOR COMPETITORS.

All photographs must be mounted, and preference will be given to those not smaller than 4x5 inches in size.

They must be clear and distinct. In making the awards consideration will be given to the judgment displayed in the choice of subjects and to the suitability of the photographs for illustration purposes.

They must reach the office of the "Farmer's Advocate and Home Magazine," London, Ont., not later than July 15th, 1905.

The name of the competitor, with P. O. address, must be marked on the back of each photo, as well as the name and location of the view depicted.

Any competitor may send in more than one photo, but may not receive prizes in more than two sections, nor more than one prize in any one section.

All photographs entered for competition shall become the property of the "Farmer's Advocate and Home Magazine."

No photograph from which any engraving has been made is eligible for competition.

The latter part of May and June is the season par excellence for obtaining beautiful views of the various kinds for which our prizes are offered. Every Province in Canada and the adjoining States should be represented in this friendly competition.

## HORSES.

### The Height of the Hackney.

Says a writer in the Live-stock Journal, England: "There are, I am aware, lovers of the Hackney who are averse to increasing his height; 'the true Hackney,' say they, 'should range from 15 hands to 15 hands 2 in.—that was the original height of the breed.' True, but surely these gentlemen lose sight of the fact that many things have changed since the Hackney first flourished, when his duties mainly consisted in carrying his master, and often mistress, too, on visits to markets and friends; then height was immaterial, and a horse up to weight that could trot on and stay, was all that was required. But in these days the horse which is most in demand at a good price is without doubt the harness horse of from 15 hands 3 in. to 16 hands 2 in., sound, with abundant quality and action. Now, this the Hackney can produce; therefore, is it not more profitable to the breeder, and more in the real interests of the breed, to sacrifice a little of the old type, and at the same time to supply a demand which otherwise is met by the foreigner, than to adhere religiously to type and to breed nothing but 15 hands to 15 hands 1 in. horses, for which, should they not prove sensational show animals (and there are not many of these bred in a year), there is practically no market? A few days ago I had a conversation with a well-known London dealer on the state of the horse trade: 'Trade was never better,' he said, 'it is the horses, not the customers, which are difficult to find; I cannot get enough really good big horses 15 hands 3 in. and over, with action; there are any number of small ones, but I cannot sell them.' That the breed is not increasing in height as much or as fast as we should like to see, or indeed as we supposed to be the case, is the regrettable conclusion to be drawn from the following figures, if we take the mare and gelding

classes at the London Show for the past six years as representative:

	1900	1901	1902	1903	1904	1905
Mares and geldings over 15 h. 2 in. ....	33	21	26	39	30	23
Mares and geldings over 15 h. and not over 15 h. 2 in. ....	86	38	35	31	29	21
Mares and geldings over 14 h. and not over 15 h. ....				33	34	36

And it will be some time, I am afraid, before the entries in the big class outnumber those in the 15 hands to 15 hands 2 in.—that was the original Still, when we see such horses as the champion Diplomatist, Copper King, Forest Star, Walden Squire John, and Windle Swell, and such mares as Knowle Belinda, the reserve senior champion, Mr. Jay's lovely mare Knowle Halma, and Mr. Evans' two-year-old Allixaus (the three latter, I believe, all upwards of 16 hands), all proving uncontestedly that the Hackney can be bred big without any loss of quality or action, we should not despair of size in future generations."

### A Day with a Surgeon.

The wonders of the surgeon who operates upon human patients are constant topics of conversation, but critical and delicate operations upon the horse are less numerous. Something, however, of the immense possibilities of a practice of this kind is being realized in the West, where horseflesh is so valuable, and where it has been said the horse is considered one of the family.

Apropos of this subject, a few weeks before seeding time, a most successful veterinary surgeon announced that he would visit a small town in South-eastern Assiniboia for a day, and would be prepared to operate on horses for all diseases that could be cured by surgical means. The occasion was considered propitious for the relief of a large number of long-standing and chronic diseases. Navicular arthritis, sometimes called "contracted hoof," seemed to have baffled many attempts of previous treatment, and several horses were brought in for the surgeon to examine. Disorders in the teeth were also very common, and it was plainly evident that from the feet and teeth originated most of the ills to which horseflesh is due.

The surgeon began his day's operations by examination of a horse that had steadily failed in flesh, although having a good appetite. This horse had no evidence of disease, but an examination of his mouth showed that his grinders were not wearing true, and that the outside edges had become sharp and pointed, like saw teeth, cutting into the cheek very time he attempted to masticate. Nor was this all that caused the poor brute to suffer. One of the molars for some reason was growing faster than the others, and had worn down its opposite to the level of the jaw, and was gradually penetrating this also. Without any further preliminaries, the surgeon attached his powerful double-thread extractors to the offending member and cut it off, the horse scarcely showing a symptom of pain. The other grinders were then filed off smoothly, and the suffering animal was pronounced all right. Several other horses having teeth in all degrees of imperfection were brought forward, many requiring nothing more than filing, while others, which were interfering with mastication, had to be extracted. One very serious case of decaying teeth was brought in. The front molar in the upper jaw had decayed at the root, but the top remained sound. This gave rise to putrefaction at the root, and an escape for the pus had been formed upwards to the nasal channel. Through this canal a thick discharge had been running for two years. Without a moment's hesitation the doctor removed the affected tooth, which had by this time nearly decayed to the surface. This at once made an opening at the bottom of the cavity through which the pus could escape and drain; nature could then effect a cure.

Early in the day cases of the navicular disease were ready for the operation that would stop the benumbing pain that always accompanies this complaint. The symptoms of the disease are quite evident and characteristic. The horse has a "stilty" action in front, strikes his toes, the horn of the hoof becomes dry, brittle and contracted about the head, the muscles of the chest shrink, the horse lies down frequently when not at work, and several other indications are given of pain in the fore feet. Very little can be done by way of treatment for this disease, for the reason that its seat is within the hoof, but by a clever operation all sensation of pain in the foot is removed. Before operating the patient is thrown, and the hind legs secured, one nostril is then stuffed with cotton, and chloroform administered through the other nostril until the animal is unconscious, which may be from ten to twenty-five minutes. The surgeon then, after taking antiseptic measures, makes a short incision on the inner side of the forearm, a little

above midway between the knee and chest. He then examines for the nerve that conveys sensations from the foot to the brain. It is here that the greatest care is required, for the nerve, artery and vein are very similar in appearance, and lie quite closely together, and if the artery or vein were severed, instead of the nerve, all the surgeon could do would be to make some plausible explanation, and bear the humiliation of having his patient bleed to death. The operator, therefore, is careful to secure the nerve and make a test before he severs it. Then he removes about an inch from the lower severed end to prevent any possibility of union. After both fore legs have been operated upon, the chloroform is removed and the animal released.

Nerving, as it is called, in the forearm, is a comparatively new operation. Formerly, the nerve was severed in the neighborhood of the fetlock joint, but it was found that the operation at that point frequently interfered with circulation, which set up fatty degeneration, and eventually resulted in the loss of the hoof.

On the surgeon's day several operations of nerving were performed, and all were most successful, the cure being instantaneous, but the patient required a few days to regain its normal action.

Another operation performed by the surgeon, which very much resembled that for navicular arthritis, was that of severing a portion of a tendon to prevent stringhalt. In this operation, the animal is thrown and secured, but not chloroformed. A small tendon which operates one of the muscles that flex the hock was located below that joint, and a small portion of it removed. Very little pain is experienced in this operation, the tendon being near the surface, and not so sensitive as is a nerve. A complete cure is not always effected at once, for the reason that the surrounding tissues frequently adhere to the tendon and prevent it relaxing after being severed.

Among the patients brought in was a fine-looking gray gelding, sound in every way, except that on the outside of his nigh fore fetlock there was growing an immense double cancerous wart. This growth was of about the same consistency as liver, and was continually bleeding. It gave the animal considerable pain and annoyance. Here, again, the horse was thrown, and a sharp knife removed the wart, and cut away any traces of its growth. Such an operation necessarily caused considerable bleeding, but the searing iron soon stopped the flow of blood.

Spavin and sidebones, both of which troubles cause severe lameness, the former in the hind and the latter in the fore leg, demanded considerable of the surgeon's time. The treatment of these was to touch the enlarged parts five or six times with a red-hot iron, and afterwards shave the hair off and apply a blister. Firing, as it was done by this operator, was not the severe operation that some veterinarians frequently make it. The patients were not even thrown, and after the first flinch did not even notice the treatment. Firing, to be effective, need not extend into the flesh. All that is required is to burn the outer skin, so that the blister may be more effective.

In the course of the day, two cases of hip-joint lameness came under the care of the surgeon. The seat of the disease is in the hip joint, the juncture of the thigh bone and the cavity in the pelvis. It is located behind and below the hip bones. When a horse is suffering from lameness in this joint, he shows disinclination to put his foot to the ground. He swings, rather than flexes, his leg, and the muscles of the affected limb become shrunken. The treatment consisted in putting a seton over the joint. This operation was performed by making a small incision below and above the joint, then a large seton needle was inserted at the upper incision and removed at the lower one, thus, as it were, putting a stitch of linen under the skin. This linen is saturated with antiseptic solution daily and pulled upwards or downwards, as the case might be. By the action of the seton the parts are stimulated, thus effecting a cure.

With several such cases as enumerated above to treat, and numerous prescriptions to write, the surgeon was kept employed until nightfall, but his work was by no means done then, for during the day he had consented to visit several farms in the country to pronounce upon cases that were unable to travel to town for his treatment. Forty miles were traversed during the night, and upwards of a dozen suffering equines and bovines received the benefits of professional treatment, so that when the veterinarian retired in the small hours of morning it was with the satisfaction of having exhausted his strength in bringing health and comfort to a large number of faithful but suffering brutes. The above is a short review of what one veterinary surgeon did in one town. In the hundreds of towns throughout the country similar work might be done if veterinarians would attain the necessary skill in operating, and horse owners would look more carefully to the health and comfort of their stock.

**How to Throw a Horse.**

To thoroughly take the conceit out of a horse, there is no better way than to throw him. It certainly requires pluck and determination to throw a horse single handed, but if done, your horse is virtually conquered for good and all. To do this, put a good strong halter on your horse, take a strap with a ring in it and buckle it round the horse's off fore leg below the fetlock joint; take a rope eight feet long and tie it to this strap; place a surcingle round the horse's body; take up your position on the right side of the horse, bring the rope over the horse's back from the off side; take hold of the rope, and pull his foot to his body; take a firm hold of his foot, holding it in that position, then take hold of the horse's halter with the left hand, pull his head to you and press against his body with your elbow, using the words "Lie down."

The majority of horses can be thrown in this way in less than a minute, while others, of course, might fight longer. As soon as the animal has been thrown, take the rope that is underneath him, bring it under the surcingle and pass it through the ring of the halter, and back under the surcingle again, and thus you have the rope in position to bring his head over his shoulder. Make him put his head on the ground, and if he makes any attempt to get up, pull his head up immediately, which will prevent him from rising. This will give him thoroughly to understand that you are master. Once a horse realizes your power over him, he will do almost anything a horse can do.

**STOCK.**

**The Cattle Embargo.**

A subject that of late years has been frequently brought to our attention is the restrictions placed on our cattle when landed on the British Isles. It is certainly a matter worthy of consideration, and I would suggest that the "Farmer's Advocate" invite discussion along this line by practical farmers and feeders. There are pros and cons to every question, and no doubt the resolution passed by the Canadian Senate, declaring the embargo to be unfair and unjust, is the fruit of their own convictions.

A great many of our people are evidently not

would be benefited personally by freer access to the British markets at certain times of the year, but let us take a broader and more comprehensive view, and look beyond the present to the possibilities of our farms under a system of feeding the produce of the soil, and selling it in the form of well-finished products that bring the highest price.

Why is it that the average yield of the wheat fields of Great Britain is 33.8 bushels per acre, while in the United States the average is only 14.5 bushels, and other crops in proportion? Mr. James Wilson, U. S. Secretary of Agriculture, very sagely solved this question, recently, by allusion to these figures. Great carrying companies are building branch lines all through our fair Province—another indication of the visions in the foreground—and Ontario bids fair in the matter of manufacture and commerce to be to her sister Provinces what Britain has been to her colonies.

Then, let us also manufacture to a finish our beef cattle, instead of continually whining about those restrictions. And also let us see that the choice cuts of our Canadian cattle are sold in the retail markets of Britain as such, and not as prime States. My object in this letter has been to throw out a few points, hoping to see this interesting question, through the "Farmer's Advocate," receive its due share of consideration.

Waterloo Co., Ont.

J. H. WOODS.

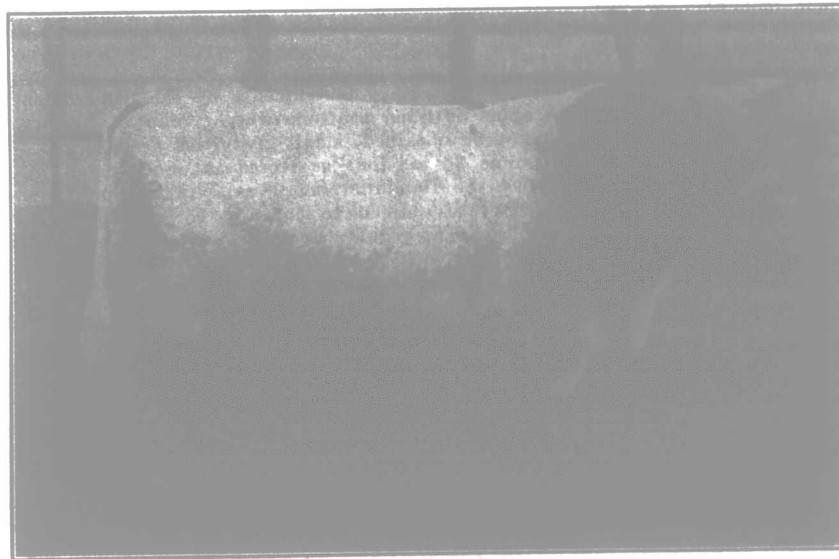
**Is a Two-pound Daily Grain Ration Enough?**

The question as to the best amount of grain, viewed from the standpoint of profit as well as from the usefulness of the cow, has been in review at the Vermont Station for five years. During the first three years the merits of low—four pound—and of high—twelve pound—grain rations were compared with those of medium—eight pound—feed. The outcome, speaking broadly, has not favored the heavier ration, which was fed at a loss. The four-pound ration, however, quite often proved as good as, or, viewed from the money standpoint only, better than an eight-pound one, when early-cut hay containing considerable clover and well-matured, well-cared corn silage were fed in fairly liberal quantities. Last year, for the first time, a two-pound daily grain ration was fed experimentally, and the trial has been repeated this year. While it was felt that this amount of grain was too small, there

were good dairymen preaching and practicing the doctrine of an extremely limited grain ration as an antidote to high prices for grains, claiming that when feeding more liberally they were not getting a dollar in milk for a dollar invested in grain. Hence it seemed wise to put the query to the cows. Twelve passed judgment on the proposition last year, and fourteen this year. The verdict handed up by the jury which tried the case in 1902-03 was that, "It seems fair to conclude that in these trials the restriction of the grain ration to two pounds was made at the expense of the animal's well-being and of the owner's pocketbook." There were, however, "extenuating circumstances" in the case, errors in feeding seriously curtailing data, poor silage, etc. Then, too, "no one trial can settle this

matter; the character, quality and quantity of the roughages used, and individuality of the cows, as well as that of the feeder, enter into the problem; in short, circumstances so markedly alter cases that the outcome of these trials, or, if confirmed by further tests, of several trials, would not necessarily be duplicated elsewhere by other feeders."

The experimenter's judgment in this matter was, "That in five-week periods some degree of success seems, in this year's trials, to have followed restricted grain feeding. It is further true that the testimony afforded by the continuously low-feed cows has not been unfavorable this year to the very low ration. Yet, notwithstanding, it is thought that the continued, month after month, year after year, stinted grain ration will not, in the long run, prove as profitable with the better grade of cows as will a more liberal one. Its effect on live weight, and on the persistency of the milking habit, must needs be unfortunate. One has but to scan the records of the cows who have continuously been thus lightly fed during the past two winters, to note the general shrinkage in live weight, and to see their relatively gaunt condition, to feel at least doubtful of the wisdom of feeding such very low grain rations to good dairy cows."



**Roan Conqueror (84519).**

Champion Shorthorn bull at the Royal Dublin Society's Spring Show, 1906.

aware of the fact that with the immense increase of our urban population, the home consumption of our beef has more than doubled in the last decade, and, although the restrictions were at one time injurious and unjust to us as a country, owing to the imputation of the existence of disease which does not exist, the embargo has, nevertheless, been a blessing in disguise. Speaking personally, I may say that I produce about 20,000 pounds of beef in the year, and I conscientiously assert, endorsed by scores of my neighbors, that if the restrictions were removed, and the produce of our lands exported in the raw state, it would mean a case of killing the goose that is laying the golden egg. If beef production is not a profitable business, why are so many of our cheese factories compelled to close down for want of support? Simply because the patrons have bigger returns from raising stockers and fattening them on the grass, the product of which formerly went to the factory. It is a well-known fact that in the last number of years the margin on stall-fed cattle has been small (about a cent a pound), but it is not the direct profit, but the indirect profit of increasing the fertility of our lands, that counts; for, as we sow, so shall we reap. No doubt there are some with large tracts of grazing lands who

### Ranting About the Embargo.

To the Editor "Farmer's Advocate":

Periodically the embargo anvil is hammered until the welkin roars, and everybody is much edified thereby. The Scotchmen, anxious to feed Canadian stores, jump on the Sassenack farmers (who, by the way, are all protectionists) and accuse them of discrediting, on the score of disease, the Colonial cattle.

So far as disease relates to cattle in Great Britain and Canada, all well-informed persons know that of the British pure-breds many of the Angus and Shorthorns are pretty badly infested with tuberculosis, and, also, that many herds fail to yield their normal annual increase, on account of contagious abortion; while in merrie Enland swine fever (termed in Canada "hog cholera") is always about. The score of disease, then, is not one on which the British farmer is very tender. Unless his stuff dies in droves, or an unkind meat inspector fetches him up short, he is quite hardened otherwise to disease, and the Colonial is lacking in respect who mentions the appalling rottenness of some British herds above a whisper. We recall how, on one memorable occasion, in Britain, a vigorous protest was made re the Canadian Government's tuberculin tests, and the sentiment was expressed that no foreign government should dictate to them how to keep their cattle. How the silly yokels applauded the promulgation of an idea which meant, in other words, that they (the producers) would say what the market must take—a violation of trade ethics so gross as to be laughable. But, aside from the bugaboo of disease in Canadian cattle, in the minds of the majority of Britishers, what are the benefits to be derived by Canadians from the removal of the embargo, and at what cost?

In the first place, the removal of the embargo on Canadian cattle alone (we do not believe it will ever come off to Canada, but if it does, we expect the U. S. will share also) would mean the resumption of the ninety-day cattle quarantine all along our Southern boundary, and the American invasion of immigrants would be stopped entirely—which would be a disaster to the Canadian West. In addition, a large force of inspectors would be needed, at a much-increased cost to the country—and where would be the gain?

The possibility of feeding range cattle, such as we see in the stock-yards at Calgary, Medicine Hat, Winnipeg, Schreiber, Montreal, and coming off the boats at the Birkenhead lairages, is not to our mind a rosy one; the docility essential is entirely lacking, and the insurance on lives of farm hands in Great Britain would at once become more costly.

As for the Eastern beeves, the people down there know enough to feed theirs to a finish; the land demands it. There are really no store cattle that Canada can afford to ship to Britain to be finished, but we will suppose everybody shipped their beef cattle as stores to the Old Country, and a big trade was established. If foot-and-mouth or some other bovine disease broke out in boats sailing from Boston or Portland, the store-cattle business would be at an end in 24 hours; and what a tremendous slump there would be in cattle, because the trend of business would again have to change from the marketing of stores to the marketing of finished beeves.

To our mind, for Canadians to excite themselves over the removal of the embargo is futile. They stand to gain practically nothing. The shouting Scotchmen have buildings and wharves, representing sunken capital, which they hope to raise by buying Canadian stores.

The need of Canada is the building up of a dead-meat trade, in which we can well afford to imitate the seniors of Buenos Ayres, who, as soon as they found they could not ship cattle to Britain on foot, embarked in the chilled-meat business on a big scale (vide J. A. Kinsella's report to the New Zealand Government), and are making a success of it. The dead-meat trade is the thing, and to it Chicago owes its reputation as a live-stock market. MANITOBAN.

### Picking Out a Cow.

A writer in an exchange says: "I have, first and last, picked out a good many cows, and have sometimes made expensive mistakes. I have also frequently succeeded in getting hold of a very good dairy animal. I have learned a few things about picking out cows that are of value to me, and may be to someone else. One of the things is that, where a cow can be purchased in the environs of a town, it is possible to learn something about her from neighbors. I frequently get on the track of a good cow by enquiring if there are any cows to sell in that neighborhood. The reply will be that So-and-So has a wonderful cow that gives milk eleven months in the year, and very rich milk at that. A good cow in a small place soon gets a reputation all her own. I approach the owner and offer the prevailing price. He, of course, refuses, and says he would not part with that cow under such and such a price, naming a price that he thinks high.

"But I, knowing that a good cow is worth a dozen times a fair cow and a hundred times a poor cow, do not regard the price as high. I look the cow over, milk her myself, and take some of the milk home to test. This I do by setting it over 'night in a straight glass. The method is a little crude, and a better way would be to use a Babcock tester, but the results are approximately correct. Even with a Babcock test a single test would count for little more than this test in an ordinary water-glass.

"In the main, I try to buy cows that are four or more years old, as at that time in life they have demonstrated what they can do as milk-producers. A heifer does not show what she can do, and I can't afford to experiment, when I can buy very good cows relatively cheap."

## FARM.

### Forecasting the Weather.

By R. F. Stupart, Director, Dominion Meteorological Service.

Frequently in the press and also in conversation it is apparent how very fallacious are the conceptions of the public of the work performed and the methods employed in the Meteorological Service of Canada, and also in Weather Bureaus of other countries. Some people seem to be of the opinion that meteorological forecasts—"probabilities"—are made from a study of the stars, and others again assume that the forecasts are simply guesses, based on a knowledge, we will say, that there is a storm somewhere on the continent, and that it is travelling towards a certain district at a certain rate of travel, and will, therefore, if nothing unexpected occurs, arrive at that district in an easily calculated time. Both of these conceptions are far wide of the truth, but as such fallacies are so prevalent, I shall endeavor to indicate clearly how meteorological forecasts are arrived at, and also point out some of the many difficulties there are to be overcome.

The Meteorological Office, familiarly known as the Observatory in Toronto, is under the Dominion Department of Marine and Fisheries, and is the central office for the whole of Canada. Records from every station in Canada are forwarded to this office; forecasts for every portion of the country, exclusive of British Columbia, are issued therefrom, and all observers are under the control of the Director at Toronto, who is in turn directly responsible to the Honorable the Minister of Marine and his Deputy at Ottawa.

There are 360 stations where meteorological observations are taken. In the majority of instances the observing is performed gratuitously, by persons who take an interest in such work, and who have been supplied with the necessary instruments by the Government, but at some outlying stations where voluntary observations cannot be obtained, small gratuities are allowed. Then at some 36 stations scattered at about equal intervals across the Dominion small salaries are paid; the observers are obliged to conform to certain regulations, to observe at regular hours, never omit an observation, and twice each day telegraph a report to the central office.

The telegraphic reports contain the following information: The height of the barometer (reduced to sea level in order that all stations shall be comparable), the temperature of the air, the weather, the direction and velocity of the wind, clouds, and rainfall, if any. These reports are forwarded from Toronto to the United States Weather Bureau at Washington, which bureau, in exchange (there is complete reciprocity in the weather reports), supplies the Canadian service with some 50 or 60 reports from various parts of the United States.

A very comprehensive meteorological chart is thus provided twice each day on which to base forecasts. The observations are everywhere taken at about 20 minutes before 8 o'clock, morning and evening, 75th meridian time, the instructions being that reports shall be filed at the telegraph office at the exact hour. At 9.45 the weather map is usually ready for the forecast official to issue bulletins.

As an example of his method, we will suppose that there is an area of low pressure over the State of Nebraska at 8 a.m. on a certain day; the previous morning—24 hours earlier—it was over Utah, and has since increased in energy. Now, it is obvious that if this area continues to move in the same course and with the same velocity it will pass across the Great Lakes, but the forecast official assumes no such thing; its previous course and rate of travel are simply two important factors to be considered in his diagnosis of the case; he does not assume either that it will continue in the same course or that it will continue to increase in energy; the relative position of other low areas and their probable effect on that over Nebraska must be duly considered; also the position of high areas and their probable effect on the various low areas; also the temperature prevailing over different portions of the continent must not be neglected, and due allowance must be made for its influence in producing rainy or dry conditions, as the case may be.

The official at Toronto endeavors to give the proper weight to each of the apparent facts, and then he judges as to what various movements and changes there will be during the coming 36 or 48 hours. Certainty is not possible in weather forecasts based on imperfect information, and in which the introduction of a single unknown factor in regions beyond observation, e.g., the

upper or middle atmosphere, may completely alter the course of events.

The problems to be solved in meteorology, considering the subject in a general sense, as well as with regard to the improvement of the daily forecasts, are numerous and intricate; unknown quantities abound; we are living at the bottom of the atmosphere; not all this bottom has been explored, and its ever-changing conditions as regards temperature are kaleidoscopic. Meteorologists all feel that the science of meteorology has not made an altogether satisfactory progress during the past twenty years, but observations have increased and multiplied, and good data now exist for testing theories. What hopes are there for the future?

In the Meteorological Office at Toronto, every cyclonic area which has passed across either Canada or the United States since 1871 has been carefully charted and studied, and it has been discovered that there is a very evident periodical shifting of the mean monthly tracks of cyclonic areas, and also a periodicity in numbers of storms, and the study of these facts and figures is pursued with a very cheerful hope that in the not distant future we may be able to connect the observed variations with solar phenomena. In a paper read before the Royal Astronomical Society of Canada four years ago, it was shown that there are strong evidences of the rainfall of Southern Ontario varying with the increase and decrease of sunspots; that the rainfall for two or three years immediately succeeding sunspot minimum is excessive, and that dry seasons then follow. The rainfall of the past three years has tended to corroborate this suggestion.

In Europe for the past few years much has been done in exploring the upper atmosphere by means of instruments carried to high altitudes by kites and balloons, and from these observations some very valuable knowledge of the upper currents and temperatures has been obtained. Then, again, there is ground for hope that the Solar physicist may render assistance in solving meteorological problems, but my hope in this direction is somewhat tempered by a belief that changes in solar radiation probably affect the earth's surface and atmosphere almost instantaneously, and that while it may ere long be possible to show with almost absolute certainty that changes in terrestrial weather follow solar changes, it is less probable that the solar physicist will be able to forecast changes in the output of energy from the sun with sufficient accuracy to assist the meteorological forecasts very materially.

The earth as viewed from the sun only subtends an angle of less than one-third of a minute of arc, a mere speck in the universe, and it is almost inconceivable that at any particular time different portions of the earth's surface can receive radiations from the sun of different kind and intensity, except as modified by latitude and atmospheric conditions, and yet nearly every year the weather of some portions of our globe varies greatly from the normal, while in other portions it is just average, or varies in the opposite direction. These facts indicate the complexity of the problems to be faced, and the writer is in accord with Sir John Eliot, the president of the sub-section of cosmical physics in the British Association meeting of 1904, who spoke in favor of a more systematic co-operation among the meteorologists of the world, and a central meteorological office for the Empire.

Sir Norman Lockyer and Dr. W. S. J. Lockyer, at South Kensington, have for some years been devoting much time and energy to solar research, with the distinct object of tracing the connection between solar changes and terrestrial climatic changes, and we in Canada hope that the Director of the new Observatory in Ottawa will also conduct some such research and assist in the good work already being carried on.

In every country of Europe, in Japan, in the United States, and in the colonies of our British Empire, men of the highest ability and of untiring energy are now, and have been for years, devoting themselves to meteorological research work, but as yet the main problem is unsolved, and without doubt it will only be by a generous co-operation between the physicist and meteorologist, that by slow degrees, little by little, our knowledge of weather changes will be increased.

The synchronous weather chart is recognized in all civilized countries as affording the best system for weather forecasting, and in the writer's opinion, for short-range forecasts it will never be wholly superseded by any other.

### Kent County Corn Growing.

To the Editor "Farmer's Advocate":

I will give you my experience in growing corn: The nature of our soil is clay loam and sand. We plant in hills 46 inches apart each way; three to five grains in a hill. Harrow once each way, with a Thomas smoothing harrow, slanting tooth if conditions are fit; that is, if land is well prepared and dry before corn comes up. Cultivate after corn is up three or four times with a John Deere double cultivator; first as deep as we can with fenders on to keep corn from being covered; to keep down weeds, conserve moisture, and assist in developing plant growth. I cultivate sometimes after ears are formed, and find the last cultivation pays in an increase of five to ten bushels per acre. I seldom hand hoe any lately, as help is scarce and high (I might add very poor, too).

I would say the success of a corn crop depends nearly one-half on cultivation, so that it pays to cultivate as often and as late as you can, and shortly after rain, as it hastens development and yield considerably, and pays every time.

FRANK SUITOR.

Kent Co., Ont.



### Dragging Muddy Clay Roads.

The system of either dragging or scraping clay roads bids fair to become more general. On the extensive highways of this country, maintained as they must be by a comparatively small population, macadamizing or even graveling is, in many cases, so expensive as to be out of the question. It is, therefore, imperative to adopt some cheap, effective means of keeping the dirt roads in good condition, and the plan which, according to the Farmer's Review, is being followed in many parts of the American West, is one originated by a Missourian, D. Ward King, who about ten years ago, made a drag consisting of two halves of a split log nine feet long, placed parallel on edge, one about thirty inches behind the other, with flat sides to the front. They are connected with three strong oak or hedge bars, the ends of which are wedged in two-inch auger holes bored through the timbers. Near the ends of the front log are attached the ends of a chain, to which the doubletree is attached, nearer the right side than the left, so that when in motion the drag is angling, and thus draws the dirt to the center of the road. After wearing a few months the lower edges of the drag may be shod with iron. The entire cost of making is estimated at \$1.25.

This implement is used when the roads are yet muddy after a rain. The strong point claimed for it is that, by puddling the clay at this time it quickly becomes hard, making a first-class road. So satisfactory have been the results of its use that neighbors have adopted it generally, and the Chicago & Western Railway, feeling the need of better roads along its line, hired Mr. King this spring, and equipped a train to go over much of its trackage in Iowa, making stops at various points to hold good roads conventions and to make demonstrations with the drag. According to reports, the plan commended itself universally, and the farmers in that State are likely to adopt it generally.

The principle of this drag differs from that of the scraper recently described, in that the former is intended to be used when the roads are at their worst, the latter when they are just getting dry enough to crumble. As to how they compare in effectiveness we cannot say, having had no experience with the latter; but as both are cheap, we trust some of our readers may see fit to try them and report results to us.

### Frequent Cultivation Pays.

In reply to your enquiry re our experience in corn cultivation, I will briefly outline the system we have found to be very satisfactory for the past number of years.

Our soil is a friable clay loam, which we find very suitable for growing heavy crops of corn. After the ground has been thoroughly prepared and the soil sufficiently warmed, we sow the corn in drills, 36 inches apart, sowing about 24 pounds of seed per acre. As a precaution against crows, we find it very effective to stir the seed with a stick coated with coal tar, or by mixing a small amount of coal oil amongst the seed.

Immediately after sowing, the ground is harrowed, and is harrowed every second day until the plants appear above ground. A weeder serves the purpose probably better than the ordinary harrow. After the plants appear the ground is harrowed again, and yet another time when the plants are about three inches high. After that, until the corn is about a foot high, the two-horse cultivator may be used, removing the teeth opposite the rows. Following this, the one-horse hoe, or sculler, is used at intervals of two or three weeks, until the corn is about five feet high. We cultivate deeply in the beginning, gradually getting shallower with each succeeding cultivation toward the end of the season. The objects sought to be gained by this constant cultivation are: Rapid growth of the corn, destruction of weeds and grass, and conservation of soil moisture.

We also hand hoe our corn twice; the first time when the plants are about eight inches high, and again when the plants are about two feet high, each time loosening the soil right around each plant.

I am a firm advocate of constant cultivation of the corn crop throughout most of the season, and I believe that for every additional cultivation there is an increase in yield far in advance of the value of the time spent in cultivating.

JOHN M. McCALLUM.

Perth Co., Ont.

### Corn Cultivation in Brief.

I find that corn does best on sandy loam, well manured. I plant about a peck per acre, in hills. For the benefit of the crows, I place in the field a number of eggs seasoned with strychnine, and also put sheets of paper here and there, one end being fastened and the other allowed to flap. If the ground gets hard before the corn comes up, I go over it once with a light harrow. After this I cultivate once a week, about three inches deep, with a one-horse cultivator, until it begins to tassle out. My objects in cultivating are to kill weeds and keep the moisture in the ground. We hand hoe twice when about six or eight inches up, and in August go through to cut out weeds, if any.

Elgin Co., Ont.

W. B. ROBERTS.

### Preventive Measures Against Corn Smut.

The soil on my farm is a clay loam, tile drained. Tile draining makes the land warm and dry for corn. I plant in hills 3 feet 4 inches each way. I mark the field with a folding marker, having four plank runners. I plant with a hand-planter, five grains to the hill, about 25 or 30 lbs. seed per acre. A man can plant five acres per day, and make a good job. We tar the seed before planting, to discourage the crows from pulling it up. A good scarecrow is a dead crow hung up on a pole in the center of the field.

As soon as through planting I go over the field with a very light set of diamond harrows made for the corn field, and if there is any corn not covered the harrow will cover it, and keep the crows from getting at it. It is an important point not to let the crows get any grains before the corn is up. Harrow again in about five days after planting. This keeps the ground mellow and the weeds down. Harrow once more as soon as the plants are through the ground, and at intervals thereafter till it is four inches high. Some may think it will harrow out some of the corn, but this is not so. The after cultivation consists in keeping the cultivator at work till the last week in August. Go through it once every week. Cultivate deeply while the corn is small—say till the first of July—then gradually more shallowly to the end. Be sure not to cut any of the fibrous roots.

You can't get corn without cultivation. It keeps the moisture in the soil and makes the corn grow. We hand-hoe all our corn twice. Hand-hoed and cultivated as above, the field will be sure to yield a good crop if the season is at all favorable.

Another point in corn culture is the smut occasionally found on tassel, stem and leaf. No very effective remedy has yet been discovered for dealing with this particular species of smut, but present knowledge of the disease enables us to apply the following preventive measures: (1) Do not plant corn after corn; (2) destroy as much of the smut as possible before it comes to maturity; (3) do not allow domestic animals to eat smut masses in the field, and thereby distribute living spores. It seems evident to me, however, that the smut may remain in the soil from year to year and affect succeeding crops.

ROBT. ARMSTRONG.

Kent Co., Ont.

### Five Dollars a Day in the Corn-field.

With a favorable season, a nice loamy soil gives the best profits for us. It takes the least work, and doesn't take so much to keep up the land. In a wet season a clay soil gives very good results, but when we have what we call a corn season, the clay soil is too hard. Sand, as a rule, has to be made very rich to produce a good corn crop.

I prefer planting in hills, so that I can cultivate each way. I would plant about 3 ft. 9 in. apart, and would use from six to eight quarts of seed per acre; three stalks in a hill are enough, if you can get it regular.

We are not bothered so much with crows as we used to be here in our district. The best plan is to shoot two or three and hang them up around in the field where they will be seen. Bright pieces of tin hung up around, so that the sun will shine on them, will also help to drive them away.

Soil should be in a good condition before planting, and I would harrow once with light iron harrow just as it peeps through the soil. Don't let the corn get too big before harrowing. I would cultivate each piece once a week; that is to say, go through it one way each week. We practice shallow cultivation, and don't cultivate when the soil is wet—it just seems to hoe the weeds, if there are any. We are going to use the Massey-Harris two-horse corn cultivator this year. I know of some who use the one-horse shovel-plow from start to finish, and their corn always looks clean and good. We have always used before the single cultivator and shovel-plow. If you can get through your corn once a week for six weeks, you will have a very nice piece of corn at the end. It depends a great deal on the soil as to how long you can cultivate. You can cultivate longer in sand than in any other soil. In sand the brace-roots of the stalk quite often run out into the center of the row, and need cutting off with the cultivator so that more strength will go up into the stalk or plant. In clay or loam soil the brace roots will keep in closer to the hill, and if these roots are cut off there it will be apt to injure the plant.

As for results of summer cultivation, I consider that I gain most of my crop, besides keeping the land in high state of cultivation and keeping the weeds down.

Hand hoeing is practically gone out of date. Farmers have too much to do to hand hoe, when they can do nearly as well with machinery by keeping steadily at it. If you had only a small piece of corn, and lots of time, I think it would pay to hoe once or twice.

I think by keeping my field well attended to, I can easily make 75% of the whole crop, without a bit of stretching. I think we would scarcely have a corn crop at all if we did not cultivate it. I believe that a man's time is worth five dollars a day easily in a corn field, and sometimes a larger loss is sustained if you can't get in when it needs attention.

Essex Co., Ont.

ORRIN ROGERS.

[Note—The old idea was to "run the cultivator down until the roots crack"—as if that were a benefit to the crop. The modern conception is that root mutilation is not the object of cultivation. Any root-

cutting done is an incidental evil, excepting that in the early season pruning of surface roots may help to induce deeper rooting, thus lessening the danger of injury by a succeeding period of drouth.—Ed.]

### Corn-growing in Oxford Co.

My soil is sandy loam, but I would prefer a gravelly loam for corn. I always check-row ear corn 3 ft. 4 in. each way, and sow fodder corn with an ordinary grain drill, stopping up all the grain tubes but two. I sow fodder corn at the rate of one and a half pecks per acre, and ear corn one bushel to seven acres. The ground should be deeply worked before planting; a good dressing of stable manure on sod land is preferable. After working up it should be rolled and harrowed, and on our soil we roll again, as our system of marking out requires either rolling or harrowing diagonally; the marking being done with a long pole, to which is attached light wires at proper distances, on which are suspended chains about one and a half feet long, to drag over the field both ways, then plant where the checks cross. If rolled before marking we harrow immediately.

I erect a number of poles with a bright piece of tin suspended on a strong twine to sway in the wind, and find it the cheapest and most effective scarecrow I have ever seen. The system of tarring the seed corn, in vogue in some localities, is not only filthy to handle, but very ineffective, as the crows will dig it up after the earth has taken off the effects of the tar.

Immediately after the corn is up so that the rows are plainly distinguished, harrow again—this is more quickly done than with any cultivator—then give frequent but shallow cultivation until the corn is in tassel; keep the surface of the ground clean and mellow; kill weeds if possible before they are up. The importance of frequent cultivation cannot be overestimated, even in extremely dry weather, and the land should always be stirred up after a rain.

We hoe twice during the season, drawing the earth each time towards the plants. Weeds should never be suffered to get any size in a corn field.

It is difficult to estimate the direct money value of cultivation. It depends upon the yield. Thorough cultivation will always give a crop, but the crop will vary with the best of cultivation, according to the season.

Corn must have heat above and below. I have seen corn turning yellow before it was in ear for want of moisture, which turned to a beautiful healthy green a few days after a thorough cultivation.

Oxford Co., Ont.

C. T. MIDGLEY.

### Elgin Co. Cultivation Methods.

Silos are very scarce in this neighborhood, and, consequently, very little corn is grown for that purpose, but a great deal is grown for the grain.

Our farm of one hundred acres is a clay loam soil, and well tile drained. As to methods of cultivating the field ready for corn, we always make it a point to fall-plow a stand of clover, not necessarily the first crop, but maybe a field from which a crop of hay has been taken. During the winter we top-dress, if it is not new land.

As soon as possible in the spring (after oats and barley have been sown) we start to work at our future corn field with disk, spring-tooth harrow and peg-tooth harrow, giving it a thorough cultivation, and working it as deeply as the implements will go. This extra work saves a lot of trouble after the seed has been sown.

After rolling the land we drill the corn in, in rows forty-two inches apart, sowing the seed at the rate of one-half bushel to the acre of Flint corn, and again we roll it. After it has sprouted we harrow it with a light harrow once only, and generally crosswise.

A great difference of opinion exists as to planting in hills or drills, but having tried both plans we prefer the drills, as we find it no harder to keep in good order, and the yield, both in fodder and grain, is much greater.

After the rows are distinguishable, we start the spring-tooth cultivator and the scuffers at work, and keep them going, getting through the field generally twice a week, until the corn gets to be such a size as to close in between the rows. Beside this cultivation, we hand-hoe it two or three times. All this cultivation means a great deal of work, but were we to dispense with that part of it, I think we would not need to look for any more than half a crop, particularly if the land is not new. I consider that a man and horse working in my corn field earns from two and one-half to three dollars a day every day they work. Besides, there is the pleasure of seeing a field entirely free from anything but what is intended to grow there. As to variety grown, our favorite is the flint variety—Compton's Early, Smutnose, or, maybe, the King Philip.

Elgin Co., Ont.

DUNCAN CARMICHAEL.

### Corn Cultivation in Grey Co., Ont.

My corn land is a sandy loam; method of planting, hills; quantity of seed per acre, one-half bushel or less. Cultivation consists of a light harrowing before the plants are up, and three or four scuffings three inches deep after they are above ground. I hand hoe once; this method requires very little hoeing. Objects in cultivating are to kill weeds and retain moisture.

Grey Co., Ont.

W. L. DIXON.

### Twine to Keep the Crows Away.

In the "Farmer's Advocate," of April 27th, the article by S., of Huron Co., contains much valuable information. All the conditions of his county, however, do not obtain the Province over. There is a difference in the soil of his locality and the soil of the farm where I find myself grappling with the corn problem. Our soil is clay loam or loam; the low lands, and not the high, produce more bountifully, and especially is this the case where the land is drained with tile. We prefer spring plowing, as it warms the soil, thus making the conditions more like those of the native land of corn to the south. There are, as yet, few silos here, the corn being allowed to mature, and in most cases is husked. Some people successfully feed the unhusked corn to cattle.

We plant in hills 42 inches each way. There is, perhaps, no one thing so injurious to success as uncertainty. The seed, therefore, should be tested for vitality before the planting season. In this way the percentage that will grow is readily ascertained before planting commences. The hand-planters are set to plant four grains of good vital seed in each hill; thus the vitality of the seed will cause the amount of seed per acre to vary. If vitality of seed proves to be 80%, then five grains per hill will be necessary. This requires about 18 lbs. per acre; 100% vitality would require only 15 lbs.

A string (binder twine) stretched around the field, where they can see it, will, in most cases, keep crows away; but crows seldom bother after cultivation starts. This is not true of blackbirds, which are not so suspicious, and must be treated more on the Japanese style (with shot and shell) during the preparation of the soil. In this way they are prevented from finding the corn until it has gained a considerable growth; but if allowed to follow the plow, to pick up worms, they become very bold, and when the corn grows they make themselves quite at home pulling it. It is a debatable question whether the blackbirds do more good in removing grubs and insects injurious to corn than they do harm in the amount of corn they pull.

One of the major elements in successful corn culture is preparation previous to planting. The soil should be thoroughly prepared; the ground should be marked straight, and care should be taken to have the planting done accurately. On the straightness of the marking and the accuracy of planting depends, to a great degree, the ease with which the subsequent cultivation may be done. The practice we follow is to place the corn, not in the hollow where marks meet, but in the corner just at one side. This leaves the young plant on level land, and the early cultivation does not cause the loosened earth to roll on the leaves of the young plants, as it would were the corn planted in the hollow.

It is a good practice to harrow with light harrow a few days before the corn breaks through the ground, and once after—the last time crosswise of the way it was planted. As soon as the rows can be followed, we commence cultivation with the one-horse scuffer. In early cultivation we cut very close to the young plants, so that when we have gone both ways there is no earth, except that on which the plants grow, that has not been stirred. The young plants, therefore, as they grow, are continually moving out into clean soil.

In the early part of season we cultivate deeply, and gradually get shallower, till merely the surface of the soil is stirred. We continue cultivating till the horse breaks off so many ears that the loss in grain is greater than the gain from stirring the soil. A piece of fly net fastened over the horse's nose prevents him from reaching for the leaves as he walks down the rows.

Deep, early cultivation loosens the soil, aids oxidation, allows deep rooting, increases capacity for holding moisture, makes plant food more easily available, and cleans soil of weeds. By cultivating once each week (and especially after rains) the crust is broken and a mulch formed which prevents rapid evaporation.

By shallow cultivation later in season this same end is gained, with the advantages of allowing the tiny root fibers to spread near the surface of the soil, while still destroying any germinating weed seeds.

It is not necessary to hand-hoe the corn to keep it clean—at least we find it so. Late in the summer it may be wise to run through field with the hoe and cut any straggling weed that has got too big for the cultivator to manage, but to hoe hill by hill seems wasteful labor. If the marking is straight and each hill is in its proper place, it can be kept very clean with the cultivator alone.

In regard to the amount of gain in the value of the crop for each day's cultivation, I have always considered it rather too costly an experiment to allow part of the field to go uncultivated to learn the actual value per day of the labor put on a corn crop. But, judging from some poorly-cultivated fields that have come under my notice, I conclude that the loss from lack of cultivation is considerable. The weeds and fowl seeds in such a crop would make it unprofitable to take as a gift.

Three ends, at least, should be looked for in growing a corn crop: The production of a good crop; cleaning the field of weeds; and leaving the soil well stored with available plant food for the following crop. How shall we reach these ends? I know of no better method than by a systematic cultivation, such as the one outlined above. J. P. JOHNSTON.

Elgin Co., Ont.  
[Note.—Ordinary white twine may be used instead of binder twine, and if strung up in time all around near

the outside of the field, and across in two or three places, the poles being further ornamented with pieces of shining tins from a tinsmith shop, will prove pretty effective in keeping crows away. Be sure to put it up as soon as the corn is planted, for once the birds get a taste of the softened kernels the game is up.—Ed.]

### Corn Cultivation on Spring-plowed Sod.

Our soil is a heavy clay loam, with the exception of a gravel ridge. We prefer clover sod plowed early in the spring, if possible, for corn. We never plant on fall plowing. The land plowed in the spring does not seem so sad underneath as the other, a condition which is detrimental to a corn crop. By plowing early in the spring a nice, fine mould can be obtained, with a moderately firm but porous bottom. The land seems warmer than fall plowing, and heat is necessary if a good strong plant is to be had. On the gravel it is best to plow early in May. This gives the weeds a chance to start, but the land does not get too solid. We disk our land if needed, but not too deep, because if too deep the mould will be light and dry; if the season is dry the corn will not germinate, and if wet this will seem to run together, forming a solid mass, preventing the corn from coming up. Our corn is all planted in hills, 8 ft. 8 in. square, planting four to five kernels per hill, which means one bushel on between five to six acres, depending on size of the kernels. We never count on cultivating corn until it is up, unless a crust is formed, and then it is gone over with a light set of harrows; care should be taken that no sods are left on the hills. As a rule, once over is all that is needed; if the land has been worked properly before planting, the weeds will not have made headway. Just as soon as the corn is well through, we commence cultivating with a double cultivator, going about 3 to 3½ inches deep, and as close to the corn as possible without cutting it up. If not cultivated close the first time a small bunch of weeds will be found at every hill, which afterwards cannot be cut or covered. It is cultivated like this, once each way, before haying, and often a third time. After haying we cultivate twice again, but only about two inches deep, and farther away from the corn. Often the last cultivating is done when the corn is tasselling out. By this mode of cultivation a good mulch is formed, preventing crusts, loss of moisture or growth of weeds. Hoeing is not necessary if the cultivator is used properly; we never hoe. As to the value of a day's cultivating, it is hard to estimate. The last couple of times we cultivate, I believe, an increase of one-third can be made between cultivating and not, at the lowest calculation. Placing the crop at 90 bushels of ears per acre, this makes the gain at 30 bushels of ears, or 15 bushels of shelled corn; valuing this at 40 cents, the gain on one acre is \$6.00. In one day one man will easily cultivate three acres twice, thus placing the day's work at \$18.

Kent Co., Ont.

CORN-GROWER.

### Rotation and Cultivation to Clean the Land.

I value the corn crop highly, not only for the grain and the stalks in feeding, but for the effect of the necessary cultivation in cleaning the soil; for eradicating thistles or other weeds, and especially for the persistent couch grass. I have found the following rotation most effective, provided the cultivation is thorough: First year, corn; second, beans; then wheat or other cereal, seeding down with clover.

For the double purpose above indicated, the hill system of planting is preferable to drills; the cultivation both ways reducing greatly the labor of hoeing.

In ordinary years, and in this County, the Dent varieties ripen well, but the last two summers were so cool that in many cases they failed to mature. Upon the whole, as I have not a silo, I prefer the flints; the yield of shelled grain is quite as much, and the stalks, if less in quantity, are eaten by cattle with less waste.

The stable manure may well be taken out as it is made in the winter, and spread at once, or as early in the spring as possible, and plowed under. The more the ground is worked before planting the better. Three feet six inches apart is sufficient for flint corn, and my choice of varieties is the King Philip, though Smut Nose and Compton's Early are good, and more common in this township.

I believe harrowing the ground once or twice after planting serves a good purpose in aerating the soil and killing weeds, but to do so after the plants are several inches high seems to be too hercule a process; at least for this loamy soil. Frequent cultivation is of great importance in weed destruction and conservation of moisture, but should become shallower and narrower as the plants grow and send out their roots. Hand-hoeing should be done twice if possible, and the sooner after the first cultivation the easier.

To estimate how much a day one can earn in increased yield by cultivation and hoeing the corn crop is not easy, but I should think four dollars a day for a man and team's work would be a moderate computation. Doubling the yield is a probable result of thorough work, while the benefits to future crops, the destruction of weeds and their seeds and the improvement in the seed for the next corn crop are additional rewards. A. C.

Elgin Co., Ont.

### Cultivates Three to Four Inches Deep.

For corn we prefer a sandy loam, for two reasons: It is warmer, and corn undoubtedly requires a warm soil; it is also much more easily cultivated, and while it is, perhaps, a drier soil than the clay loam, corn will, with regular and frequent cultivation, withstand a dry season better than a wet one.

We have always planted in drills thirty-six inches apart. We have never tried hills, as we have had excellent returns from the other method, and consider it much more convenient, both for planting and harvesting.

We have tried all manner of scarecrows—old cartridges which smelled of powder, flags, etc.—but the only thing of this kind which we have found to be of any use is the live man with the gun. After the crows have been fired at a few times, a man working anywhere within shouting distance of the field can keep all crows away from it. We have also tried scattering whole corn, and corn strung onto a string in the field, but neither saved the crop much, as the crows prefer the soft sprouted grain. We always hang up the dead crows, but I have seen crows repeatedly light within twenty feet of the stake on which two dead crows were hanging. Tarring the seed we have found to be fairly effective, but great care must be taken to see that the seed feeds evenly when tarred, and allowance must be made for the fact that it does not feed quite so fast. When tarring, we warm ordinary coal tar, and use just sufficient to darken every grain of seed, then dust it with land plaster. So far as I have seen the crows will not eat the tarred grain, and only pull up samples here and there over the field; but there is considerable inconvenience with it, and, as the crow season only lasts about two weeks, a little stalking with the gun in the early morning and at noon, with an occasional yell or clap of the hands during the day, is probably the best precaution.

Our only cultivation before the plants appear is a rolling and a stroke of the light harrows, immediately after seeding. After the plants appear, cultivation consists of scuffling with the ordinary scuffer twice a week until the plants are a foot high, and afterward once a week, continued until the stalks are five to seven feet high. We always scuffle as soon as possible after a shower, before the surface becomes baked, and consider three to four inches the proper depth to cultivate. Our objects in cultivation are to keep down weeds and to keep a loose mulch-like surface to conserve soil moisture. We have used the Breed weeder, but found it to be of very little use on a soil which is naturally loose and mellow. We have also used a spring-tooth cultivator for early cultivation, but prefer a scuffer, as you can get closer to the plants, and a cultivator is only better in that it is faster.

We only hand-hoe our corn when the soil is grassy, or a year when the stand is poor and we are anxious to make the very most of what we have. We have never hand hoed a crop more than twice, and usually only once. Considering the cost of labor, we think it more profitable to grow a slightly larger acreage and use only horse cultivation, as, with ordinary conditions, the advantage of hand-hoeing is only slight.

It is very difficult to place a definite estimate on the earnings from regular cultivation, but I would think it wise to pay any reasonable price for several cultivations with the scuffer. I am quite sure that at least fifty per cent. of the yield depends on cultivation; that is, as between regular cultivation and no cultivation, and I would not hesitate to pay a man two dollars a day for at least three cultivations of the crop.

Halton Co., Ont.

PERCY E. REED.

### The Crop Prospect.

In Western Ontario, Manitoba, and the Territories soon to be Provinces, spring opened early, the land worked uncommonly well, and seeding of grain was finished in many places in April or early in May. In the sections named, however, there had been comparatively little rain, and but little warm weather up to the middle of May, but there was sufficient moisture in the land to effect full germination of seeds, and, owing to absence of heavy rains, there was no packing of the soil or crusting of the surface, consequently the stand of plants is very even, while frequent showers lately have made the prospects for good crops exceedingly encouraging. Pastures and meadows are making excellent progress in growth. Corn, in districts where it is grown, has been planted in good condition, and many farmers have sown their mangels under very favorable conditions. In Northern and some Eastern sections of Ontario seeding was two to three weeks later than in the West, and heavy rains have delayed the work so that the grain seeding is not yet completed. In the Province of Quebec the spring has been favorable for farming operations, and cattle had generally gone to pasture before the middle of May. The Maritime Provinces, owing to an uncommonly severe winter with heavy snowfalls, are experiencing a late seeding, but there is encouragement to expect a better summer season than last year, when drouth rendered the crops light and the year rather discouraging. Reports from British Columbia indicate a satisfactory outlook for the farmers, fruit-growers and dairymen. On the whole, the prospect for the year is roseate throughout the Dominion, and with the large immigration of

working people this spring, the tension experienced last year from the scarcity of farm help has been considerably relieved, and when these people become accustomed to the ways of the country, it is hoped that many improvements may be carried out that have been delayed owing to the labor problem.

DAIRY.

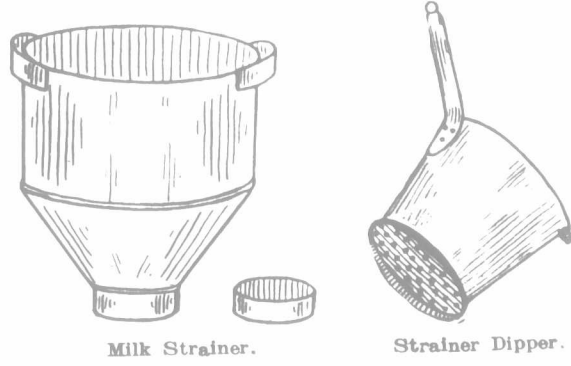
The Farm Dairy Outfit.

By Laura Rose.

The dairy outlook to me seems especially bright. Prices are high, and both the home and foreign market good. With increasing intelligence and skill, the quality of Canadian dairy products will gain further excellence, and this will create a larger demand. The general prosperity and refinement of the masses will also swell the demand for the choicest dairy products, and give ability and willingness to pay advanced prices for fancy cream, butter and cheese. Higher education will also make the consuming public better appreciate the food value and relative cheapness of milk, butter and cheese—a fact that is not so well understood as it should be.

This bright prospect for the dairy business should encourage farmers to make some outlay toward a better equipment. Butter is very expensive, compared with churns, workers, etc. You must not spoil your product for lack of the right utensils to work with. Just as a business man must watch the market to take advantage of the ½c. a pound on the article, that he may successfully compete with his competitors, so must you be on the alert to use every possible means to give that extra finish to your butter, that it may command just a little bit more than the best price going. It is a struggle in which energy and skill will tell for a great deal, and you will have solid enjoyment in every point gained. Many a woman has told me she always gets five cents a pound more than the market price for her butter, and her real pleasure comes more from the pride she takes in having such a

town with a No. 2 barrel-churn in the back of his wagon, and I said to myself, "Unless that man has only a cow or two he is making a big mistake in buying a small churn." If I had only three cows, I would get a No. 3 churn. The larger the churn and the smaller the quantity of cream in it, the lower the temperature at which you may churn, the quicker the butter comes, and the more exhaustive the churning. I prefer a barrel-shaped churn with no dashers or breakers inside. If I had large churnings I would contrive to have some kind of power to run the churn.



Milk Strainer.

Strainer Dipper.

Where creamers are used, or the milk sent away in cans, the strainer here shown is a good one. Have it 12 inches across at the top, and 5 inches at the bottom. It may or may not have a brass wire bottom. Have a tin band large enough to slip easily over three or four thicknesses of cheese cloth, when placed over the bottom of the strainer. The cloth must be taken off and well washed after each time of using.

If you have never used a strainer dipper in your dairy work you have missed a great convenience for straining the cream into the churn, straining the buttermilk from the butter, holding the cheese cloth to strain the wash water into the churn, etc., etc. If the following directions were given to a good tinsmith, he should make you an extra nice one for 40c. or 50c.: Nine inches across the top, seven inches across the bottom, six inches deep. The bottom should be of strong perforated tin—the perforations one-sixteenth of an inch across. A strong flat handle 10 inches long, and a small piece of double tin at the opposite side to act as a lip to keep the dipper from sliding into the churn, completes the dipper. A dipper of similar size, with a tin or copper bottom, is just fine for either the dairy or kitchen.

The little cream stirrer is as excellent as it is simple. By an up-and-down motion it thoroughly mixes the cream from the bottom to the top. The little tin saucer is between three and four inches in diameter, and the tinned wire handle about twenty inches long.

I cannot but wonder when I hear people still say, "My finger is my thermometer." No reliable work can be done without thermometers, and one should appreciate the fact that they are so cheap.

I really believe that the stooped shoulders of some of the farm women are the result of working pounds upon pounds of butter in the butter-bowl with a ladle. It is work that I do not want to again attempt. Every woman who is making any quantity of butter should have a lever butter-worker. It is not expensive to buy, but a handy man can make a better one than can be bought. For handling the butter when working and printing it, a flat spade, like the one shown, is much handier than a ladle.



Butter Worker.

No print seems to hold the same flavor as the brick-shaped mould. In buying, do not get a cheaply-made one, and be sure to keep it set to hold a pound of butter.

For preparing the wooden utensils, use small fibre scrub-brushes, and have a long-handled brush for the deep can and pails. The dish-cloth should be discarded in cleaning such ware.

A contrivance which so many city people have, and so many country people do without, is a refrigerator. Nearly every farmer puts up ice, and it would only mean the cost of the refrigerator. It is not much trouble to look after, as it only needs filling with ice two or three times a week. If kept in a room off the kitchen, the steps it saves to the cellar cannot be estimated.

Cream kept in one runs no chance of becoming sour, or too warm for churning, and the butter may always be firm.

Better to have less money in the bank and more labor-saving devices in the home. The following is a list of utensils and supplies, with approximate prices, for a well-equipped small farm dairy:

No. 3 barrel churn	\$5 50
Lever butter-worker	3 00
Butter spade	15
Good butter-print	40
Thermometer	15
Large strainer dipper	40
Large dipper	35
Long-handled dairy brush	40
Small fiber brush	5
Five-gallon covered cream can	1 00
Cream stirrer	15
Two large pails	80
Milk strainer	50
Two shallow tin pans	20
One thousand sheets printed parchment paper	1 90
Salt (100 lbs. best dairy)	1 00
Butter color	25
Cheese cloth	10
Scales	8 00
Four-bottled Babcock tester (complete)	6 50
Cream separator (850 lbs. capacity)	75 00

Quality of Butter at Cream-gathering Creameries.

To the Editor "Farmer's Advocate":

Sir,—That the quality of the butter made in the cream-gathering creameries in Western Ontario is not so fine as it should be, I think is admitted by nearly all those immediately in touch with the trade. The question arises, first, can those interested in the production of the cream and the manufacturing of the butter afford to produce goods that are not finest? 2nd, What is the cause, and who is responsible for it?

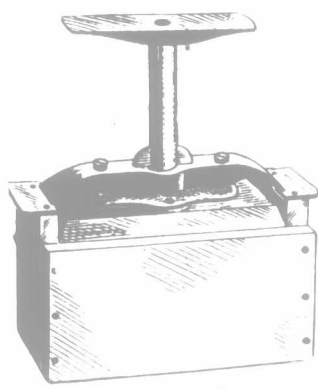
In answer to the first, I would say they cannot. It costs just as much to manufacture one hundred pounds of second-class butter, as it does one hundred pounds of first-class butter. The labor, fuel, time, tear and wear of the machinery are the same in both cases. The reputation of the creamery depends upon the quality of the goods produced, and according to the reputation will be the patronage. The better the reputation the larger the patronage; the larger the patronage the greater the profit to the manufacturer.

How does inferior quality affect the patron? The patron's share is what is left after the price for manufacturing the butter and hauling the cream is deducted from the selling price of the butter. The price for manufacturing a pound of butter that has a rank old-cream flavor will be just the same as for a pound of fresh, clean-flavored butter, but the price that will be paid by the buyer will be from two to four cents less. It is easily seen how it affects the patron.

What is the cause of the butter not being of a fresh, clean-flavored quality? There are several, but the main causes are, thin sour cream and lack of proper facilities at the creameries for rapid cooling of cream. I have never been able to understand why farmers who are patronizing a creamery because they want the skim milk at home for their calves and pigs, will persist in sending tons of skim milk off their farms yearly by skimming a thin cream. For example, and for convenience, we will estimate that cream testing 100 by the oil test equals 22 per cent. by the Babcock test (which is nearly correct).

A sends 100 pounds of cream testing 180 oil test or 28.6 Babcock test; he sends 71.4 pounds of skim milk to the creamery. B sends 100 pounds of cream testing 60 oil test or 18.2 per cent. Babcock test; he sends 86.8 pounds of skim milk to the creamery, which means that in every 108 pounds of cream he sends off his farm he is sending 15.4 pounds of skim milk more than A is, and besides this, he is liable to spoil the quality of the butter at the creamery, because thin cream will sour much faster than will thick or rich cream. This fact may be just what some patrons want, as they think by having their cream sour they will get a better test by the oil test; if they do, which is doubtful, they will lose more than they will gain in the churning of the cream and the quality of the butter.

This is where the oil test is an injury to the butter industry. It is putting a premium on sour cream, while the Babcock test puts a premium on sweet cream, as sweet cream will always test higher than if it is allowed to get sour. More butter can be made per pound of fat from rich cream than from thin, because more moisture can be retained in the butter. Hence the necessity of having a thick cream and keeping it sweet. To keep it sweet, keep it cool. The cooler it is kept the longer it will remain sweet. There is no doubt that it would pay creamery-men well to get a cooler that would cool the cream rapidly while it is being delivered into the creamery, and in this way retard the development of acid in the cream after it is delivered at the



Butter Print.



Cream Stirrer.

commendation shown her butter than in the extra money she receives.

The road to successful dairying is open to all, but it is a thoroughfare that is not likely to become overcrowded. There is too much hard work and personal supervision in it for the average person. You know it is the sin of idleness that makes a great many men poor. Wealth is usually the result of incessant diligence—at least, the man who has amassed thousands in the dairy business can truthfully say so.

It is the poorest economy to use dilapidated, out-of-date utensils. Not having a proper equipment results in lack of interest in one's work, more labor, extra loss, and very often, inferior goods. Good judgment is required in the purchase and care of dairy equipment. One should be prudent in buying expensive machinery. The test question should be, "Will it pay back its cost and good interest thereon during the time I may expect it to last?" If not, then do not buy it. Labor-saving devices now seem a necessity, and the farmer who wishes to keep pace with the times must have them. Many debate the advisability of buying a separator, looking at the cost as being beyond all the gain to be derived from investing such a sum of money. But a careful study of the problem would likely convince such people that a separator would be a wise outlay.

A Babcock tester is something which the shrewd dairy farmer cannot afford to be without. It is not a difficult machine to learn to use. A lesson from one understanding it and a little reading up on the subject of testing is all that is necessary. Weighing and testing the milk from each individual cow in your herd once a month, gives a very good idea of the relative value of the cows. The Babcock tester is the best revealer of leaks that I know of. Test the skim milk and buttermilk, and see if exhaustive work is being done. Butter-fat is too expensive to feed to stock. A four-bottle tester, complete, can be purchased for about \$6.00.

The other day I saw a farmer going out of

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creamery. To improve the quality of our cream-gathering creamery butter the patrons must realize more fully the important part they have in producing rich cream, testing at least 180 oil test, or 30 per cent. Babcock test, and that the cream must be kept clean and cool—50 degrees. The creamery men will do well to adopt pasteurizing and cooling the cream; also the use of the Babcock test instead of the oil test.

GEO. H. BARR, Chief Instructor.

Western Ontario Dairy Association Office.

### The "Leclair Process" Butter Appreciated in France.

Upon his return from the St. Louis Exposition, Mr. Louis Dupont, proprietor of the large butter-exporting house, of Isigny, upon the recommendation of Prof. Leze, stopped off at Ste. Hyacinthe, Que., to visit the Dairy School. Apparently being greatly interested in the new process of buttermaking inaugurated by Prof. J. D. Leclair at the dairy school, an offer was made to Mr. Dupont to send to him after his return to France a sample of this butter, so that its keeping qualities might be judged. Mr. Dupont having gladly accepted this offer, three pounds of butter was sent from the dairy school by mail on the 29th day of last December. This butter was made at the school during Christmas week according to the Leclair process, from milk that was more or less old. This butter was unsalted; it was put up in one-pound prints, and wrapped in parchment paper which had been well soaked in a brine preservative solution. The following are the criticisms of the butter experts belonging to the Dupont firm.

Butter from Ste. Hyacinthe, Que., Dairy School. Received and tested at Isigny, January 14th, 1905. Opinions of the butter buyers:

1. Mr. Jules Lerchais—Body, firm; aroma, neutral; flavor, good butter flavor, without delicacy, but agreeable to the taste. We detected a slightly cooked flavor, due to the pasteurization of the cream, as well as a slightly saline taste, probably due to the handling of the butter in salt water. Keeping quality, very good.

2. Mr. Antoine Jardin—Body, oily; aroma, neutral; flavor, quite agreeable, slightly salt, without delicacy; keeping quality, perfect.

3. Mr. Henry Jardin—Body, firm; aroma, agreeable; flavor, salt, good, agreeable; keeping quality, good.

Mr. Dupont himself was away when the butter arrived, but wrote on Feb. 1st, 1905, to the secretary of the Ste. Hyacinthe dairy school as follows: "Your sample of butter arrived during my absence, and was submitted upon its arrival to examination by several butter-tasters of our firm, whose criticisms I send you herewith. I tasted the butter myself upon my return, and found the flavor good, but not so delicate as that of our Isigny butters. I discerned plainly that great care had been exercised in its manufacture, and that above all, with regard to its keeping qualities, you have obtained perfect results."

Considering the time of the year when this butter was made, the opinions of Mr. Dupont and his experts must be considered as most flattering. It is not to be expected that in the heart of the winter, with milk from spring-calving cows, stall-fed, that we can produce so delicate a flavor as the Isigny butters possess.

H. WESTON PARRY.

[Note.—The method of sweet-cream buttermaking, as practiced in winter at the Ste. Hyacinthe creamery, necessitates the use of a ferment. The process may be summarily described as follows: The newly-separated cream is put into a vessel placed in a pan of hot water. It is kept there, being stirred continually until it has reached a temperature of 140 to 175 degrees F. It is then taken out and placed immediately in iced or very cold water until cooled to 50 degrees. The evaporation during the cooling is supposed to purify the cream by ridding it of malodorous vapors. The cream is then poured into the churn and the ferment added. The churning should occupy, in winter, about 50 minutes. In factories the amount of cream is referred to a certain standard, the amount of acidity in cream and ferment being determined by the acidimeter. In the farm dairy a little experience may be relied upon to teach the proper amount of ferment to add to the amount of cream to be churned. In the summer pasteurizing may be omitted, and a smaller percentage of ferment used. On account of the better quality of summer milk, pasteurizing is not so necessary as in winter. Naturally, also, on account of some fermentation commencing in summer milk while in the farmers' hands, a smaller quantity of ferment is necessary.—Ed.]

A dairy school on wheels, consisting of a special train of five cars, recently made a tour of Kansas, Nebraska and Missouri, to promote the dairy industry. It embraced a complete outfit of dairy goods, apparatus and lecturers. It was equipped by the united efforts of the St. Joseph and Grand Island R. R., the Blue Valley Creamery Co. and the Kansas State Agricultural College, and was visited by thousands of farmers.

### A Psalm of Wealth.

Tell me not in mournful measures  
"Holstein cattle are a fake,"  
For the dairymen who have them  
Are progressive and awake.

Money's wanted! Money's needed  
By each man in this land now;  
And the dairy makes it for him  
If he keeps the Holstein cow.

Not the cow of small proportions,  
That will give of milk a gill,  
But the cow that fills the bucket  
Is the cow that fills the bill.

At the Pan Am. Exhibition,  
In that general dairy test,  
The Holstein was the milker,  
And in profits proved the best.

Trust no Jersey, how'er pretty,  
Let her not your stanchions grace;  
For the cow that calls the cash in  
Doesn't show it in her face.

Now to dual-purpose Shorthorns  
Do not give a passing thought;  
For the cow that counts the profit,  
He will tell you, it's all rot.

Records of the famous Holsteins  
Show us what this breed can do;  
And the cow that makes the record  
Is the paying cow for you.

Farmers! then be up and doing,  
Buy a Holstein sire now,  
For if you will make the money,  
You must milk a Holstein cow.

Russell Co., Ont.

G. A. McCULLOUGH.

### Some Aspects of Canadian Dairying.

It is always interesting, if in some cases, embarrassing, to be suddenly confronted by an out-and-out scathing criticism of our theories or methods of doing work. Such criticism may not, it is true, exactly confer upon us the "giftie to see ourselves as others see us"—there are usually two points of vision, and a certain amount of

subject, as it appears in a recent issue of the Dublin Farmers' Gazette, will not tend tremendously toward recommending the Canadian produce to the Old Country market. Many of Mr. Shepperson's criticisms, however, are racy, and in so far as they are just, it may be hoped that from the thorns may grow figs.

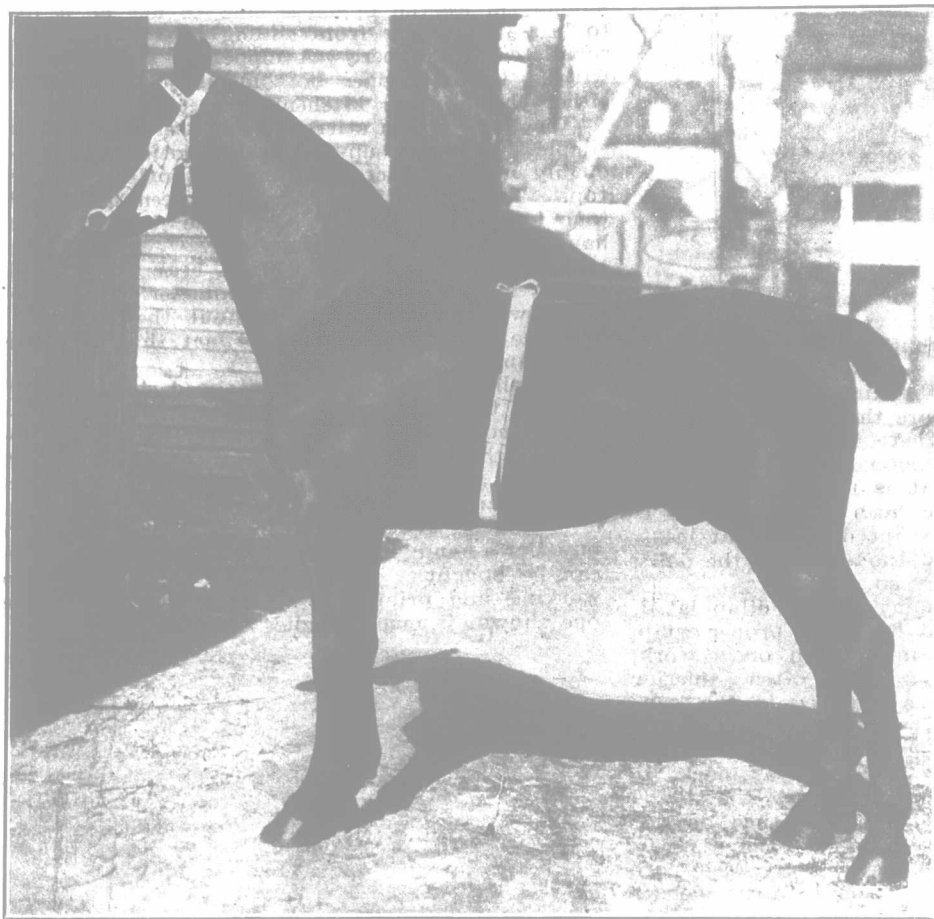
In regard to our creamery methods, Mr. Shepperson says: "The whole system of manipulation seems to be on a wrong basis," the result being that "fully one third of the entire make fails to reach the finest grade." Our best butter, he considers, is exported from Quebec. Our cream-gathering system, he contends, and possibly in many cases not without point, is faulty, the cream often being driven too great a distance to the creamery, and not being collected frequently enough during the week to give the very best product in butter. Another defect is that, in preparing butter for long-distance exportation, too few precautions are taken, "nobody appearing to have any direct interest in the butter when once it is sold." All the operations, too, he says, are conducted on too cheap a scale, the paper being poor, thin stuff, "made of the cheapest material, frequently wood chips, with a tendency to mould." As a result, when the butter arrives in the Old Country it is frequently moulded, and thus "a most unfortunate prejudice against Canadian butter has been established." The boxes, too, instead of being made of 3-inch well-seasoned wood, properly lined with paraffin wax, are "inferior."

The preservatives also come in for their share of censure. Powdered borax, or a mixture of boracic acid and salt, were the preservatives used in several samples which we saw tested. To quote further: "It is not necessary for me to deal here with the results of using materials of this kind, but of one thing I am convinced—that if salt is to be omitted from the butter, some reliable substitute must be used. It must also not be overlooked that, whereas one-half per cent. is the limit of borax allowed, it may be that 2, 3 or even 4 per cent. of common salt has been left out, to take the place of this, by substituting a harmless preservative in the proportion of, say one-fourth or one-sixth of the amount of common salt used previously. It will be admitted, upon reflection, that there is a very grave danger, indeed, in using another salt of sodium, say borate in the proportions named, and expect it to do the increased work, unless that arti-

cle has got the concentrated power expected of it; and when we consider that borate of soda, or ordinary borax, carries with it approximately not less than fifty per cent. of moisture, half per cent. of this does not equal the 0.5 borons allowed."

Our cheese comes in for its share of ridicule, although he acknowledged that our cheese exportations astounded him: "To see the drayloads of boxes of cheese being taken to the warehouses of the large merchants," he says, "you would think that there was nothing but cheese in the country." When he examined it he was "aghast at the striking and varying colors exhibited." The first sample was of an "apricot tint, which, I presume, was meant to resemble our good old Cheddar; but it was a poor attempt." On asking to see a highly-colored cheese, he was shown some that reminded him of "a brightly-dyed fabric." He should have thought that there would have been a restriction placed upon the sale of such cheeses, "because it is quite obvious that these tints are not produced by a pure annatto coloring, but by pigments or aniline dyes." In New York State, as well as in Canada, he had cheeses cut open for inspection, and found there, too, the same "varying, and fading, and patchy appearance."

Mr. Shepperson's criticism, on the whole, seems scathing. We are not prepared to admit that such butter and cheese as he describes is typical



Wood Baronet—255—(9066).

Hackney stallion. Winner at Canadian Horse Show, Toronto, 1905. Property of Truman's Pioneer Stud Farm, Bushnell, Ill.

prejudice on one side, or both. At the same time, criticism is often wholesome, and whether it arouse in us amusement, embarrassment, or pugnacity, according to circumstances, there will always be the shadow chance of reaping profit from it; and profit, even from adverse criticism, is not to be despised. The case in question relates to our dairy industry, which has certainly met with its desserts, or more, at the hands of one, Mr. W. S. Shepperson, F. C. S., chairman of the London, Eng., establishment of Keeps, Ltd., who, it seems, paid a visit to Canada with the express purpose of looking into our butter and cheese methods, and whose exposition of the

GARDEN AND ORCHARD.

The Codling Worm of the Apple.

By Prof. Lochhead.

The Codling worm is the cause of greater loss to the apple industry than any other insect. The extent of the loss to Ontario alone runs up every year into the hundreds of thousands of dollars, and into the millions in the United States—all because the remedies which have been discovered by the entomologists have not been applied by the apple-growers.

While there is but one brood of the Codling moth east and north of Toronto, there are two broods west and south of the same place. The different stages of this insect pest should be familiar to the apple-grower, for only with this

treated. For the scab two additional sprayings are necessary—one before blossoming and one in July.

The Bordeaux-Paris green mixture is prepared according to the following formula:

- Copper sulphate or bluestone ..... 4 pounds.
- Fresh lime ..... 4 pounds.
- Water ..... 40 gallons.
- Paris green ..... 4 to 6 ounces.

The bluestone is dissolved in 15 to 20 gallons of water in a barrel, and in another barrel the lime is slacked carefully, and 10 to 15 gallons of water are added to make a milk of lime. Then the contents of the two barrels are poured into the spray barrel through a strainer. Finally the Paris green is made into a paste with water and put into the barrel along with the Bordeaux. It is very necessary that the agitator should work while the pumping is going on, so as to keep the Paris green well distributed throughout the mixture. Use a good spray pump, and spray the trees carefully at the times mentioned above.

The practice of banding trees is commendable, but everything taken into account, is more expensive than spraying, and is, moreover, actually harmful, unless the bands are examined and the larvae destroyed every ten days or two weeks during the latter half of June and all of July.

Every fruit-grower should acknowledge the value of such birds as the chickadee, downy woodpecker, nuthatch, bluebird, swallows, wren, and song sparrows, in checking the increase of the Codling moth and other injurious insects, for without them fruit could scarcely be grown. Encourage the birds, therefore, to come about the orchard by keeping the gun at a distance, and by punishing the robber of birds' nests. Ontario Agricultural College.

N. B. Fruit-growers' Association.

Mr. Thos. A. Peters, Deputy-Commissioner of Agriculture in the Province of New Brunswick, has been chosen to fill the position of Secretary of the New Brunswick Fruit-growers' Association, organized in December at the Maritime Winter Fair. Mr. Peters, in his official capacity, takes a special interest in horticulture, and for the past two years in particular has had to do principally with the work of planting out the illustration orchards, which the Local Department of Agriculture is setting out on private farms in various localities, with a view to demonstrating the fruit-growing capabilities of the Province, and introducing up-to-date methods of orchard culture.

As an ardent horticulturist and a publicist, in touch with the prominent fruit-growers of the Province, Mr. Peters should make an efficient secretary of the new association, the objects of which are to organize the fruit interests for common advantage, to encourage the planting of orchards and small fruits, to carry on educational work; and, later, perhaps, to assist or undertake co-operation in purchase of nursery stock, and packing and marketing of products.

There is a splendid field for the new association; New Brunswick's fruit-growing possibilities have not begun to be realized. In strawberries, which do exceedingly well, the lateness of the season enables Maritime producers to place their crop in Montreal and American cities after the berries from other parts of the continent are out of the market; this insures an average price that Ontario growers would envy. Apples, however, will doubtless be the great export crop, and for them many parts of the Province are highly suited. Chief McNeill, of the Dominion Fruit Division, and G. H. Vroom, Dominion Fruit Inspector for Nova Scotia, agree that for commercial production of certain varieties of dessert apples the St. John River Valley has almost as bright a future as the famous Annapolis Valley of Nova Scotia. Even now instances of financial success in New Brunswick orcharding are not wanting, and with an energetic, enthusiastic organization to exploit the industry, fruit-growing bids fair within a couple of decades to rival the dairy industry in importance, and to supplement it materially as a source of national wealth.

Fair Play for Canadian Nurserymen.

To the Editor "Farmer's Advocate":

Sir,—In your issue of May 4th, in the Garden and Orchard department, you note that Mr. Thos. Cunningham, Inspector of fruit pests in British Columbia, estimates that half a million of fruit trees are being imported into British Columbia this season, chiefly from Oregon, and you ask the very pertinent question, "Why this nursery stock is not grown in Canada?" Allow me to answer.

It is grown in Canada to a very considerable extent. A considerable portion of the half million trees were supplied by Ontario nurserymen, but under such difficulties that it was only done to save the stock from being thrown away. I estimate that the nurserymen of Ontario have had a surplus of nearly a quarter of a million of trees this spring, and under any sort of fair play would have been extremely glad to have availed themselves of the extraordinary demand in B. C. for nursery trees; but the legislators of B. C. are determined, apparently, to stop all purchases from Ontario. The B. C. Government have adopted, wisely enough, most stringent regulations as to the importation of nursery stock, to prevent the importation of diseases of

of those products in Canada. At the same time, his summary of the situation is by no means all a dream. Undoubtedly, from many parts of Canada, dairy products far from choice are being circulated. This is a sad mistake, and, as may be judged from the above letter, which will doubtless be copied largely by Old Country publications, very detrimental to the Canadian trade. Mr. Shepperson, as representative of Keeps, Ltd., is probably, to an appreciable extent, an authority. He has given his opinion, but it may be hoped that those "whom the cap will fit," may by no means be willing to wear, but rather to get rid of it. Canada's dairy industry must forge to the front, and nothing but the most careful handling and choicest product will place or keep it there.

Keeping Flies from the Cream.

In a series of answers to the query "How may flies be kept out of creameries?" propounded by the New York Produce Review, the following points were emphasized. Many of them may, with profit, be applied to the farm milk-house, as well as to the regular creamery.

1. Keep everything scrupulously clean, not only in the creamery, but all about it. The drainage all around should be good, and if milk is spilled on the ground outside it should be immediately cleaned with hot water, slacked lime then being sprinkled over the spot.
2. Provide good screen doors and windows. One correspondent recommends double screen doors, with Tanglefoot fly-paper between.
3. Darken the creamery just long enough to drive the flies out by the use of a steam hose or other methods; then raise the shades and shut the screen doors. The room must not be kept dark, or it will become musty.
4. Use Tanglefoot in the creamery; never fly poison. The latter may, however, be placed around out of doors.
5. Keep all cream vats, etc., closely covered.
6. If shade trees be all around the building, there will be much less trouble from flies than if it be hot and unprotected.

Dairying on Small Farms.

A. W. Trow, of Minnesota, and, by the way, one of the most successful dairymen in that State, in addressing the Iowa Dairymen's Association this spring, related the following experience of a successful dairyman in Wisconsin:

"It is possible for a man to get a good income from 60 acres of land by the use of the silo and feeding good cows.

"I want to tell you of a man I met the other day. I had heard of this man, Griswold, of West Salem, Wis., who is keeping a herd of cows on 50 acres. I went out there and found him on 50 acres of land, keeping 28 cows, about 20 head of young stock, and the necessary horses for working the land. He is a careful bookkeeper, and I went through his books. I found that on that farm of 50 acres and 10 acres of pasture that he hired, only \$430 worth of feed was bought. I found that he had sold \$2,300 worth of cream during 1903. Some may, perhaps, think that this was ice cream, but it was not. The cream sold for 22¢. for butter-fat; \$2,300 from 28 cows—about \$82 a cow. And he has sold \$360 worth of hogs, \$100 worth of potatoes, and \$50 worth of hay. What was he doing, selling hay on that little farm? Well, he had two silos. The increase in stock amounted to \$200, making a total revenue of about \$3,000 from that 50 acres. This is another source of encouragement to young farmers who cannot buy a big farm. Mr. Griswold has a silo 18 or 20 feet in diameter and 32 feet deep, for winter feeding, and another for summer feeding. He fed these cows all the ensilage they would eat both summer and winter, and that was one of the secrets of getting so much from so small a farm. Of course, he took good care of his cows; used the Babcock test and scales to weed out the poor ones. I asked him the secret of his success, and he said: 'First, close attention to my cows, weeding out the poor ones, keeping the heifers from the good ones, and then I could not get along without the use of the silo.'"

The above facts show what can be done by intensive farming. We have often stated that the majority of farmers are attempting to care for too much land. They are not concentrating their efforts on any one line of business, and the result is that poor returns often follow their efforts. If Mr. Griswold can secure a revenue of \$3,000 per year on 50 acres, is it not a fact that he is getting a great deal more out of his acres than the average man who farms 160 acres or more obtains? The silos are, without question, at least partly responsible for his large income per acre. Don't delay building a silo any longer—delay for the man who raises cattle or sells cream means loss of profits.

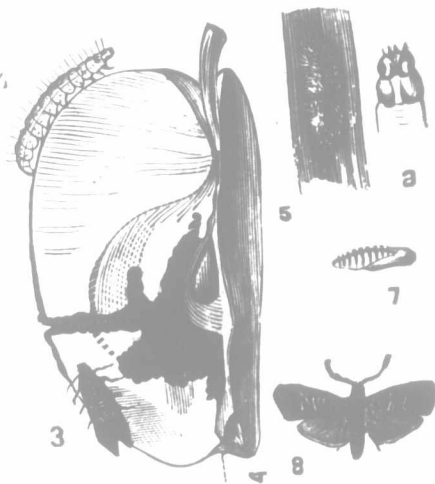
The "Farmer's Advocate" has ever been a highly valued periodical in our home, and I believe it to be the very best agricultural paper I have yet seen.  
JNO. M. McCALLUM.  
Oxford Co.



Thos. A. Peters, Fredericton, N. B.

Deputy Commissioner for Agriculture in New Brunswick, and Secretary N. B. Fruit-growers' Association.

knowledge can he apply his remedies intelligently. The life-story may be stated concisely, as follows: The insect winters over as a caterpillar in a cocoon in some protected place, and in early June, when the blossoms are falling from the apple, the adult winged moths appear. The females deposit their eggs on the leaves and newly-formed fruit. In about ten days the caterpillars escape from the eggs, and a few days later enter the apples, usually at the calyx end. The worm remains inside the apple about twenty days, after which it comes out to spin a cocoon, within which it lives until spring if there is but one brood, but only about two weeks if there are two broods in a season. The second brood



of moths appear about the end of July or the beginning of August; then eggs are again deposited, and the worms which hatch from these eggs enter the developed apples about the middle of August, leaving them again in September to make cocoons, within which to spend the winter.

With our knowledge of these facts, we are able to state quite definitely the best times to apply remedies. The plan is to poison the worms with Paris green, or some other arsenic mixture before they enter the fruit. The trees should be sprayed, (1) a few days after the blossoms fall; and (2) about the middle of August for the second brood of larvae. An additional spraying ten days or two weeks after the first will, in most cases, be productive of much good. It is advisable, of course, to use the arsenic mixture along with Bordeaux, to control the apple scab-fungus at the same time that the Codling moth is being

any kind—San Jose scale, peach borers, or any other form of disease that can be carried on nursery stock. No one objects to this. No one, I imagine, has any desire to foist on the fruit-growers of B. C. any diseased stock. Let the regulations be as stringent as possible, such regulations would not debar Ontario stock any more than Oregon stock. Ontario nurseries are as free from disease as are those of Oregon, but the difficulty does not lie in this fact at all. We have the trees and have them free of disease, but we are compelled to ship these trees, most of which are wanted in the Okanagan and other valleys in the Eastern and South-eastern B. C., all the way to the Coast of Vancouver, and then after inspection ship them back again to Eastern and South-eastern B. C., a distance of from 400 to 800 miles at least. Our spring does not open up until about April 1st to April 10th. By the time our trees get to the Pacific Coast and are inspected tree by tree, reboxed and shipped back to the Okanagan country, it is May 15th to June 1st, whereas Oregon nurserymen can ship March 1st, have them inspected and delivered by April 15th. Hence, Oregon nurseries get the bulk of the trade. We have urged, and the fruit-growers of the Okanagan Valley have urged, upon the B. C. Government that in all fairness the inspecting station, if only one is to be provided, should be on the eastern and not on the western border. If any favor is to be given, let it be given to Canadian nurserymen. Let the Oregon nurserymen send their stock to the eastern border of B. C. for inspection, and thus give us some advantage to compensate for our later opening season. Let the Oregon nurserymen take the risk of shipping across the mountains in early April, instead of compelling us to run this risk. But a deaf ear has steadily been turned to us. If we ship we must ship to the coast, pay heavy fees for inspections, and then reship back five hundred miles or more in most cases. This is the reason most of this valuable trade goes to Oregon, and Canadian nurserymen who grew trees for this trade have them on their hands. E. D. SMITH.

#### Care of a Strawberry Plantation.

By H. S. Peart.

May is the best month for planting strawberries. As soon as possible after setting, the ground should be cultivated to a depth of about two inches, in order to loosen up the soil. Cultivation should be continued at intervals of about ten days during the summer, so that a fine dry earth mulch may be maintained and the weeds held in check. Runners root much more quickly in loose soil than in that which is uncultivated. Any blossoms which may appear should be pinched out before the fruit sets. Fruiting the first season weakens the plant and reduces the crop for the succeeding year. The first runners should be permitted to grow, as the earlier the runners root, the stronger the plants will be. An average of eight or ten plants from each one set should give a row sufficiently thick for a good yield of fruit. Late-formed runners should be cut off, because they form plants too weak to be of any value, and they also draw nourishment from the plants already formed.

Mulching is of first importance in strawberry culture. As soon as the ground becomes frozen fairly hard in the fall, the plants should be covered with a mulch of straw manure or marsh hay. This will protect the ground from the alternate freezing and thawing which heaves the plants out of the soil, breaking their roots and causing reduced yields. Then about the middle of April, preferably on a cloudy day, the mulch should be raked off the rows into the paths between. As the fruiting season approaches, more mulch should be put between the rows, to assist in holding the moisture, and to keep the sand off the berries and the pickers.

It is seldom advisable to harvest more than one crop from a plantation, but if one desires to take a crop the second year, the old rows should be narrowed down to about six inches, the weeds and many of the old plants taken out, and the old plants left to start a new stand. Keep the ground well cultivated to encourage the formation of new runners—the plants which will bear the next season's crop. Then mulch again in the fall the same as the previous year.

#### The Manitoba Floral Emblem.

The Natural History Society of Manitoba have, after some discussion, arrived at the unanimous conclusion that the crocus (anemone replus), or crocus anemone, should be Manitoba's floral emblem.

#### Do You Want to Sell Your Home?

THE "WANT AND FOR SALE" COLUMN OF THE "FARMER'S ADVOCATE AND HOME MAGAZINE" IS THE PLACE FOR YOUR ADVERTISEMENT. SEE RATES UNDER THAT HEADING IN THIS PAPER. ADDRESS: FARMER'S ADVOCATE AND HOME MAGAZINE, LONDON, ONT.

## POULTRY.

### Poultry Notes.

Overfat fowls make poor breeders.  
The cement floor is easiest to clean.  
All whole grain should be fed in litter to induce exercise.

The sitting hens should occupy quarters entirely separated from the rest of the flock. They need perfect quiet to give best results.

Young chicks should be fed four or five times a day on the start, but are better off if not fed anything until thirty-six or forty-eight hours after they are hatched except coarse sand. Some recommend even waiting a longer time before giving other food to newly-hatched chicks. The yolk of the egg is absorbed by the chick just before hatching, and it should be thoroughly digested before other food is given. A good rule is to let the little fellows get good and hungry before any food is given.

Milk, either sweet or sour, is good for both old and young chicks, but for real young chicks it is best to feed it in the form of cottage cheese or while it is yet sweet. Cottage cheese is valued highly as a feed for young turkeys.

Place the brood coops on dry, well-drained ground, and be sure they are storm proof and rat tight, and at the same time airy and well ventilated. Doors made of inch mesh wire netting are just the things for thorough ventilation and protection from rats and other enemies at night. A little extra care in protecting the chicks pays well.

Kerosene oil applied to roosts, roost supports and nest boxes every two or three weeks during the summer will effectually prevent the red mites or lice from getting started in the flock.

There are many advantages in free range for poultry which are hard to supply to a flock in confinement with the very best possible care. The farm flock has advantages in this respect which many city and village poultry-keepers cannot give their fowls without having trouble with their neighbors.

On many farms where the hens have free access to the hog pens and get too much corn and become too fat to lay one remedy is to build a larger poultry-house and keep more hens to eat the waste grain. The poultry on most farms should not be fed any grain but whole oats, especially when they can get out around the stables and hogpens, because they will then get all the other grains and food they need for variety. Whole oats is the best grain for eggs, and the least fattening of them all.

Thoroughly clean the brood coops and give them a good sprinkling of kerosene oil before putting in the new families this spring. If the coops are sprinkled with kerosene inside every week or two during the summer no red mites will bother them. Prevention in this case is better than cure.—[The Farmer.]

### A Pipeful for Poultry Breeders.

A recent number of the New York Sun states: "After five years of careful breeding for egg-production, regardless of all other accomplishments, Prof. Geo. M. Gowell, Agricultural expert at the University of Maine, has succeeded in obtaining more than 40 hens that have yielded more than 200 eggs in a year, and has produced one hen which has laid 251 eggs within 12 months, thus beating all previous reported records in egg yield. The hen is a small Plymouth Rock of pure strain, though not shaped according to the standard type. She is not only under the size demanded for perfect specimens of the breed, but her wing barring is imperfect, and her neck is too slim for her body. In spite of her defects, as viewed from the standpoint of the fancier, she is, in actual performance, the most valuable hen in the world, being capable, under average Maine conditions, of returning to her owners a net profit of 176 per cent. a year.

It is often so; not that this hen's imperfections, from the fancier's standpoint, contribute anything to her laying ability, but simply that by the law of compensation, exceptional excellence in one respect is liable to be accompanied by mediocrity in some other direction. Hence the folly of laying undue stress upon the fancy points. The above case illustrates an innumerable list of actual instances where rigid selection according to fancy points bars out the best producer in the flock. Occasional individuals combine a high degree of egg-laying quality with the strictest conformity to fancier's requirements, but a higher average of egg production will invariably be obtained by seeking utility only. Of course, so long as fowls are bred pure—and this will always be necessary—some attention must be paid to the breed points, which in poultry are the only evidence of purity of breeding; but in selecting, according to this ideal, there is always danger of sacrificing substance for shadow. We look forward to the day when the egg record system will become general among poultry breeders, and when the chief question asked by a prospective purchaser of a cock will be, not "How is he colored?" but, "What is the egg record of the strain?"

### Sitting Hens.

When a hen gets to be real broody, she will usually readily accept any nest you may give her with eggs in it. For a while, of course, there will be an inclination in the hen, after leaving the nest for feeding, to return to her old nest, and even where we set a number of hens in a house and yard by themselves, it may be a few days before the hen gets used to her particular nest and thenceforth claims it as her own. We have often had two hens get upon one nest, and have one nest unoccupied. Sometimes a couple of hens will get to fighting over one nest, with disastrous results to some of the eggs in the nest. All this trouble, however, can easily be avoided. The best plan, probably, where the eggs have to be hatched in the natural way, is to have a hatching room that is the very counterpart of the laying room, with the very same nest arrangement, and nests exactly like the laying nests. It will be all the better if the nests are movable nest boxes, which can be taken out of the laying room with the broody hen on it, filled with eggs and placed in the corresponding position in the hatching room. There will be no further trouble. The hen knows her nest, and its position, and when she leaves it to feed, drink, or dust herself, she will promptly return to it when ready, and this without being interfered with by any of the other sitting hens, all of which know their own nests. It hardly needs to be said that there should be an enclosed yard connected with the hatching room, so that the hens may go out into the air and sun, and dust themselves, and that for greater safety each hen should be treated to a sprinkling of buhach (California insect powder) several times during their hatching period. A few lice may not do much damage to old fowls, but they are liable to turn apparent success in chicken-raising into dismal failure. Dusting hens thoroughly with insect powder or tobacco-dust seldom fails to give relief.—[Practical Farmer.]

### The First Breed Produced by Farmers.

All the new varieties which have been added to the standard in recent years have been produced by fanciers. The last addition, the Rhode Island Reds, which have caused so much commotion in the American Poultry Association, are the result of an effort on the part of New England farmers to produce a fowl which could be quickly put into market condition at any stage of its growth, and yet produce good laying hens. No thought whatever was given, at first, to qualities which attract the fancier. That the fowl produced should possess such qualities, was the result of mere chance.

Some years ago many whaling vessels were fitted in New England ports for expeditions to the Southern Indian and Pacific Oceans. From certain islands in these waters, the location of which no one seems to know, the natives frequently swam out to the whaling vessels, carrying baskets on their heads, in which were male birds which they traded to the sailors for knives, etc. These the sailors ate. But frequently they were not all consumed when the vessels reached port; those which remained were picked up by those farmers in the neighboring districts who believed in roosters of different breed each year.

These males were of striking appearance, as they were of a bright red color from comb to tail. They were somewhat upright in carriage, after the fashion of the game cock, but had shorter, sturdier legs, set wide apart. The breast was broad and the keel-bone long. When one of these red cocks was put into a flock, he at once proceeded to kill all other males, or whip them into absolute submission, and they were so prepotent in reproducing their color that the young stock was all red. As these fowls had yellow legs, yellow skin and good flavor, and were also good layers, they were a particularly good farmer's chicken, as their unusual vigor made them much better foragers than any other variety of equal size. A number of progressive farmers undertook to increase their poultry profits by selecting the best of these crosses and establishing a practical breed, without reference to fancy points. They were thoroughly successful, for the long keel tends to make the hen a good layer upon the range, while the quick response to feed when confined makes the breed a profitable market fowl. But their most distinguishing feature is the life and vigor which they inherit from the red game. One of their admirers, with the exaggeration of enthusiasm, said that you could put one through a threshing machine, and he would come out ready to fight. It was their red plumage which first attracted the fanciers, but the standard has been arranged by those who originated the breed, and the requirements look carefully to the preservation of the vitality and shape for which it is noted. It is determined to be a favorite with farmers when it is better known. W. I. T.

### The Gold Standard.

Please find enclosed \$1.50, my subscription to the "Farmer's Advocate and Home Magazine." Am well pleased with the paper. It is worth its weight in gold. Sorry more of our young men do not read it.  
P. E. I. JAMES A. THOMPSON.

APIARY.

Brant Beekeepers Meet.

The Brant Co. Beekeepers' Association met at the Court-house, Brantford, Saturday, May 13th. President C. Edmundson in the chair; W. J. Craig, Secretary. Reports on wintering showed that bees had wintered much better than a year ago, but that spring building up had been almost at a standstill up to May 1st, on account of the continued cool weather. Several claimed bees wintered out of doors were in better condition than those wintered in cellar. Heavy winter losses are reported from Eastern Quebec, Nova Scotia and New Brunswick.

Discussion of wintering naturally led up to spring management. Early in March, said some, when a day comes warm enough for bees to fly, open up the tops of hives packed out of doors, and lay flat on top of the frames over the clustered bees a comb of sealed honey, saved from last year. This is the very best kind of early stimulative feeding, and is recommended by Messrs. Alpaugh, McEvoy, Shaver, and others. "Systematic stimulative feeding," said Mr. Holtermann, "is followed extensively in Germany and England. When done right it is a great help, but is a dangerous tool in unskilled hands." Messrs. Alpaugh, Gimmell, Armstrong, Craig, Adams, McEvoy, and others, contributed to the discussion on this subject. One of the great drawbacks to bees this spring has been the lack of pollen-gathering days. The Germans supply this by mixing rye meal with the syrup they feed. Flour, bran, oatmeal, peameal, almost any kind of chopped grain, should be put out in spring, and it is wonderful how the bees will revel in it; yet they seem to use all they carry to the hives. For stimulative feeding sugar-syrup is used. It is made thin and fed in the hives in small quantities in the evening of days that have been too cool for bees to gather honey. The precautions to be noted particularly are to feed in the evening, syrup and not honey, to feed regularly until the honey flow, and to not feed very weak stocks, but build them up with sealed brood and young bees from stronger ones which have been stimulated to breed.

MORLEY PETTIT.

NEWS OF THE DAY.

Canadian.

The excavation of the tunnel between Detroit, Mich., and Windsor, Ont., will be begun in the near future.

Canada may be honored before long by a visit from the King of Belgium.

Materials for the new Marconi Station have been sent to Sable Island.

The C.P.R. will double-track the line between Fort William and Winnipeg, the work to begin at once.

The C.P.R. has let the contract for the construction of the portion of the Toronto-Sudbury line which lies between Toronto and the Magnetawan River. Roads will also be built through Ontario, from Walkerton to Flesherton, and from Victoria Harbor to Sharbot Lake.

British and Foreign.

Ivan Kalleff, who assassinated Grand Duke Sergius on February 17th, has been executed.

All the boats participating in the autoboat race

ILLUSTRATIONS.

Roan Conqueror (84519)... 775
Wood Baronet 355- (9066)... 780
Thos. A. Peters, Fredericton, N. B... 781
Vice-Admiral Nebogatoff ... 784
Tube for Discharging Torpedoes ... 784
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from Toulon to Algiers, were either sunk or disabled during a heavy storm. All the crews were picked up by destroyers which followed, except that of the Quand-Meme, consisting of seven men, of whom nothing is known. Two cruisers are searching for the vessel.

Regarding the present movements of the opposing fleets in the Far East almost nothing is known. Togo is observing the usual silence of his race, and Rojestvensky, having, apparently, taken a lesson from his book, is giving no information, even to the home authorities, regarding his plans. He left Honkoko Bay on May 14th, sailing northward, and since then nothing has been heard of him. It is surmised, however, that his junction with Nebogatoff has already taken place, and naval critics are of the opinion that when the combined fleets go further north, nearer to the Japanese docks and bases of supply, they will be subjected to a continual series of attacks from Japanese torpedo and gun-boats, the object of which will merely be to cripple the Russian strength somewhat, and leave it less able to cope with the final blow which may be struck nearer to Vladivostok. . . . In Manchuria desultory fighting has again been resumed, chiefly in the vicinity of Dangu Pass, which has been taken and is held by the Russians. During the past week 80,000 Japanese reinforcements have been rushed to the front. It is reported, also, that many sections of Northern Manchuria are swarmed with Chinese bandits, acting under the leadership of Japanese officers. The situation, in fact, every day seems to grow more precarious for the Russians.

THE FARM BULLETIN

Prof. F. C. Harrison, Bacteriologist at the Ontario Agricultural College, has accepted a similar position on the staff of the new agricultural college being established by Sir Wm. Macdonald and Prof. J. W. Robertson, at St. Annes, near Montreal. He will make the change on Sept. 30th next.

Studying the Clyde.

It is almost invariably the case that when one attends a show of horses in Western Canada or in the Northwestern States, where Clydesdales are on exhibition, he will hear a discussion as to whether a certain horse is a good specimen, because he has so little hair on his legs. The advocates of some other breeds across the line appear to have been persistently drumming into everyone who would listen that the most distinguishing feature about Clydesdales was excessive growth of coarse hair on the legs, and when many of our cousins see the modern Clyde with a fine, silky feather, they are at a loss how to reconcile the ideas imparted by their informants with the spectacle they have before them. The imputation cast upon the Clydesdale was quite applicable fifteen or twenty years ago, but to endeavor to make it stick now is to libel the breed. However, the fact that the Northwest is being settled up by a large proportion of men who carry in their minds a certain prejudice against the Clydesdales suggests the great work before the breeders of these horses, if they would make these people their customers and breeders of Clydes. The agricultural press in Canada has constantly called attention to the splendid improvement in Clydesdale quality, and exhibitions have elaborately illustrated this fact, but many of the most promising of our new settlers have never been apprized of the great change, and are naturally agreeably surprised to find the draft horses in this country possessing such clean, hard, flinty bone, which gives evidence of standing the maximum amount of wear.

The Arrival of the Foal.

Foals are arriving daily now, and next to seeding, probably, no other subject claims so much attention in the country as does that of raising colts. Different men have different methods of handling colts. Some go to considerable trouble to insure comfort and good health, while others simply let the mare and colt have the run of a field or paddock. Frequently we have seen men become disgusted with horse-breeding, because, after spending considerable time and going to considerable trouble with their in-foal mares, they have been rewarded with a weak or dead foal. Invariably, such men were over-indulgent to their mares, or substituted a dark, damp stall for the bright, fresh atmosphere of field or yard. Mares bearing foals should never be too highly pampered. They require plenty of exercise in the fresh air, and should be kept just in fair flesh. After foaling, when the weather is bright, let the foal have as much sunshine as possible. There is something in the warm, cheerful rays of the spring sun that seems to instill life and vigor into all young animals, and especially is this true of foals and young pigs. The disinfecting power of sunlight, its efficacy in preventing such diseases as joint-ill, is scarcely appreciated as it should be. Get the young foals into the light as early as possible.

Ireland as a Hunter-raising Country.

In the course of an interesting article in the Live-stock Journal, entitled "Where the Hunter Grows," a writer has a well-deserved tribute to pay to Ireland as a hunter-raising country. Having expressed the opinion that the Grand National Steeplechase at Liverpool is the grandest test provided for the hunter-like race-horse—four miles and a half over a very strong course, and at a tremendous pace from start to finish, being a great ordeal under a fairly good hunting weight—he goes on to say: "It has been mostly the Thoroughbred that has won these Grand Nationals, the few exceptions being those bred as nearly as possible in that direction. But where have the majority come from? The answer will be Ireland, the land of the hunter, and he grows on his native soil from all sorts of sources, in many cases by those sires who have not made hits at all in this country. Ascetic, Man of War, Skylark and Decider were but moderate horses on this side of St. George's Channel, but they got Grand National winners and the best hunters of their times. It is where they grow—those old pastures of Meath and Kildare, where the climate is soft and regular, and the animals rough it, turned out all seasons by night and day. The expense of the land is not much, so whether it is three or four years for the colt to take his chance untouched, there is little to concern the easy-going Irish farmer, and he lets the young jumper grow."

[NOTE.—At the Dublin Horse Show one sees more Thoroughbred stallions up in years and carrying their age well, than at any other show in the world—horses that bear marks of wear and tear of the race-track and the stud—and there one is able to judge according to the old and always true law, "By their fruits ye shall know them," for the hunters and leapers are to be found there.—Ed.]

If You Want Anything

AND DON'T KNOW WHERE TO GET IT, AN ADVERTISEMENT IN THE "WANT AND FOR SALE" COLUMN OF THE "FARMER'S ADVOCATE AND HOME MAGAZINE" WILL GET IT FOR YOU. THE FARMER'S ADVOCATE AND HOME MAGAZINE, LONDON, ONT.

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### The Torpedo and Torpedo Boats.

The torpedo is an essentially modern artifice of war. It was first used at Wei-hai-wei in 1895, suggestively enough by the Japanese, who then sank three Chinese battleships by its use. During the war between the United States and Spain, in 1898, the torpedo was not used, but since then the various nations, in piling up the deadly machinery which seems necessary to their individuality, especially in the old world, have become alive to its value, and now a flotilla of torpedo boats and "destroyers" is considered indispensable to any up-to-date navy.

The kind of torpedo used by Japan in the present war is the Whitehead navigable species. It is a long cigar-shaped affair, from 14 to 18 feet in length, and in its passage through the water is said to resemble, somewhat, a sturgeon. The explosive charge, weighing, usually, between 150 and 200 lbs., is contained in a section at the nose of the torpedo, and is exploded by a pin which projects from the end and is driven in as soon as it hits any solid object. The torpedo is driven from the torpedo-boat by compressed air, but when started on its way is self-propelling, and, hence, notwithstanding the resistance of the water, has a considerable range, usually 1,000 yards.

Nearly all large war vessels have a few torpedo tubes, but the boats constructed especially for torpedo service are immeasurably superior for warfare of this nature. In their very diminutiveness lies an element of safety, while for night manoeuvres, or in any action in which lightness and speed are required, they have proved the most effectual medium yet invented, being able to run in, cripple a battleship, and retire in comparative safety, where larger vessels would have found it impossible to act. The so-called "destroyers" have a speed of from 25 to 30 knots an hour.

The newest kind of torpedo-boat is the submarine. This kind has not so great a speed, being capable of only about 11 knots on the surface, and 6 or 8 when submerged; but in the character of the boats lies their efficiency. The submarine runs on the surface until within a mile or two of the enemy, being even then not at all conspicuous, little being visible but the whale-backed top. During this time it is driven by a gasoline engine. Once within proper distance of the enemy, however, it sinks until partially or wholly submerged, a propelling power of storage batteries and an electric motor now being called into requisition. Thus, like the hidden serpent, it goes on its way until within sufficient range for the discharge of the torpedoes, one of which is sometimes sufficient to sink a vessel. Steering under water is also made easy, by means of a peculiar optical instrument confined in the top of a tube, which projects out of the water, and which, by means of a mirror arrangement, transmits a picture of the outlook above to the observer who sits below.

Upon the whole the modern torpedo, with its boat, is one of the most deadly and ingenious contrivances of war ever invented, and its agency in the coming struggle between Togo and Rojestvensky will be watched with keen interest.

### May Crop Report.

Below is the monthly report of the Ontario Department of Agriculture, based on the reports of the departmental correspondents, and representing the conditions in Ontario on May 10th:

**Fall Wheat.**—Taking the Province over, this crop suffered less than usual from winter-killing. The cold winds prevailing in April were very trying to fields in exposed places; but the crop has picked up wonderfully with the more favorable weather in May, and has a most promising appearance in most quarters, more especially in the case of early-sown fields.

**Winter Rye.**—Reported to have come through well.

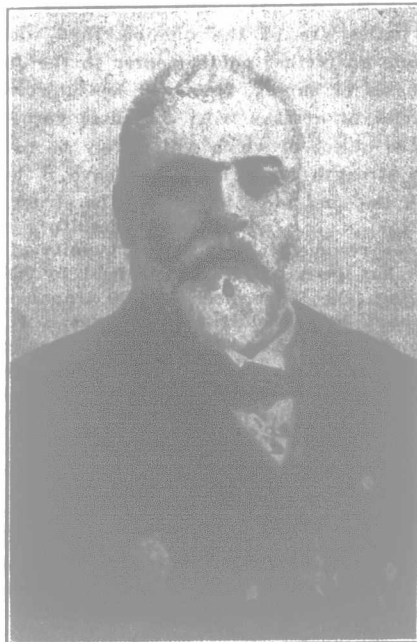
**Clover.**—The present indications are that there will be a full yield of clover this season, taking the Province as a whole. In the central and western counties clover fields are in a really first-class condition, having suffered little from winter-killing of any form. In the more eastern counties prospects are not so bright, but the fields are rapidly recovering from the heavy check given the crop by the raw winds of April. The general report is that new fields are particularly strong, the catch last year having been most successful.

**Vegetation.**—Growth in field and forest was hardly so advanced as usual on the 10th of May, the date when most of our correspondents filled in their returns, although even then a large number of cattle were reported to be on the grass. April proved to be a backward month for vegetation, but May weather was much more favorable.

**Fruit Trees.**—A considerable loss is reported among plum trees, and some peach and other fruit trees are also said to have been winter-killed, although not to the same extent as last year. In fact, much of the immediate loss of orchard trees is charged against the severe weather of the winter of 1903-4. Blossoming was starting as correspondents wrote, and cherries, plums and peaches were coming out profusely. Apples are not likely to be so heavy a crop. Field mice continue their attacks upon young fruit trees, and there are many complaints of serious injury. There are now but few counties exempt from the injury of this active pest.

**Live Stock.**—Live stock of all classes came through the winter without any serious mishap, any disease complained of being more or less local in character. Horses are described as being rather thin, but in good working condition otherwise, as the weather was not too warm during spring operations. There are the

usual scattering reports of distemper, with but few fatalities. Cattle are also said to be on the lean side, but hearty. Like other live stock, they had to be carefully fed, owing to the lack of corn and high prices of millfeed, but they are now rapidly picking up in form on the grass. Sheep are generally reported as in good condition. Ewes have been prolific this spring, and lambs are said to be remarkably strong and active. Swine are more generally raised, but do not appear to be so plentiful as usual this spring. Occasional reports have been received of crippling from rheumatism or other causes, but these attacks are generally the result of local housing and feeding. New litters of pigs do not appear to have done so well in the eastern part of the Province as in the counties farther west. Gen-

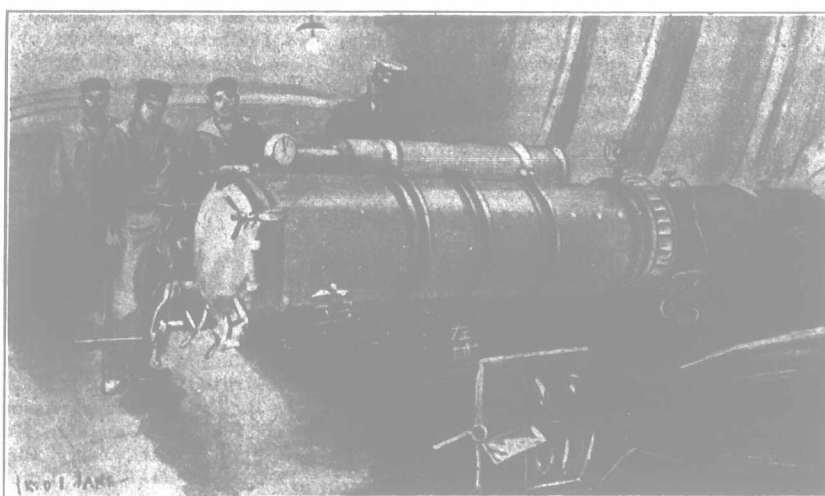


Vice-Admiral Nebogatoff.  
Commander of Second Baltic Squadron.

erally speaking, there was a sufficiency of fodder, although many farmers were pinched for corn and straw.

**Farm Supplies.**—In most parts of the Province there is more than a sufficiency of hay, although the scarcity of straw and corn drew largely on this fodder. Oats have been largely fed, and high prices have been paid for what was marketed, and while there is a surplus on hand, it is not a large one. Wheat is comparatively scarce from the same causes. Fat cattle have nearly all been bought up, and store cattle are not so plentiful as usual. In fact, more farmers are grazing their own stock than in former years, good prices for beef and the scarcity of fit agricultural laborers leading to this end.

**Spring Seeding.**—The sowing of spring grain averaged a week or two earlier than usual, in many instances being concluded in April. The seed-bed was in ideal condition, and the seeding was generally successful. In the Georgian Bay section, the northern districts, and some of the St. Lawrence and Ottawa counties, frequent rains delayed operations on low-lying fields; but on high lands work was well ahead. Peas were purposely sown late by many farmers, in order to escape the weevil.



Tube for Discharging Torpedoes.

On Japanese Cruiser.

### As a Magazine.

I must say that we appreciate your paper very much, both as a farm paper and a magazine as well.  
Kent Co., Ont.

W. R. REEK.

IF YOU HAVE A FARM FOR SALE OR WANT A SITUATION, PUT AN ADVERTISEMENT UNDER THE HEADING OF "WANT AND FOR SALE" IN THE "FARMER'S ADVOCATE."

### Washington State Agricultural College.

W. A. Linklater, a graduate of the Animal Husbandry Department of the Iowa State College in 1903, has just been appointed Head of the Animal Husbandry Department in the Washington State Agricultural College at Pullman, Washington. As a student, he was one of the strongest of his class, being a member of the 1902 student judging team which won the "Spoor Trophy." Since graduating, he has very ably filled the position of Chief Examiner in the Sioux City Correspondence Agricultural College. Mr. Linklater's appointment makes a total of some fifteen important positions filled by graduates from the Animal Husbandry Department of the Iowa State College during the past two years.

### Inoculation for the Growth of Legumes.

Prof. Frank T. Shutt, Chemist, Dominion Experimental Farms, in the course of an article on the above subject, refers to a test of cultures sent out from Washington, D.C., for promoting the growth of red clover and alfalfa. While the results were not satisfactory, the attention of farmers is drawn to the fact that effective inoculation for clover and alfalfa may be obtained by the use of a certain amount of the soil from fields growing good crops of these plants, which we may feel sure contain an abundance of the bacteria. This method has proved most successful. Such soil is not difficult to obtain in any of the provinces save, perhaps, Manitoba and the Northwest Territories. Directions for using these bacteria-containing soils may be briefly given as follows: The soil containing the bacteria is mixed with a larger quantity of soil, and this broadcasted over the area to be sown with the clover or alfalfa, as the case may be. The field is at once thoroughly harrowed. This may be known as soil inoculation. Another method is to place the bacteria-holding soil in a vessel, such as a pail, and pour on water. Stir and allow to settle. After standing a little time, decant the supernatant soil extract and thoroughly moisten therewith the seed of the legume. The seed should be sown as soon as it has sufficiently dried. In connection with inoculation for alfalfa it is of importance to note that Professor Cyril G. Hopkins, of the Illinois Experiment Station, has conclusively shown that soil growing sweet clover (*Medicago alba*) may be effectively used for the inoculation of alfalfa.

For many years past, as is well known, particular attention has been paid by Prof. Shutt to the system of soil enrichment by the growth of legumes, and to the various means that could be taken to obtain a vigorous growth of the crop. Experience and observations have shown that the necessity of inoculation is not so great as was at one time thought. We are led to believe, he adds, that the existence of the bacteria that serve to fix the nitrogen in the legume is by no means restricted to small or isolated areas. We have found—at all events, in Ontario and the Eastern provinces—that failures in the past to obtain a good catch of clover have been due rather to deficiency of moisture, an unsuitable mechanical condition of the soil, poverty in humus, or insufficient drainage, than to the absence of nitrogen-assimilating germs. The killing out of clover may, we think, in the majority of cases be attributed to the severity of the winter or water lying upon the soil in spring. The general—though probably not universal—presence of root nodules on the clover in Ontario and the East leads us to believe that special means for inoculation have not been necessary, save, perhaps, in exceptional instances in the aforementioned provinces. It is due to these facts, we consider, that there has been no general demand for inoculating material.

In a recent tour through the larger agricultural districts of British Columbia the writer found these organisms present upon every root of clover examined, and especial care was taken to obtain information upon this matter in all the agricultural districts visited. The same stands true alike for the irrigated soils of the dry belt (Nicola and Okanagan Valleys), as well as for the lower Fraser and the Coast soils and those of Vancouver Island. The luxuriant crop of clover observable in British Columbia almost everywhere this year convinced me that inoculation was not generally necessary in that Province.

It would seem from certain of the enquiries lately received that there is an impression abroad that the benefit to be derived from the nitrogen-fixing bacteria can be obtained directly from inoculation of the soil, i.e., without the agency of a clover or other legume crop. This is, of course, erroneous, for these beneficial bacteria are only of assistance to the legumes. It is only through the growth of the clover (or other legume) and the subsequent decay in the soil of its roots (or whole plant) that the soil is enriched in humus and nitrogen. It is obvious that where clover-bearing nodules on its roots grows luxuriantly, inoculation is unnecessary. Where this condition is absent, cultures may be had from the O. A. C.



**W. D. Flatt's Clydesdale Sale.**

The auction sale at Hamilton, Ont., on May 17th, of 43 Clydesdale fillies, imported by Mr. W. D. Flatt, proved a very successful event, considering that the fillies were quite young and in thin condition, most of them under two years, many of them under one year, only half a dozen three years old, and many looking quite gaunt from the voyage of twenty days, two days of which they were without food, nearly a week on the railway, and just recovering from the distemper, which commonly affects horses on the voyage at this season. Very few, we venture to say, were optimistic enough to predict an average of over \$260 each before the sale commenced, though the high-class quality of the stock was admitted and admired, clean, flat bone, of good size; big, sound feet, and true action being a common characteristic, while the breeding was of the best. There was a very large attendance of farmers, and the acknowledged scarcity of good brood mares in the country was evidenced by the brisk bidding, which continued till the last lot was disposed of. The highest price, \$565, was paid by Mr. John McKenzie, Keyward, Ont., for the beautiful bay filly, Adriana, foaled in July, 1903, sired by Baron's Peer, a son of the noted Baron's Pride. The same buyer paid \$345 for the yearling, Lilly of Mains, by McKinley. The second highest price, \$500, was paid by McDonald Innis, of Brooksdale, for Jip, a capital bay, coming three in June, sired by Royal Patron, by the famous Prince of Carruchan. The sale was conducted on first-class principles, as are all Mr. Flatt's sales, and the auctioneers, Capt. Robson and Mr. T. Ingram, did excellent work in disposing of the stock. Following is the list of sales, with date of birth of animals and address of purchasers:

Adriana, July, 1903; John McKenzie, Keyward.....	\$505
Jip, June, 1902; Donald Innis, Brooksdale.....	500
Magnifica, May, 1903; E. Cressman, Haysville.....	395
Pavonia, June, 1903; Wm. Irwin, Rosemount.....	375
Gloriosa, April, 1903; Samuel Barber, Rosemount.....	375
Royal Nora, June, 1902; Chas. A. Adams, Brantford.....	360
Lilly of Mains, May, 1904; John McKenzie.....	345
Sonora, June, 1903; J. W. Innis, Woodstock.....	325
Portia, April, 1904; Geo. Miller, Brougham.....	330
Juliet, June, 1903; J. D. O'Neil, V.S., London.....	310
Lady Brown, May, 1902; T. E. Robson, Ilderton.....	310
Grace Anderson, May, 1903; Marshal Lyons, Dundas.....	305
Dido, May, 1903; Chas. Rankin, Wyebridge.....	300
Rose of Towle, May, 1902; Dr. O'Neil, London.....	305
Azalea, April, 1903; H. Wells, Teviotdale.....	305
Lady Alice, July, 1902; Valentine Ficht, Orlel.....	300
Lucretia, July, 1903; Jos. Haffey, Mono Mills.....	290
Mary Gartley, May, 1903; Dr. O'Neil.....	295
Lalla of Bents, 1902; Dr. O'Neil.....	290
Alba, May, 1903; John B. Berg, Amulree.....	275
Bell of Mains, June, 1903; Dr. O'Neil.....	280
Artus, May, 1902; A. Springer, Kincardine.....	280
Luna, May, 1902; W. J. Shean, Owen Sound.....	270
Gem, June, 1903; A. Hyslop, M.P.P., Walton.....	270
Queen Mat, April, 1904; Geo. Miller, Brougham.....	265
Lutea, April, 1903; Chas. Rankin.....	260
Mary Anderson, June, 1904; O. Collins, St. George.....	255
Viola, June, 1903; J. E. Desnoy, Greenwood.....	250
Peggy McKinley, April, 1904; Wm. Argo, Eden Mills.....	250
Chiming Belle, May, 1903; J. N. McFarlane, Sonya.....	250
Lady Frances, April, 1903; Dr. O'Neil.....	250
Lady Ascot, May, 1904; S. Young, Guelph.....	250
Amy, June, 1904; Geo. Grier, Grand Valley.....	230
Juno, May, 1902; J. N. McFarlane.....	235
Damsel, May, 1903; H. Dickinson, Glanford.....	235
Ceres, 1904; John Miller, Brougham.....	240
Madelon, July, 1903; A. McQuillan.....	230
Cordelia, June, 1903; J. N. McFarlane.....	215
Phebe, May, 1903; J. N. McFarlane.....	215
Hallena, June, 1904; John B. Berg.....	205
Marina, June, 1904; Geo. D. Fletcher, Biakham.....	200
Rosie Black; J. N. McFarlane.....	180
Pink, May, 1904; G. A. Brodie, Bethesda.....	150
43 fillies sold for \$12,260; average, \$261.37.	

**Automobile Legislation.**

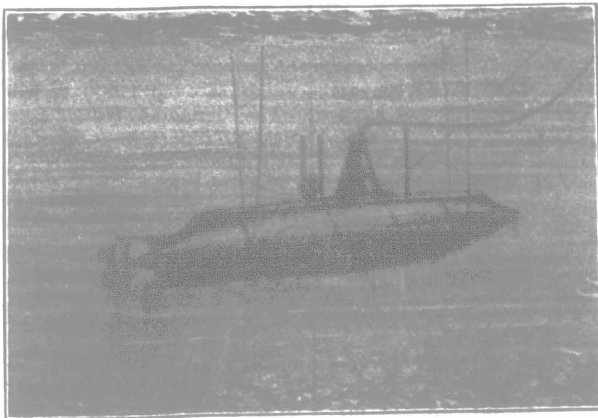
Two bills have been introduced into the Ontario Legislature, by Messrs. Lennox (North York) and Sutherland (South Oxford), respectively, to amend the automobile act. Mr. Lennox's bill was commented upon in last issue. As a result of a discussion in committee in the House, certain recommendations and clauses were adopted to be framed as one bill. Chief of these are: Placing the onus for violations of the law on the owners of motors; the locking or making fast of motor vehicles when left standing on any highway or in any public place; the placing of figures five inches in length in a conspicuous place on the back of the motor, in such a manner as to be plainly discernible by night or day. Except in cities, towns, or incorporated villages, the speed of the motor on approaching within 100 yards of a vehicle drawn by a horse or horses, shall be reduced to seven miles an hour. The question of increasing the license fee was left to the Government.

**Likes the Knife at 70 Years.**

I received the premium knife all safe, bright and clear, and up to my expectation. I think it will serve my purpose all right as a farmer, and probably all my days, as I have passed my 70th year lately. Wishing you success.  
D. McCALLUM.  
Bruce Co.

**P. E. Island.**

The spring here is not so early as usual. At this writing, May 15th, seeding is very little more than begun. The weather keeps cold, and there is little grass showing yet. Stock feed is very scarce, both hay and oats; the latter selling for seed at 55c. to 60c. per bushel. Potatoes are worth only 16c. per bushel for export. Butter is scarce, and high in price. Eggs sell for 18c. per dozen. Timothy and clover seed are higher here than ever before. The best grade of clover retails for 18c., and the best timothy at 7c. per pound. Most of our farmers now insist on having only the very best seeds. A few years ago P. E. Island was a dumping ground for a great amount of trashy seeds, con-



A Submarine Torpedo Boat.

taining some bad weeds, such as wild mustard. But since the establishment of the Seed Division of the Dept. of Agriculture, under the able management of G. H. Clark, our farmers have been educated to demand only the best of seeds. The seed show in Charlottetown during the latter part of April was a grand success. There were over 100 entries of grain, grass seeds and potatoes. Exhibits of grain were made by several who had followed along in the lines of hand selection for four to five years, having begun in the McDonald-Robertson seed-grain competition. F. W. Broderick, Maritime representative of the Canadian Seed-growers' Association, and Mr. Newman, from Ottawa, were present and placed the awards. The attendance at the show was small, on account of the impassable state of the country roads. Only those near the line of railway could attend.

A convention of "Institutes" was held in town the day previous to the seed show, at which were gathered delegates from most of the Farmers' Institutes on the Island, to discuss matters connected with institute work in particular and agricultural matters in general. This

meeting induced the Local Government to supply alfalfa seed to farmers who were willing to give it a thorough test. Alfalfa has never been successfully grown here. It is thought by many that our hard clay subsoils hinder it from rooting deep enough to get properly established. It will be tested by a good many farmers on different sections of the Island this year, and this ought to go a long way to settle the question as to its suitability to our conditions of soil and climate. At the above-named convention D. Drummond, of the Permanent Institute staff, was present, and gave two exceedingly practical addresses on "The dairy cow." This was a subject of great importance to our factory patrons, as we believe that what is wanted first and most to make our dairying pay is a better dairy cow, which can be got only by careful selection in breeding, and the merciless culling out of all that do not yield a profit over their cost in feeding.

When the dairymen of P. E. Island can be induced to test the value of their cows by the scales and Babcock machine there will be hope for our waning dairy business. Dairying will never pay here or anywhere else till the standard of the production of our milk cows can be raised to nearly double what it is now. This can be accomplished only by careful selection and more suitable feed, and by feeding them right up to their capacity all the year round. W. S.

**Cultivates Twice a Week.**

Replying to your questions re my methods in corn growing, would say: My soil is mostly sand and loam. I plant in hills three feet apart, about four kernels to the hill. To protect it from crows, the corn is coated lightly with coal tar. Before the corn comes up it is harrowed with a light harrow; if ground is solid from rain we harrow twice. Just as soon as the rows can be seen, cultivate with one-horse cultivator, twice a week, if time will permit; from two to three inches deep first two weeks, gradually getting lighter as the roots spread. Continue cultivation till corn is from three to four feet high. Constant cultivation retains soil moisture; and corn requires abundance of moisture to make rapid growth in hot weather. We hand-hoe thoroughly once; if field is weedy, go through second time, or third if necessary. I would estimate that a farmer could make from \$3 to \$5 per day cultivating his corn crop.

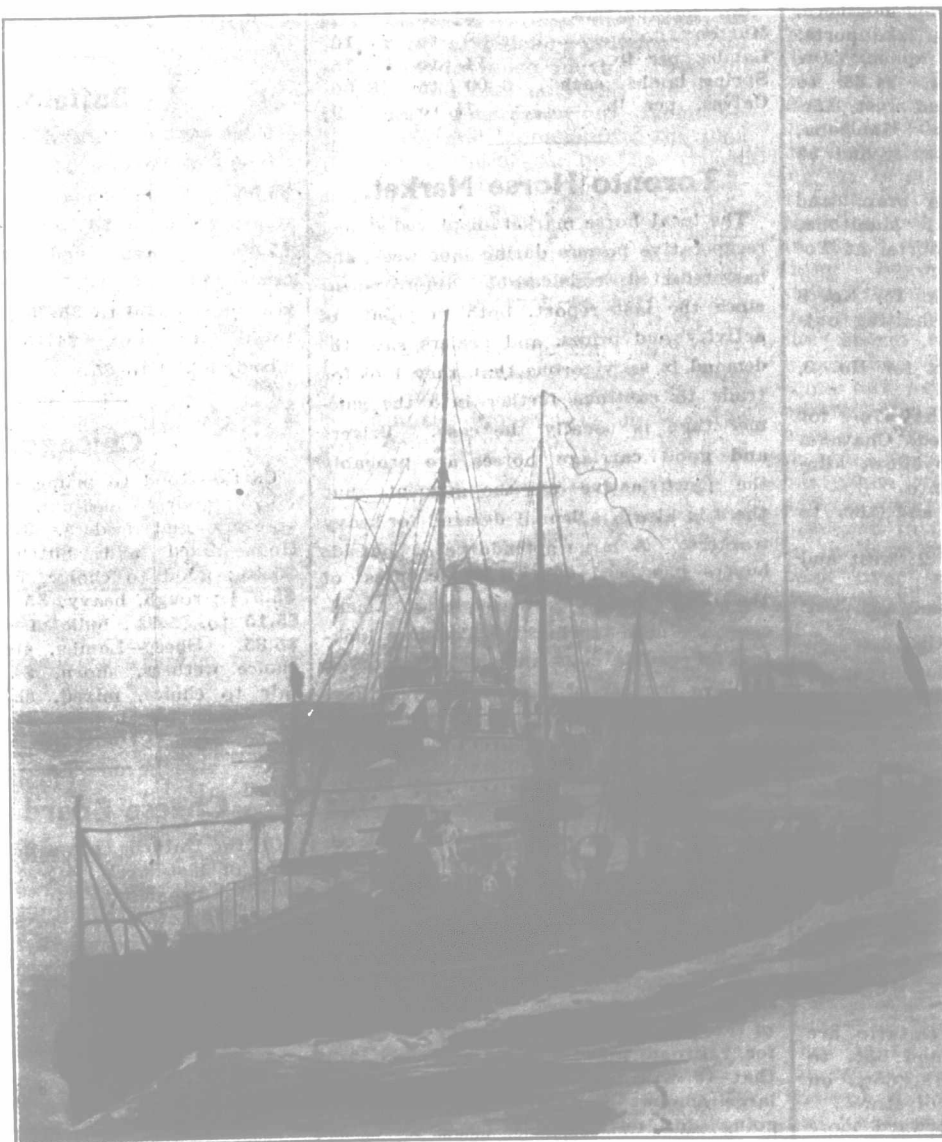
I have had best results with corn on sandy soil, where a liberal application of good wood ashes has been applied. J. W. CLARK.

Brant Co., Ont.

**Cultivates Continually for Ten Weeks.**

Our corn land is a clayey loam, and some limestone gravel soil. We get the best results from planting 8 ft. 10 inches apart each way; about ten pounds of seed to the acre. We are not much troubled about crows, as we commence to cultivate as soon as the corn is through the ground, using a two-horse corn cultivator; we continue this cultivation as long as we can get the horses through the corn without breaking it down too much. We cultivate shallow, unless the ground becomes packed by heavy rains, after which we have to go deeper to loosen up below the crust. One team of horses and a man with a two-horse riding cultivator will take care of 20 acres of corn, and I think it should be gone over continually for about ten weeks. I am sure the longer you cultivate corn the better it will ear. Keeping the soil constantly loose keeps it moist and warm, and these are the two essential conditions for the successful growing of corn. I could not tell how much it would pay to cultivate as above described, but I do know that it pays well. Especially profitable is the late, shallow cultivation, when the corn is tasseling out, and I am sure it will increase the production of ears. I do not cultivate before the corn is up, unless the ground gets crusty, in which case it is well to go over the land with a light harrow.

LOUIS P. HUBBS.  
Prince Edward Co. Ont.



Torpedo Boat.

MARKETS.

Toronto.

LIVE STOCK.

Receipts of live stock at the Western Cattle Market last week amounted to 226 cars, and included 3,701 cattle, 455 sheep and lambs, 3,440 hogs and 417 calves. At the Union Stock-yards, Toronto Junction, the week's receipts amounted to 157 cars, and included 2,871 cattle, 18 sheep, 1,460 hogs, 46 calves, and 2 horses.

Export Cattle—Exporters fairly well supplied with cattle last week, and with the British markets falling lower, report they are buying cattle at about 25c. per cwt. lower. Choice are quoted at \$5.50 to \$5.75, good to medium at \$5.30 to \$5.50, others at \$5 to \$5.35, and bulls at \$4.25 to \$4.50.

Butchers' Cattle—Good to choice are quoted at \$5.40 to \$5.75, fair to good at \$4.80 to \$5.20, mixed lots, medium, at \$4 to \$4.75, and common at \$3 to \$3.50. Cows sold at \$2.50 to \$4.50, and bulls at \$2.90 to \$3.50.

Stockers and Feeders—Feeders are quoted at \$4 to \$5.50, bulls at \$3.40 to \$3.80, stockers at \$2.50 to \$4.25, and stock bulls at \$1.75 to \$2.50.

Milch Cows—There is not much trade in this line. The range of prices is lower, at \$30 to \$60 each.

Calves—The market is steady for good calves. Others are slow of sale. Prices are quoted unchanged, at 3½c. to 5½c. per pound, and \$2 to \$10 each.

Sheep and Lambs—Export sheep are quoted at \$3.50 to \$5.25 per cwt., mixed at \$4 to \$4.50, grain-fed lambs at \$6 to \$6.50, barnyards at \$3 to \$4, and springs at \$3 to \$6 each.

Hogs—The market has a weak tone, and dealers say the prospects are for lower prices. Quotations a shade lower, at \$6.85 per cwt. for selects, and \$6.60 for lights and fats.

BREADSTUFFS.

Wheat—Ontario—No. 2 red, 95c. to 96c., Goose, nominal, at 85c. to 86c. Manitoba—No. 1 northern, 96½c.; No. 2 northern, 93½c.; No. 3 northern, 88c., lake ports.

Flour—Continues easy and quiet. Ontario, 90 per cent. patents, \$4.85 to \$4.45, buyers' sacks, east and west, 15c. to 20c. higher for choice. Manitoba, \$5.40 to \$5.50 for first patents, and \$5 to \$5.10 for bakers'.

Millfeed—\$15 to \$15.50 for bran, and \$17 to \$17.50 for shorts. Manitoba, \$18 for bran and \$20 for shorts, at Toronto and equal points.

Barley—45c. for No. 2, 43c. for No. 3 extra, and 41c. for No. 1, malting outside, Toronto freights.

Rye—Nominal, 69c. to 70c. for No. 2, f.o.b., outside.

Corn—Canadian nominal, at 47c. for yellow, and 46c. for mixed, Chatham freights. American—No. 3 yellow, kiln-dried, 59½c., on track, Toronto.

Oats—39c. to 40c., west, and 40c. to 41½c., east.

Peas—68c. to 69c. for No. 2, west and east, and 70c. for milling.

Buckwheat—59c. to 60c., east or west.

COUNTRY PRODUCE.

Butter—The market continues easy in tone. Quotations unchanged.

Creamery, prints ... 18c. to 20c. do, solids ... 18c. to 19c.

Dairy lb. rolls, good to choice ... 16c. to 17c. do, large rolls ... 15c. to 16c. do, medium ... 14c. to 15c.

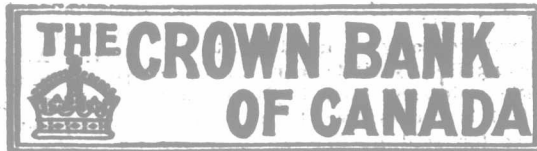
Cheese—Steady; new is quoted at 10c. to 10½c. for large and 11c. for twins. Old is 11½c. for large and 12c. for twins.

Eggs—Some dealers quote 14c. Others consider the market firm at 14½c. to 15c. The larger number of sales are being made at the latter figures.

Potatoes—About steady. Ontario are quoted at 60c., on track, and 65c. to 70c., out of store; eastern, 65c., on track, and 70c. to 75c., out of store.

Hay—Hay is coming forward more freely, quoted at \$8.50.

Bobol—Steady at \$6 per ton, for car lots, on track, here.



Capital Authorized, \$2,000,000.00. Head Office, Toronto, Ont. Edward Gurney, President.

EVERY DESCRIPTION OF BANKING BUSINESS TRANSACTED

Special attention given to accounts of Cheese Factories, Drovers and Grain Dealers, and all out-of-town accounts. Farmers' Notes discounted, Farmers' Sales Notes collected and advances made against their security.

Municipal and School Section accounts received on favorable terms. SAVINGS BANK DEPARTMENT Deposits of Twenty cents and upwards received, and interest at 3 per cent. per annum, compounded four times a year, without presentation of passbook. No delay in the withdrawal of any portion or the whole of the deposit.

G. de C. O'GRADY, General Manager.

Beans—Quoted unchanged. Hand-picked \$1.75 to \$1.80; prime, \$1.65 to \$1.70, and under-grades, \$1.25 to \$1.50.

City Market, Retail Prices.

Wheat, white	98 to 1 02
do, red	98 to 1 02
do, goose	77
Peas	78
Oats	46
Buckwheat	54
Rye	75
Barley	49
Hay, No. 1 timothy	10 00 to 11 00
do, clover or mixed	7 00 to 9 00
Straw, sheaf	10 00 to 11 00
do, loose	8 00
Dressed hogs, light, cwt.	9 50
do, heavy	9 00
Butter	22 to 25
Eggs	15 to 17
Old chickens, dressed, per lb.	10
do, live	10
Spring chickens	30
do, dressed	30
Fall chickens	12 to 13
Turkeys, live	14
do, dressed	14 to 15
Potatoes, per bag	70 to 85
Carrots, per bag	60 to 75
Parsley, dozen	20
Rhubarb, dozen	25
Beets, peck	20
Apples, Spies	2 00 to 3 00
do, others	1 25 to 2 00
Parsnips, bag	85
Cabbages, dozen	50 to 75
do, new, case	2 00
Turnips, bag	35
Lettuce, dozen	30
Radishes, dozen	40
Beef, hindquarters	9 to 10½
do, forequarters	6½ to 7½
Mutton	8 to 10
Lambs, per lb.	14 to 15
Spring lambs, each	6 00 to 8 00
Calves, per lb	7½ to 9½

be young, fresh and sound, ranging in weight around 1,500 to 1,600 lbs. The Canadian Horse Exchange, Jarvis Street, report that current prices range as follows:

Single cobs and carriage horses, 15 to 16.1 hands	\$160 to \$250
Single drivers, 15 to 16 hands	125 to 206
Matched pairs, carriage horses, 15 to 16.1 hands	350 to 700
Delivery horses, 1,100 to 1,200 lbs.	125 to 200
General-purpose and express horses, 1,200 to 1,350 pounds	125 to 200
Draft horses, 1,350 to 1,750 pounds	140 to 225
Serviceable second-hand workers	60 to 110
Serviceable second-hand drivers	60 to 110
The present range of prices in this market, according to Burns & Sheppard, is:	
Single roadsters, 15 to 16 hands	\$150 to \$175
Single cobs and carriage horses, 15 to 16.1 hands	165 to 225
Matched pairs and carriage horses, 15 to 16.1 hands	350 to 500
Delivery horses, 1,100 to 1,200 lbs.	165 to 190
General-purpose and express horses, 1,200 to 1,350 pounds	125 to 200
Draft horses, 1,350 to 1,750 pounds	180 to 240
Serviceable second-hand workers	60 to 90
Serviceable second-hand drivers	70 to 85

Buffalo.

Hogs—Active; heavy, \$5.65 to \$5.70; mixed and Yorkers, \$5.60 to \$5.65; pigs, \$5.55 to \$5.60; roughs, \$4.60 to \$5.00; stags, \$3.25 to \$3.75; dairies, \$5.40 to \$5.60. Sheep and Lambs—Active; lambs, \$4.50 to \$6.75, a few at \$6.80; yearlings, \$5.50 to \$5.75; wethers, \$5.25 to \$5.50; ewes, \$4.75 to \$5; sheep, mixed, \$2.50 to \$5.

Chicago.

Cattle—Good to prime steers, \$5.60 to \$6.75; poor to medium, \$4.40 to \$5.50; stockers and feeders, \$2.75 to \$5.25. Hogs—Mixed and butchers', \$5.10 to \$5.40; good to choice, heavy, \$5.30 to \$5.57½; rough, heavy, \$5 to \$5.25; light, \$5.15 to \$5.42; bulk of sales, \$5.30 to \$5.35. Sheep—Lambs, steady; good to choice wethers, shorn, \$4.75 to \$5.25; fair to choice, mixed, shorn, \$3.50 to \$4.50; native lambs, shorn, \$4.50 to \$6.50.

Cheese Board Sales.

On the Ontario cheese boards the latter part of last week prices ranged as follows: Brantford, 9½c.; Napanee, 9½c. (bid); Listowel, 9½c. to 9 5-16c.; Perth, 9½c. to 9½c.; Iroquois, 9½c.; Ottawa, 9½c. for white, 9½c. (bid) for colored; Kemptonville, 9½c. (bid); Farnham (Que.), 9 1-16c.; Huntingdon (Que.), 9 7-16c.

British Cattle Market.

London.—Cattle are quoted at 11½c. to 12½c. per pound; refrigerator beef, 9½c. to 9½c. per pound; sheep, 13c. to 14½c. per pound.

Montreal.

LIVE STOCK.

The local market was about steady on cattle; choice animals being \$5.50 to \$6; fine, \$5 to \$5.50; good butchers' stock, \$4.25 to \$4.75; medium, \$3.25 to \$4, and common, \$3; milch cows, \$20 to \$30 for common, and \$35 to \$50 for good. Calves sold at \$2 to \$4 for common, to \$5 to \$7 for good. Lambs brought from \$3 to \$6 each, and sheep, 3½c. to 4½c. per lb. Hogs were very firm late last week, but this week receipts showed considerable increase, so that prices declined somewhat. However, demand for all sorts of hogs is so active that the price is still very high, being 7½c. to 7½c. for selects, and 7c. to 7½c. for heavy and mixed stock.

Horses.—General-purpose animals are still selling at \$150 to \$200. Coal-cart horses, good blocks, sell at \$175 to \$240 each, and heavy draft animals, 1,500 to 1,600 lbs., bring \$250 to \$275 each, lighter ones \$50 less. Ordinary cheap driving animals sell at \$75 to \$125 each. Carriage horses range from \$200 to \$500.

Hay.—The market was steady and unchanged this week, at \$9 to \$9.25 per ton for No. 1; \$8 to \$8.25 for No. 2, and \$7 to \$7.50 for shipping hay.

DAIRY PRODUCTS.

Butter.—During the past week, the market for butter has been up above 19c., and it is now down again to about 18½c. The chances are that from this forward there will not be any further advance, at least until the full grass article is on the market. Choice dairy butter is very scarce, and prices are within about a cent of the price of Quebec creamery.

Cheese.—At the present, there is a slightly easier feeling in the cheese market, and it is doubtful if sales of finest Ontario could be made at more than 9½c., the range being from 9½c. Quebec cheese sells all the way from 9½c. to 9½c.

Eggs.—The market continues very firm, and prices are rather higher than they were at any time last week.

Potatoes.—The market has shown very little change during the past week. Merchants are able to buy finest stock at 55c. per bag of 90 lbs., carloads, on track, and they are prepared to re-sell the same at about 60c. in a jobbing way, or to sell in small loads, delivered into store, at 65c.

Grain.—Oats are about the only thing being dealt in here, and even oats are so scarce and dear that there is very little doing in them. Sales have been made during the past few days at 44½c. for No. 3 oats, in store, and at 45½c. for No. 2, car lots.

Clean springs and woodwork of beds carefully, going over joints and ends of slats and every crevice with corrosive sublimate, by way of guarding against possible dust creatures.

Pausing uncertainly before a desk in the big insurance office, the Hibernian visitor said to the clerk: "O! want to tek out a pawlicy."

"Life, fire or marine?" drawled the dapper clerk with infinite sarcasm.

"All three, O!m thinkin'," retorted the applicant. "O!m goin' fer a stoker in th' navy."

After being without a girl for a week, the mistress of a Harlem apartment was showing an applicant over the flat, says Harper's Weekly. She had been liberal in her promises of privileges in the way of afternoons and nights off. She had even gone so far as to extend the hour of the girl's return on these nights and to agree to her using the sewing machine after her work was done.

The new girl seemed pleased, and the mistress was beginning to hope. They walked back into the dining-room, and the girl had actually removed one hatpin from her hat. Then her smile faded.

"Do you do your own stretchin'?" she demanded.

"Do we do our own what?" asked the puzzled mistress.

"Stretchin'," repeated the new girl.

"I don't understand."

"Stretchin'," repeated the girl again. "Do you put the stuff on the table at meal time and stretch for it, or do I have to shuffle it around?"



**Life, Literature and Education.**

**Messenger Boy and Millionaire.**

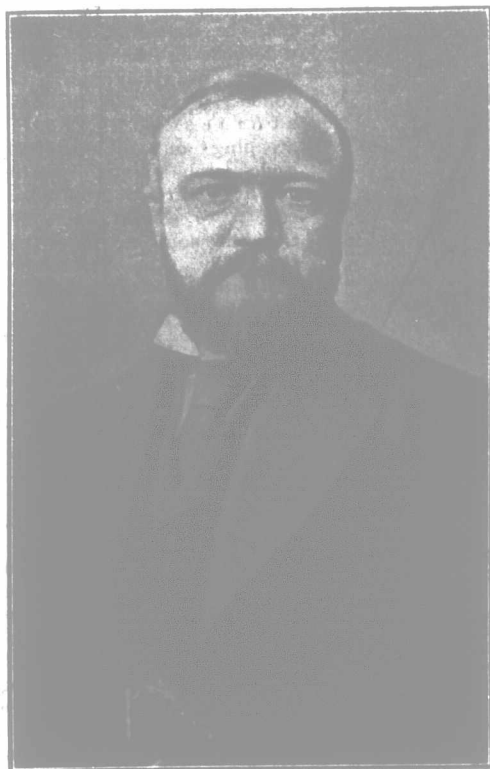
Andrew Carnegie's recent gift of \$10,000,000 to provide retiring pensions for professors of colleges, universities and technical schools in Canada, the United States and Newfoundland, has again set people's tongues a-going as to whether it will be possible for the big purse to dwindle down enough to permit the iron-master king to die even moderately, respectably poor. Financiers are almost universally of the opinion that the cannie Scotchman is foxy enough, and that, since his income much more than covers the amount of his yearly donations, he may well talk about getting to the bottom of his pile. At the same time, the enormous total which he has already given away, staggers ordinary comprehension, and the world is not likely to grumble much so long as Mr. Carnegie chooses to divert such workable amounts into channels so ostensibly pro bono publico as those which so far have been the medium of his favors.

Up to the present time he has disposed of close upon \$140,000,000. Of this amount, \$37,500,000 has been expended in libraries, \$59,852,000 in colleges and schools of various kinds, \$5,000,000 for the Heroes' Families' Relief Fund, \$4,000,000 for Employes' Pension Fund, \$1,500,000 for Allied Engineers' Society, \$1,500,000 for the Peace Temple at the Hague, and \$29,000,000 to other benefactions. Besides this, he has given away during the present year, \$500,000 to Maine University; \$125,000 to the Rensselaer Institute, Troy, N. Y.; \$125,000 to Oberlin College; \$150,000 to Syracuse University; \$15,000 to Oberlin students who lost money through the Mrs. Chadwick affair with Oberlin Bank; and \$635,000 in other benefactions.

The Scotchman who is thus enabled to throw money about in this wholesale manner, was born at Dunfermline, Scotland, Nov. 25th, 1837. When eleven years of age he came to the United States with his parents, who settled in Pittsburg, the spot which was to prove a veritable Alladin's garden to the little Scotch laddie. The jewelled fruit at first, however, only came in the form of various situations, chiefly about the railway stations, as telegraph messenger, operator and clerk to the manager of the Pa. R. R. The big plum, which was to form the nucleus of the big fortune which followed, appeared with the invention of the sleeping car. Mr. Carnegie did not invent this modern luxury, but he was shrewd enough to see its possibilities, and went into partnership with Mr. Woodruff, the actual inventor, in booming the idea. Mr. Woodruff's genius and Mr. Carnegie's financial ability were a good combination, and from this time the money—and other things—came in fast. Mr. Carnegie was soon made president of the Pa. R. R. Shortly

afterwards he speculated in oil wells, and found that not for Rockefeller alone did "oil blessings flow." The oil wells, in fact, yielded him a big fortune—a fortune which enabled him to take hold of the iron and steel business in a way which speedily placed him in the position of iron king of the world.

For some time, however, Mr. Carnegie has been withdrawing gradually from active life in connection with the various manufacturing concerns which occupied so much of his time, and only the other day he gave up the presidency of the Iron and Steel Institute of Great Britain, presenting \$25,000 to the research fund as a parting gift. During the winter he usually resides in New York city, but when May comes he invariably sets sail with his wife and daughter for Scotland, where at his beautiful home at Skibo Castle the family spends four months of each year. For some time Mr. Carnegie has devoted himself to literary work, and has published several books—"Triumphant Democracy," "An Ameri-



**Mr. Andrew Carnegie.**

The millionaire who is trying hard not to die rich.

can Four-in-Hand," "Wealth," and "Round the World."

Mr. Carnegie has never said, as has been reported so often, that he considers it a disgrace to die rich. What he has said, and still affirms, is that the man who dies, "leaving behind him millions of wealth which he might have administered during life, will pass away unwept, unhonored and unsung. . . . Of such as these, the verdict will then be, 'The man who dies thus rich, dies disgraced.'" This disgrace Mr. Carnegie is evidently trying to evade, and whether he can succeed in materially reducing his fortune remains to be seen. His closest friends at least maintain that he will yet die, "if he lives long enough," a comparatively poor man, but he has still \$300,000,000 left.

**"Back to the Land."**

The "Farmer's Advocate and Home Magazine" for May 4th contained a short sketch of the literary work of Mr. William Wilfrid Campbell. We may be pardoned for reproducing the following acknowledgment written by the poet from his Ottawa home:

"I thank you for the kind appreciation in the "Farmer's Advocate and Home Magazine" of my verse. Frankly, I like it very much. A sincere opinion which is not hypercritical, of literature, is not too common nowadays. I see that you speak of the mission of Mr. Rider Haggard to America, and I like the whole trend of your article. I love nature and the country, and believe that the greatest cure for many of our modern ills and problems which beset us, would be a return to the land. I wish that we could rouse our people to the necessity of this, if our country

is to be worthy of the best ideals in the past. What we want is the simpler, sturdier, manlier life which can only be lived by a rural population. A paper like yours can do a great good. I have more faith in the farmer, in the long run, than any other class, if he only remains a thinker and tries to read and desire culture. You can do much in this direction if you can only get the coming generation of farmers—men and women—into the idea that there can be the truest refinement, culture and intelligence on the farm. What we want on the Canadian farm is a greater sense of beauty, comfort and homely pleasure, such as rural England knew in the old days. I thank you again, and wish you success, because I think your class of readers is the most important class the country contains. Yours sincerely,

W. WILFRED CAMPBELL.

We reproduce below the opening and closing stanzas of a poem written by Mr. Campbell last year, entitled "Back to the Land," which puts in verse what Mr. Rider Haggard so vigorously puts in prose:

"Back to the land, yea, back to the land;  
Back to the spaces wide sky-panned;  
Back to the opens glad and sweet,  
From the moil and toil of the crowded street,  
Back to the life by mountain and lea,  
As nature intended it should be.

"Back to the gardens of God wide given,  
The life of the open under heaven,  
Where woman is woman and man is man,  
Not fearful to love, to hope and to plan,  
The oldest, the wisest, the truest life,  
Is the lore of the sickle and pruning knife,  
And the kingliest king is he who sows,  
And lives on the wealth that his own ground grows.

"I sing the song of the countryside,  
Of the glad vast spaces, open and wide,  
Where every acre, from prairie to hills,  
Will give of its joy to the hand that tills.

Yea, scatter your homes! To each man give

Room to breathe, be happy and live;  
Room for freedom, beauty of life;  
Room to conquer or die in the strife;  
Room to be women; room to be men;  
Not demons and thieves and apes in a den.

Not frayed-out, impotent fags of a race,  
Dead to the burdens all earth must face;

Where the day is day and the night is night,  
And the fight with nature the only fight,

Where body and heart and brain can grow

To the wisdom and joy a man should know;

Room to live; to strive and to die,  
Out in the open, under the sky,  
Owning no master, answering no call,  
But the voice of the mystery round about all."

**The "Divinity that Shapes Our End."**

How many times we come to a crisis in life when some obstacle confronts us which we think will be a terrible calamity, and will perhaps ruin us if we cannot avoid it. We fear that our ambition will be thwarted, or that our lives, perhaps, will be wrecked. The dread of the shock which we think will overwhelm us, as we come nearer and nearer to it, without any possibility of averting it, is something frightful. Many a time in the writer's life has he come to such a point—when it seemed as if all was lost—and yet something beyond his control has straightened out the tangle, solved the puzzle which seemed insoluble; the storm which threatened shipwreck has passed over, the sun has come out again, and everything has become tranquil and serene once more. If we look ahead, the troubles seem thick and threatening; but when we get there, we usually find a clear path, plenty of room, pleasant faces, and people to help us in case of need. When we look back over our lives, how few accidents have really happened to us. Many have threatened, but, somehow, things have come out right in spite of us, so that we have wasted our vitality, we have grown old and wrinkled and bent, and have shortened our youth anticipating troubles and worrying about calamities which never were to happen. Why should we thus needlessly throw away happiness and usefulness? It seems strange that when we know perfectly well that we are dependent for every breath we draw upon a Divine Power which is constantly providing for us and protecting us, we do not learn to trust it with absolute confidence and resignation. There is only one thing for us to do, and that is to do our level best right where we are, every day of our lives; to use our best judgment, and then to trust the rest to that Power which holds the forces of the universe in His hand, and which does all things well.—[O. S. Marden, in "Success."

### Lift Up Thine Eyes.

A little while, and ye shall not see ME: and again, a little while, and ye shall see ME, because I go to the Father.—S. John xvi. : 16.

Touch ME not; for I am not yet ascended to My Father.—S. John xx. : 17.

"Alleluia! not as orphans  
Are we left in sorrow now;  
Alleluia! He is near us,  
Faith believes, nor questions how:  
Though the cloud from sight received Him,  
When the forty days were o'er,  
Shall our hearts forget His promise,  
'I am with you evermore?'"

Christians of many differing opinions unite in celebrating our Lord's Birth, Death and Resurrection; how is it then that our churches are nearly empty on that other great day—forty days after Easter—which has for so many hundreds of years been set apart to commemorate His Ascension? Is it because people fancy that the crowning triumph of the Man Christ Jesus was of little consequence, or is it because they don't really believe His strange saying: "It is expedient for you that I go away?"

The disciples might well have felt that His going away would leave them "orphaned." How could they rejoice in the promise that "another Comforter" would be sent when their hearts cried out for the Master they knew and loved? But it is often true even with earthly friends that they are really nearer to us—nearer in the mysterious, invisible soul-union which is the reality of friendship—when their bodily presence is removed from sight. Although the disciples watched their Lord as He left them, the great parting promise could not be broken: "Lo, I am with you always, even unto the end of the world. Amen." Though vanished from their bodily sight He would faithfully keep the tender promise: "I will not leave you comfortless; I will come to you." The promise of "another" Comforter was only a pledge of additional help. I can't help thinking that Zechariah foreshadows this twofold strengthening in his mysteriously beautiful parable about the seven-branched candlestick, which is perpetually supplied with oil from two olive trees, "which through the two golden pipes empty the golden oil out of themselves." The angel said to him, "These are the two Anointed Ones, that stand by the Lord of the whole earth." If the seven candlesticks are the seven churches, surely the inexhaustible supply of oil can only be obtained from God, Who pours grace continually into the souls of men through the Holy Spirit and the Man Who is His "FELLOW"—and ours. Certainly the church has not been left "orphaned." St. Augustine put into words a great truth when he declared that Christ so came into the world as never to leave the Father, and so went unto the Father as never to leave the world.

If you will look closely at the texts given above you will see that they each contain a grand Christian paradox. "Ye shall see Me," the Master says, "because I go to the Father," as though men could not really see Him while His bodily presence was, like a veil, hiding His Person. The second text seems to imply that only after the Ascension could loving hearts really "touch" Him. In many other ways the Ascension was "expedient," but I don't intend to dwell on those to-day; my object being rather to awaken in you a vivid realization of the glorious possibility of walking joyfully through life with our eyes ever on our Master's face, and His hand closely clasping ours. How the thought makes one's heart beat! To see always the face we love best, to be thrilled through and through with the touch of His hand! Think what it means to be clothed always with "St. Patrick's Coat of Mail":

"Christ as a Light  
Illumine and guide me!  
Christ as a Shield, o'ershadow and cover me!  
Christ be under me! Christ be over me!  
Christ be beside me  
On left hand and right!  
Christ be before me, behind me, about me!  
Christ be this day within and without me!"



How could that be continually possible without the Ascension? We should then have been compelled to travel long miles to see Him, instead of simply having to lift up our eyes; we could hardly have got near enough to touch His garment, much less to clasp His hand, for the multitude would throng Him. Then even S. John could not always have leaned on His breast, as anyone whom Jesus loves may do now. Even in earthly friendship what we really want to see and touch is the soul rather than the body. If love were dead what possible satisfaction could there be in such an outward sign as the clasp of a hand or the sight of a face? It would give pain, not joy.

But the disciples who watched the Ascension might well think that the old saying had been literally fulfilled: "Knowest thou that the Lord will take away thy Master from thy head to-day?" Of what use was it to lift up their eyes, when they had watched Him go farther and farther away until a cloud hid Him from their straining sight? He ascended—where? "Into heaven," we say. But where is heaven? We stand on the earth, point into the sky above and say, "it is up there!" Yes, but at night, when our earth has turned round, if we still point into the sky and say that heaven is "there," we are declaring that it is in exactly the opposite direction. According to our ideas of space, the heaven to which we lift up our eyes is as far off from the heaven of an Australian

realities which lie above it, not in space, but in altitude of being? The 'everlasting doors' were 'lifted up,' and the proto-martyr was vouchsafed a glimpse into a world of unearthly splendour close to him, and saw his Divine Master standing to receive His brave and loyal servant."

It is not "telescopic" but spiritual vision that we need. Those who love God can find Him everywhere. What is nothing but a "common bush" to one is seen by another to be burning with Divine fire. The bush is the same, but the sight is different. Our Lord's counsel to one who lacks this spiritual sight is: "Anoint thine eyes with eye-salve, that thou mayest see."

Wherever in space the heaven may be into which His bodily presence ascended visibly, and from which He shall visibly come again on the Last Great Day, at least we know that He is most truly and vitally with us still. In a very real sense we cannot see any person with our bodily eyes, for personality is and must be invisible. When an earthly friend passes through the gate of death we never dream that to see and touch the lifeless body is to see and touch him. These outward things are indeed "dead" unless they are sacramental; unless, through the outward, visible sign, our souls can come into living touch with the invisible and spiritual personality which can never be really reached by our senses. If the touch of one hand be absolutely meaningless to you, while the

touch of another may have power to thrill you through and through, is it because of the difference in the actual flesh which your hand may be touching, or is the difference in the personality which only your spirit can touch? If the fantastic stories of souls stepping out of one body and inhabiting another could be carried into actual effect, we should soon find that the soul, far more than the body, was the person we had known; just as a person is the same though his body may be altered beyond recognition by time or some disfiguring accident. We may not be responsible for the outside, but we are for the inside—that is, for the real man. One person may, without effort on his own part, be as strong as Samson; while another may be a helpless cripple all his days on the earth. That is outside; but the real man inside may, in the first case, be weak and self-indulgent, and, in the second case, may have grown strong and beautiful through years of brave endurance. Wealth, physical strength and beauty, social position, etc., do not belong to the people to whom they are lent for a time. They may be taken

away even in this life, they certainly must be left behind at death; but treasure laid up in heaven, spiritual strength, beauty and rank really belong to the soul, and neither accident nor death can take them away. The more closely we look into these things the more plainly we see that the invisible is the real substance, while the visible is only a shadow or picture of it. Let us then set our hearts and fix our eyes steadily on realities rather than on shadows. Christ is the Ladder linking earth with heaven through the Ascension, as He linked heaven with earth through the Incarnation. Although the law of gravitation may keep our bodies low on the earth, He will keep us company here; and, although His Body has ascended into the heavens, we may "in heart and

mind thither ascend, and with Him continually dwell." Surely that glorious stair was not placed in position only for the use of the angels. Just "because" our Lord has gone to the Father we may see and touch Him all the time.

Do I repeat myself enough to grow tiresome, in these quiet talks? How can one help telling over and over again such a glorious message? I don't want to tell you anything new, I only want to remind you at every possible opportunity of the reality and gladness of our living unity with God through Christ. The inspiring "Sursum Corda!"—the "Lift up your hearts!"—rings down through the ages; how instinctive is the glad response—"We lift them up unto the Lord!"—that is continually rising from multitudes which only God can number.

"Run the straight race through God's good grace,  
Lift up thine eyes, and seek His Face.

Faint not nor fear, His Arms are near,  
He changeth not, and thou art dear."  
HOPE.

### Joan of Arc, Hearing the Spirit Voices.

Given to reverie, fond of solitude, holding somewhat aloof from the maidens of the village, though beloved by them all, Joan of Arc, the peasant girl of Domremy, on the banks of the Meuse, listened, as she tended her sheep upon the pastures, to the spirit voices which told her that to her it was to be given to be the deliverer of her native land, and thus she mused:

"I can deliver France! Yea, I must save the country! God is in me; I speak not, I think not, feel not of myself; and whither He shall send me I must go; and whatso He commands, that I must speak; and whatso is His will, that I must do; and I must put away all fear of men, lest He in wrath confound me."

Joan had been surrounded by mysticism from her birth. Tradition has it that the birds came down at her call, and that while she tended her flocks no wolf would come near to molest them. The very grass and flowers would sing to her, and the stars above would flash their messages into her listening ears. What wonder, then, to a mind so attuned, the shadows and imperfect forms of tree or shrub, as revealed by darkening twilight or cloud-draped moon, should take the shape of angel messengers, bidding her go on or come, in tones which must be obeyed. The girl heard the voices in the bells of the church, in the reveries of her youth, in the fountain, in the sighing of the winds, and in the rustling of the leaves—"Jeanne, Jeanne, go into France! I, Michael, the Archangel, bid you go and succor the Dauphin, for by you he shall recover his kingdom."

History gives us the sequel; tells us of that march at the head of ten thousand men to the relief of Orleans; of her brief triumphs, her later capture, her final martyrdom, and her most cruel death in 1431. On the spot where she died, in the market-place of Orleans, a statue stands to the memory of the gallant Joan, the Maid of Orleans.

H. A. B.

### Recipes.

Lemon Patty Cakes.—Beat yolks of 3 eggs well; add 1 cup white sugar, and beat again. Now add 1 tablespoon of lemon juice and 1 tablespoon cold water; 1 cup "Five Roses" flour, into which 1½ teaspoonfuls baking powder have been sifted, and the whites of the 3 eggs which have been beaten. Beat the whole briskly, and bake in patty pans.

Molasses Cake.—1 egg, 2-3 cup sugar, 2-3 cup molasses, 2-3 cup sour cream, 1 teaspoon ginger, 2 small teaspoons soda, a pinch salt, and 2 cups "Five Roses" flour.



Joan of Arc, Hearing the Spirit Voices.

**Jimmyson's Forgetery.**

By Ralph Wilbur.

Now, his real name was James; but, as his mother called him "Jimmy," and his father called him "son," why, everyone else called him "Jimmyson" for short.

"Goodness me!" he said. "Where could I have left my cap? Mama! Nora! Mike! Everybody! Have you seen my cap?" And he rushed here and there, upstairs and down, in the barn and out, looked under the sofa, behind the hat-rack and every place he could possibly think of where a wandering cap, which was never very particular about what it did, could hide.

He had just finished his luncheon and was anxious to get back where he had left his fishing pole and line under a shady tree on the bank of a merry chattering little brook, that made more fuss in the world than many a deeper stream that could turn a water mill or float a boat; but that's the way with some people, too, sometimes.

"Oh, never mind, I don't care!" he finally said as he scurried away, looking back a moment to see his mother, Nora and Mike standing on the lawn and smiling very broadly as he waved his hand to them. "What in the world are they laughing at?" he wondered.

It was certainly a lovely day for fishing, so he settled himself comfortably with his back against a tree, threw his hook and line in the water and waited and waited for a bite.

After a long time he thought he would pull up his hook and look at it. When he did so, he exclaimed, "Goodness! I forgot to put on a worm!" After laughing to himself and at himself for having what Nora called "the best forgetery of any boy in the country," he baited the hook, cast it out into the brook and settled himself for a long and patient wait, as all good anglers learn to do.

The day was certainly a perfect one for fishing, but that doesn't say for catching fish; for on a day like that, at a time and place like that, it would have been a very stupid fish indeed that wouldn't have wriggled himself into a nice cool spot among the roots under an overhanging bank and taken several times "forty winks" while thinking about the foolishness of people who forget to bait their hooks.

No wonder that Jimmyson learned back and closed his eyes while the tip of his pole slowly dropped into the water, as he listened to the catbird singing a gurgling little song to his mate as she sat on her eggs in their nest in the crotch of an alder bush, and old grandfather turtle crept slowly up the bank for a little bask in the sun, to limber up his stiff old bones a little.

"Well, well, here he comes again," said the turtle.

"Who?" asked Jimmyson.

"Oh, Old-Man-Who-Forgot-to-Remember. Here he is now," answered the turtle as Mr. Rabbit came timidly through the bushes, peering here and there and muttering. "My-my-my—what could I have done with it? I must have left it behind."

"Is it the same thing you left before?" asked the turtle in a very peculiar tone, as he winked at Jimmyson.

At this the rabbit jumped in the air and exclaimed, "My, how you startled me! That's it, thank you. I left it before the door of my house. Thank you, thank you very much." And he scurried away through the bushes so fast that it hardly seemed he had been there.

"What was it he lost?" asked Jimmyson.

"Blest if I know, and I don't think he does himself," chuckled the turtle. "You see, it's this way: He's a March hare, and he's hare-brained. He's so accustomed to forgetting things that he isn't happy unless he thinks he's lost something. Why, ten to one, by this time he's forgotten what he's running for."

"That must be very unfortunate," said Jimmyson.

"Sometimes yes, sometimes no," said the turtle. "For instance, the other day he thought he was hungry, so he rushed to the store, got some oatmeal, rushed back, put the pan on the stove and sat down and waited a long time for it to cook. Then he remembered he had forgotten to light the fire; so he lit it. Then he remembered he had forgotten salt, so he rushed toward the store to get some. When he was halfway there he got interested in a game of leapfrog, for-



got what he went for, and when he got home it was after dark. He was very tired, the fire was out; so he forgot he was hungry and went sound asleep."

"I don't see what good that did him," said Jimmyson.

"Why, you see," answered the turtle, "the next morning he found he had forgotten to put the oatmeal in the pan; so he was one dinner ahead."

"Oh, I see," said Jimmyson; "but he didn't have the dinner!"

"Not at that time," was the reply; "but as he had forgotten that he wanted it, why, he was one dinner ahead."

Jimmyson didn't quite agree with this, but he was too polite to say so, so he asked, "Do you know anything else?"

"Lots of things," was the answer; "only I have to be started before I can tell any."

"What makes the big river so low this summer?" asked Jimmyson.

"That's easy," was the reply. "You see, its mouth is so far from its head that its arms can't reach it to feed it."

"I didn't mean it for a riddle," said Jimmyson.

"Speaking of riddles," said the turtle, "can you guess this one?"

"What is it the rich man wants,

The poor man has,

The honest man steals,

The dumb man says,

The idle man does,

The barren ground grows,

Wild talk amounts to,

And a poor fool knows?"

"Please say that over again," said Jimmyson. And Mr. Turtle repeated it very slowly.

After puzzling for awhile, Jimmyson was obliged to say, "I give it up."

"The answer is 'Nothing,'" said the turtle, and there was a sound in his throat something like a gurgle, a giggle and a chuckle, all mixed up.

"That's good!" laughed Jimmyson, "I'll catch Nora on that. Hello, Who's this?"

"Hush!" whispered the turtle. "It's the rattle-brained rabbit again. He's



Peter's Disgrace.

learning a piece to speak at a picnic. Listen!"

The rabbit gravely stepped up on a rock, and, after practicing bowing awhile, recited in what he meant to be his very best company tones:

"The old man said to his son one time, In a sort of a kind of a way, I think I'll get a Thing-gum-bob, And try it on you some day."

"And the son replied, after careful thought,

'What's-his-name has 'em for sale; Or no, perhaps, it's the other man— My memory's beginning to fail.'

"Quite true," said his father. "I noticed one day,

Or perhaps 'twas another time, That the thing you thought you were going to say

With the thing you said wouldn't rhyme!"

"I remember it, too," the youth replied. 'Twas when I fell into the well.

No, 'twas the time the what-you-may-call-it

On my toe from the anvil fell."

"That's true," said his father. "You hopped to the house.

I rubbed on some—bother it all— That stuff, I've really forgotten its name, From the box on the shelf in the hall."

"That's so," said the son. "Then you hitched the horse

To the cart. No, the other rig, And went to the doctor. He told you how

To bind on that—thing-a-ma-jig."

"You're right," said his father. "This goes to show

How happy we both should be That while others can't think what's 't'other from which,

We each have a good memory."

As he finished and bowed gravely, Jimmyson felt a tug on his line and grabbed his pole. As he did so he caught a glimpse of Mr. Turtle slipping off the tip of it into the water; also of a little cot-tontail disappearing in the bushes.

"Goodness!" he exclaimed, as he pulled up the line and looked at the bare hook. "I wonder if I had a bite! I wonder if I've been asleep and dreamed all this!" And as he scratched his head to collect his thoughts his fingers touched his cap on the back of it among the curls.

"Ha, ha, ha," he laughed. "No wonder Mama and Nora and Mike laughed when I was rushing around looking for my cap!" And all the way home he couldn't help wondering if the turtle and the rabbit had been making fun of him or he had just had a funny dream.

**Peter's Disgrace.**

"Oh, shame upon you, Peter! What have you been about?"

The mother spoke in sorrow, The puppies raised a shout

Of "Peter, naughty Peter, Oh, won't you catch it now!"

For mother's jolly angry,— There's sure to be a row."

What could poor Peter answer? His face like ink appears,

While from his eyes slow dropping

Come blinding, scalding tears.

The pot of paint was standing

Right there, outside the door,

It really was too tempt-ing,—

But now he's feeling sore. His eyes are smarting

sadly, His conscience tells him true

That mischief ends in sorrow,—

No wonder he looks "blue,"

For stains are not so easy To wash off as he thought,

And long he'll bear the token Of what his sin has wrought.

COUSIN DOROTHY.

Dr. William Osler, of Johns Hopkins and Oxford, tells this story: An old darky quack, well-known in a certain section of the South, was passing the house of a planter whose wife was reported to be dangerously ill. Stopping at the gate, he called to one of the hands:

"I say, Rastus, how's the missus?"

"Well," replied Rastus, "the doctah done say this mawnin' dat she convalescent."

"Humph! Dat ain't nothin' chile," said the old quack, with an air of superior wisdom. "Why, I've done cured

convalescence in twenty-foah hours!"

**The Second Mrs. Jim.**

(Continued.)

III.

The next episode in the story of the Second Mrs. Jim is headed "Desperate Remedies," and it deals with the original methods she adopted to cure Jimmie of smoking, or, to use her own words, "To let him break himself of it as quick as he could." By the smell upon his clothes she knew he had begun with a very mild quality of tobacco, the scent of which he greatly hoped had never betrayed his secret. Mrs. Jim never "let on" that to her it was no secret at all, but just allowed the lad, who seemed already to have a very real regard for her, to find her groaning and moaning with an imaginary ear-ache: "There I set, and moaned." Just only one thing would relieve me. Sweet 'ile? No, I wanted t'bacco smoke blown into my ear. Jim couldn't stand the stuff. The hired man was out. If I only had a pipe! But, no, I can't blow into my own ear, can I? Pretty soon I see Jimmie trying to screw up courage to say something. At last it came, 'I got a pipe, but I ain't got no smokin'.' 'Well,' says I, 'you skip out into the woodshed and you'll find a bag of t'bacco hanging on the rafters. I brought it along for skeep dip.' In a minute the boy comes back with the bag and a corn-cob pipe he had once surreptitiously brought from the hired man. There wasn't nothing mild about that stuff out there in the woodshed. It smelled like burnin' rubber, and old boots, and shoein' horses. I wrapped my head up tight, except just one ear, so's I couldn't smell the awful stuff, an' Jimmie started out bravely, but I wasn't relieved until I see the boy was gettin' all he could stand and just a little more. Then I came round pretty quick, and flew round and got supper, an' called 'em in; but Jimmie didn't come. 'What was the matter?' you say. Oh, I knew what was the matter, and started out to find him. I found him in the barn, doubled up on a pile of sacks. He didn't have strength enough to tell me to go away; but I knew he wanted to. . . . It wasn't dark yet, and I knew by his looks that earache wasn't the only thing that t'bacco had cured. I never saw such a looking boy, with those copper-colored freckles on a kind o' olive-green background. Jimmie never suspected me, but I heard him telling the new hired man the other day that he guessed that if his pa could get along all his life without smoking, he could too, and he guessed his pa was just as good as anybody's pa, smoke or no smoke. And then I knew he'd broke himself.

Frankie was cured of that and other habits by methods almost as heroic, but as Mrs. Jim remarked, "Desperit diseases need desperit remedies," and her treatment was probably far more effectual than that proposed by Jim, who had said, "I'll thrash it out of 'em. Just let me ketch 'em using the stuff. I'll fix 'em, etc., etc." Mrs. Jim's last words of wisdom, regarding her more diplomatic system of training, are worth quoting: "Habits is like horses. Them that others breaks for you ain't half as well broke as them you break for yourself."

Under the heading of "A Cure for Strikes," we get some racy bits as wise boy-management. As a preparation for a promised good time out camping, the lads learn many a housekeeping art—how to cook, how to bake, how to wash dishes, and even to scrub. "The cook's always boss on a campin' trip," says wise Mrs. Jim. "When a boy's off the track," she explained, "it's mostly 'cause his folks didn't care enough, or hadn't gumption enough to keep him lookin' forward to somethin' all the time. It's easy enough to drive a hungry cow behind a wagon-load of feed if she don't get a chance to catch up, only you've got to look out that somebody else

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don't give her the feed you ought to give her yourself."

Perhaps the crowning reward came to the stepmother when, on his 15th birthday, Jimmie finds the old store-room cleared out, and fitted up boy-fashion with books, pictures and tools, and "the rifle he had been teasin' for so long," a liberty hall for himself and friends. She hears the door open at the head of the stairs and Jimmie's voice saying: "Just look round, fellers; I'll be back in a minute," and then—"The boy comes in with his eyes shinin', and all he can say is 'Oh, mother,' but he flings his arms around my neck, an' pulls my head down and kisses me right on the lips, an' I felt more'n paid for all the trouble I'd taken." And surely we may concede that she had certainly earned it.

But we have not quite done yet with the sayings and doings of the second Mrs. Jim. We must still devote to her another column of our Home Magazine. H. A. B.

(To be continued.)

## Domestic Economy.

### CHILDREN'S TEETH.

It is a very common impression that the milk teeth of children need no dentist's attention, and that the sooner they decay and fall out, the sooner there will be room left for the permanent teeth to grow in; but this is a popular error, for the second or permanent teeth owe their character in some measure to the condition of the first set, and any defect, either in shape, position or texture on the part of a milk tooth, is apt to be reflected in the corresponding second tooth. Therefore, when a milk tooth becomes decayed, it should be cleansed and stopped by a dentist, and if the teeth are protruding or malformed, the use of a frame or of other means, by which the first teeth can be trained in the way they should go, will lead to the eventual possession of more even and regular and sounder teeth.

Even in respectable and otherwise particular families it is not uncommon to find the children are excused the ordeal of brushing the teeth until the second set have arrived. This neglect is most pernicious and quite unpardonable. As soon as a child can wash his own hands and face, he should be taught to brush his teeth, and before that time they should be regularly cleansed for him. Every child should be taught as soon as possible to rinse out the mouth after every meal, for there is no more certain cause for decay than the decomposition of particles of food lodged between the teeth, which even brushing without the act of rinsing the mouth will not always remove.

The principal cause of decay has already been indicated—namely, the decomposition of food particles between the teeth, which gives rise to the formation of acids which penetrate and corrode the dental enamel.

Next comes the question of foods. All hot foods are injurious to the teeth, for they are apt to crack the enamel, just as hot water will crack a glass, and, once cracked, the enamel is sure to decay. Children's food should be given as nearly as possible at blood heat or slightly less; never above that temperature. Cold fluids, taken with or immediately after hot foods, are also apt to crack the dental enamel; indeed, any sudden change of temperature is bad for the teeth.

Sweet foods and rich dishes lead to decay much more quickly than plain and frugal fare, and animal foods are generally more hurtful in this respect than vegetable aliments. Medicines also are sometimes to blame for premature loss of teeth. Those containing iron, mercury, or any acid, should be given in the shape of pills, or within capsules, when possible, or if they are necessarily fluid, they should be taken through a glass medicine tube.

## THE LEAVENWORTH CASE

By A. K. Green.

### CHAPTER XXVIII.—Continued.

I concluded not to waste my resources, so kneeling down in the darkness, I groped for the board, and found it to be loose. Wrenching at it with all my strength I tore it free; then lighting my match looked into the hole thus made. Something, I could not tell what, stone or box, met my eye, but while I reached for it the match flew out of my hand. I dived down deep into the hole and in another moment had the object of my curiosity in my hands. It was the box. Satisfied at this result of my efforts, I turned to depart, my one wish now being to arrive home before Mrs. Belden.

Regaining the highway, I started at a brisk pace. For some little distance I kept it up. But suddenly at a turn in the road I came unexpectedly upon Mrs. Belden standing in the middle of the path, looking back. Somewhat disconcerted, I hastened swiftly by her, expecting of course that she would make some effort to stop me. But she let me pass without a word. Indeed, I doubt now if she even saw or heard me. Astonished at this treatment, I looked back, when I saw what it was that enchaind her to the spot. The barn behind us was on fire!

Instantly I realized that it was the work of my hands; I had dropped a half-extinguished match, and it had fallen upon some inflammable substance.

I paused, in my turn, and stood staring. Higher and higher the red flames mounted, brighter and brighter glowed the clouds above, the stream beneath; and in the fascination of watching it all, I forgot Mrs. Belden. But a short, agitated gasp from her soon recalled her presence to mind, and drawing nearer, I heard her exclaim, like a person speaking in a dream, "Well, I didn't mean to do it"; then lower, and with a certain satisfaction, "but it's all right anyway; the thing is lost now for good, and Mary will be satisfied without anyone being to blame."

I did not linger to hear more. The first thing I did upon my arrival at the house was to assure myself that no evil effects had followed my inconsiderate desertion of it to the mercies of the tramp she had taken in; the next to retire to my room and take a peep at the box. I found it to be a neat, tin coffer, fastened with a lock. Satisfied from its weight that it contained nothing heavier than the papers of which Mrs. Belden had spoken, I hid it under the bed and returned to the sitting-room. I had barely taken a seat and lifted a book when Mrs. Belden came in.

"Well!" cried she, taking off her bonnet and revealing a face much flushed with exercise but greatly relieved in expression; "this is a night! It lightens, and there is a fire somewhere down the street, and altogether it is perfectly dreadful out. I hope you have not been lonesome," continued she, with a keen look at my face. "I had an errand to attend to, but didn't expect to stay long."

I returned some nonchalant reply, and she hastened from the room to fasten up the house.

I waited, but she did not come back; fearful perhaps of betraying herself, she had retired to her own apartment, leaving me to take care of myself as best I might. As soon, then, as the storm was over, I myself went to bed, and after several ineffectual efforts, succeeded in getting asleep.

### CHAPTER XXIX.

#### The Missing Witness

"Mr. Raymond!"

The voice was low and searching, it reached me in my dreams. Morning had begun to break, and by its light I saw standing in the open door leading into the dining-room, the forlorn figure of the tramp who had been admitted into the house the night before. Angry and perplexed, I was about to bid her begone, when to my great surprise, she pulled out a red handkerchief from her pocket, and I recognized Q.

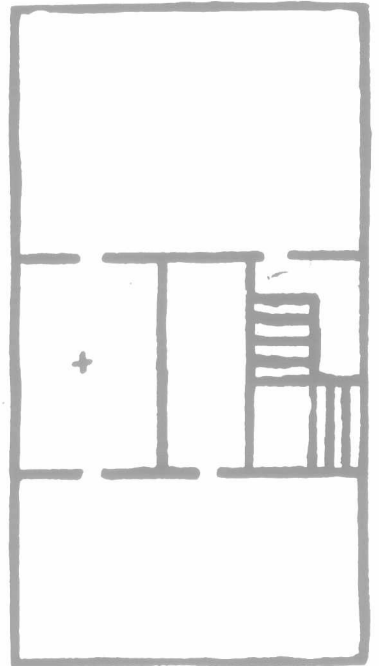
"Read that," said he, hastily advancing and putting a slip of paper into my hand. And without another word or

look left the room, closing the door behind him.

I took it to the window, and, by the rapidly increasing light, succeeded in making out the rudely scrawled lines as follows:

"She is here; I have seen her; in the room marked with a cross in the accompanying plan. Wait till eight o'clock, then go up. I will contrive some means of getting Mrs. B— out of the house."

Sketched below this was the following plan of the upper floor.



Hannah, then, was in the small back room over the dining-room. Greatly relieved, and yet at the same time much moved at the near prospect of being brought face to face with the one who, there was every reason to believe, was acquainted with the dreadful secret involved in the Leavenworth murder, I lay down once more and endeavored to catch another hour's rest. But I soon gave up the effort in despair, and contented myself with listening to the sounds of awakening life which now began to make themselves heard.

As Q had closed the door after him, I could only faintly hear Mrs. Belden when she came downstairs. But the short, surprised exclamation which she uttered upon reaching the kitchen and finding the tramp gone and the back door wide open, came plainly enough to my ears. As she came into the room adjoining mine, I could hear her murmur to herself:

"Poor thing! she has lived so long in the fields she finds it unnatural to be cooped up in the house all night."

Slowly the minutes passed, eight o'clock struck, when just as the last vibration ceased, there came a loud knock at the back door, and a little boy burst into the kitchen crying at the top of his voice: "Oh, Mrs. Belden, papa's got a fit, do come!"

I hastened toward the kitchen, meeting Mrs. Belden's anxious face in the doorway.

"A poor wood-shopper down the street has fallen in a fit," she said, "and they have sent for me. Will you please watch over the house while I am gone?"

And without waiting for my reply, she caught up a shawl, and followed the urchin out into the street.

To leave the kitchen, go up those stairs and confront that girl, seemed for the moment beyond my power. And yet I was conscious of eagerly longing to know the worst, and of utter thankfulness for Eleanore's sake that all had come around so easily. Once on the stair, I found myself relieved from the especial dread which had overwhelmed me, and possessed instead of a sort of combative curiosity that led me to throw open the door at the top, with a certain fierceness new to my nature.

(To be continued.)

An old-fashioned hop poultice, used for all sorts of pain, is made by a Canadian doctor as follows: Put a handful of dried hops into one cup of water, and let it boil until the water is reduced to half a cup, then stir in enough Indian meal to thicken. Apply very hot.

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



I have just been thinking that, now that the spring house-cleaning is over, some of you will have come into possession of valuable "ideas" during the operation. You will have arranged your rooms to your liking; you will have learned a few things by mistakes which you have made; or you will have formulated plans to be carried out during the fall season of overhauling. So many people now, you know, do their papering, etc., when the dust of summer is a thing of the past, and there is need of installing new and cheery things to counteract the effect of the dreary winter. So, I have thought that a new subject for discussion, bearing on the question of house-furnishings, might be interesting, instructive, and opportune. Our subject, then, will be, "My Ideal Dining-room and Sitting-room." Tell the kind of paper, curtains, carpet and furniture you would use, adding, if possible, the probable cost of each. Pay particular attention to the "color scheme," and give a few hints as to arrangement. Last of all, make your letters as short as you can, keeping them, of course, interesting and easy in style; I am well aware that a mere catalogue of details can be neither. Now, I know every woman loves to plan ideal apartments, so will hope for a number of letters on this subject that will be interesting and helpful to us all. Address, DAME DURDEN, "Farmer's Advocate" office, London, Ont.

**Notes from Katharine Blinkbonny.**

In buying table linen see that the material is good. It lasts longer and looks better than a thin, filmy one. You may make soft cloths look better and keep clean longer by starching slightly; iron carefully without folding; afterward fold and iron after each fold; dry thoroughly before placing in the drawer. When taking the cloth off the table after meals do not wrinkle and roll and fold into a hard bundle; then take it out and shake it, put it across your arm somehow, come in the house and fold it every way but the way it was done at the time of ironing. . . . Rather a better way: Use a soft cloth to brush the crumbs off onto a plate, and fold the cloth carefully and quickly, the same way every time. If it is to be shaken, lift it carefully by the edges and hold high to do so, then fold without wrinkling. It may be kept clean a week longer by placing pieces of table linen, about thirty by twenty-four inches, at the end where the serving is done, and also at places where the tablecloth is likely to be soiled. When these end pieces are soiled, remove and use others, or do without any. Much labor may be saved by leaving the dining table set from meal to meal, if it is not needed for other purposes. When there are children a nice piece of oilcloth may be placed under each plate, and a large oilcloth bib used.

The flavor of tea is improved by washing the teapot after every using. After steeping the tea lift the cover of the teakettle and place the teapot on top of kettle, over the steam from the boiling water, and leave there to draw not more than seven minutes; serve immediately. This is a secret of a lady famed for making delicious tea.

Have a different cloth for different things—dishes, kettles and pans, milk pans or cans, milk pails, churn, and lamps—also have dish towels, dusters, and a cloth to remove baking to and from the oven. Some may think this is all very foolish and unnecessary, and that it takes too much time, but those who do it certainly would not discontinue the practice.

A useful clothes-pin bag of any shape or pattern one wishes may be tied on one like an apron when hanging but

clothes. For those whose fingers nearly freeze at the clothes-line in cold weather a pair of mittens is useful. These are made from old soft woollen underwear, and should have thumb and first finger separate, like a harvest glove.

Coat hangers galore may be made by sawing wooden barrel hoops the required length; cover with lining or cotton, and hang with a strong string.

When the screw on a fruit-jar is too tight to remove, pour over it some warm water, and see the result.

I am afraid I am taking too much space in the Nook, and some will be weary and yawning, so will finish by giving a recipe for

**DELICIOUS SOUR-CREAM CAKES.**

Into a mixing pan put one and a half cupfuls thick sour cream, one-half cupful white sugar, one unbeaten egg, one scant teaspoonful salt, and one of soda. Mix soft with flour, and roll about half an inch thick. Bake in hot oven.

KATHARINE BLINKBONNY.

Hillsburg, Ont.

**System.**

Dear Dame Durden,—Housekeeping, hon-making, is one of my dearest delights, and after years I enjoy it more and more. I always try to do everything so orderly and well that I have as little waste as possible. In this way I get time to read and play, when, in the old days, before I put thought into my work, I was a slave to it, driven instead of driving.

I love home work, and I love to teach girls. The trouble with so many of our girls is that they have never been taught, and they either want to do things well, but don't know how, or don't care, because housework is "so pokey," etc. If we can teach them to "mix work with brains," and to take pride in it, we will develop a class of wonderfully happy, successful women, who will love home better than a clerk's place behind a counter.

We Western women have great issues in our hands. Our brave men may raise wheat and stock, but never at their best, only as they go forth from ideal homes. Our lives are so rich in opportunity; in the chance to control environment, if we can but realize it. You see, I am an enthusiast on these lines—indeed I am. I like your department; it is good. I've known a few others, so I imagine I am something of a judge. Of course you need the co-operation and sympathy of the women you are trying to reach—for your work is something above and beyond the drawing of your pay. The pay is important, but to help others we always need to be helped. None of us stand alone.

One of my greatest helps in housekeeping is to be systematic. I've found that a place for everything, and a time for each task, is the rule that helps me more than any other to drive my work, rather than to be driven by it.

In the winter, after the holidays are over, I begin on my bedding. Every quilt is put in repair, new comforters tied, and all the piecing done. By doing some every year I keep my supply up. After the heavy bedding come the sheets, pillow covers, and table linen. Sheets are turned, common pillow slips made from the ends of old ones, and the new ones that will be needed for the year are all made and laid away. I've often found a willing "masculine" hand to run the sewing machine on a stormy winter day, and that is a great help.

After the bedding come the muslin underwear, summer skirts, shirts, etc.; then in March the wash dresses are made for the summer. A seamstress for a while at this time is often a great saving; by having her one gets all these things done and ready before the heavy spring work comes, when the days are longer, and there are more men to cook

**WHAT IS BETTER THAN**

good bread and plenty of it? The best and most nutritious bread is that made from

**FIVE ROSES FLOUR**

which is made only from the highest-grade Manitoba Hard Wheat, and is not artificially bleached.

ASK YOUR GROCER FOR IT!

Lake of The Woods Milling Company, Limited

21 days' offer.

Order now.



The Watch is much larger than this Cut.

Stem Wind.

Stem Set.

**Our \$6 Genuine Gold-Plated Watch for \$2.50**

This offer good for 21 days only. Your money back if not suited.

Men's or Boys' sizes, plain or engraved. This handsome genuine gold-plated watch, thin model, open-faced, beautifully engraved on back like cut, or perfectly plain for initials, we will sell at \$2.50, which is less than half price, for 21 days only. Every watch filled with guaranteed movement, stem-wind and stem-set, double sunk dial, small second hand, accurate to the second and guaranteed to keep perfect time. Imagine, you get a regular \$6.00 watch for \$2.50.

Manufacturer's dated guarantee with every watch we sell.

This watch makes a magnificent gift for young men. It both wears well, is a good time-keeper, and looks like a \$5.00 watch.

We do this to place our watch department before the people.

With every order for the above watch at \$2.50, not \$6.00, we will give free one of our handsome gold-laid watch chains, with cross-bar and snap. The above offer is positively the greatest bargain on earth. Write to-day.

This special offer will positively not appear again.

Send registered letter, express order or stamps. Don't delay. Order now.

THE SOVEREIGN SPECIALTY CO., P. O. Box 459, London, Ont.

**Care and Precision**

This Trade-mark is on every ball of the best twine made.



Are the characteristics of

**Plymouth Binder Twine**

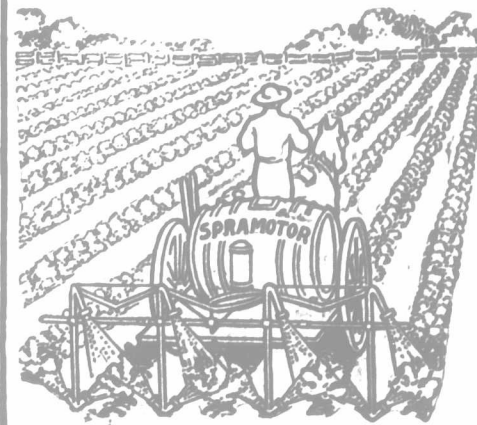
manufacture. Each ball is just as good as it can be made, it contains no inferior fibre or weighting substances, nor does the ball collapse when partly used, as frequently happens with cheap twine, wasting time and twine.

The use of PLYMOUTH saves money and gives pleasure to the farmer, saves money by its great length, gives pleasure by its freedom from tangles, tow and twist and other imperfections that mark the common kind of twine. PLYMOUTH can be depended on at all times, no matter how hard the work or how old the binder.

SALES AGENTS IN MOST EVERY TOWN.

Wholesale Distributors: PLYMOUTH BINDER TWINE AGENCY, Toronto, Ont.

**Did the Blight Spoil Your Potatoes Last Year?**



**The Spramotor**

will for \$1.00 per acre, protect the coming season's crop from BLIGHT, BUGS and ROT, and increase the yield over one-half.

The machine illustrated will spray 20 acres a day, 4 rows at a time, above and below, by driving the horse between the rows. All the work is done by the horse.

The machine can be worked by hand for stationary work, such as large trees, whitewashing, etc., kill the wild mustard plant, and greatly increase the yield of grain. Write for Booklet "B;" it's free.

SPRAMOTOR CO.  
68-79 King St. LONDON, Can.  
107-108 Erie St. BUFFALO, N.Y.

Agents Wanted

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

for, and the garden and poultry need attention.

In June and July I pack the extra eggs and butter for winter. Prices are lowest then, and the quality of butter best, and the fruit season not being on then there is more time. I've packed, sometimes, as many as one hundred dozen eggs, even buying many from my neighbors, and these eggs not only help us over the winter, but often the neighbors come and buy them back at a profit.

The care of a home and its business management is a beautiful work in life, and the more skillfully and sensibly we see to it the more lovely it becomes. By loving our work, and trying to see how nicely and profitably we can regulate our affairs, we can gain a greater success; and we all love success. We spell it with a big S every time. We can only control a home well, with all its complex interests, as we learn self control. One of the first steps in self control is to form regular habits of work, so that we are not fretted by the work dragging. It is better to avoid the drag and consequent fretting, substituting something better.

Assa. C. D.

#### Recipes from Juanita.

**Sponge Cake.**—Break two eggs into a measuring cup; fill up with sweet cream; add a pinch of salt; make into a batter with one cup white sugar and one and a half cups of flour, into which has been sifted two teaspoons baking powder. Flavor with lemon extract.

**Fig Pudding.**—Half a pound suet; one pound chopped figs; half a pound bread crumbs; half a pound of sugar; one cup of flour; half a teaspoonful baking powder; one nutmeg; one egg; milk, enough to moisten.

**Flake Pastry.**—Half cup of lard; half a cup of butter; half a tablespoonful of lemon juice; one cup of flour, and water enough to mix. Roll from you.

#### Re Butter-worker.

Sometimes when the butter is very firm the legs of the butter-worker will spread so that the cross pieces below will drop out. To prevent this I have four small hooks and eyes, an eye screwed into each leg, and near center of front cross piece between legs. The hooks are screwed into cross pieces near the ends, and by hooking these the legs can move very little. I have tried the same plan on the slats of a bed when they begin to drop out; a hook in each end of slat, an eye in each side of bed holds them secure.

DESIRE-TO-HELP.

#### For Dandelion Time.

**Dandelion Cordial.**—Take 1 gal. dandelion flowers and 1 gal. water. Let steep three days, then strain. Add 3 lbs. sugar, 3 sliced lemons, and 3 sliced oranges, and boil. Take off, and when lukewarm add half a yeast cake. Let ferment, then bottle and keep in a cool place. It should be ready in a month. For using, put one tablespoonful of the cordial to each glass of cold water.

#### For Every Day.

How to live comfortably with one's neighbors—that is the problem; to avoid the knocks and frictions which draw lines in men's faces and too often contract their souls. It is paradoxical, but true, that the larger the soul becomes, the more room it creates for itself—a margin of quietness in which it remains untouched by petty jealousies and hurts. By the practice of charity and unselfishness a life builds for itself "more stately mansions" wherein it may dwell in peace.

A song in one's heart, a smile upon one's lips, a cheery, wholesome message of goodwill on one's tongue, are wonderful helps to all kinds of people. There are so many burdens of sorrow and care and poverty and sin; so many doubting, discouraged, tempted hearts. To comfort and to make strong, to lift up and to bless—are those not missions worth while? Try it, friend, and prove how truly your own heart and mind are cheered and made brave by your very endeavor to carry sunshine into dark places.

A recent issue of the Cornhill Magazine contained a poem by Mr. Frank Sidwick, reminiscent of Thackeray's "Cane-bot-

tomed Chair," and with the same rare literary flavor. It is entitled, "When My Ship Comes In," and is descriptive of what kind of a house the poet would choose. Here is an extract:

One thing I'll have that's full of shelves  
For nothing but books; and the books  
themselves

Shall be of the sort that a man will  
choose

If he loves that good old word PERUSE;  
The kind of book that you open by  
chance

To browse on the page with a leisurely  
glance,

Certain of finding something new,  
Although you have read it ten times  
through.

I don't mean books like Punch in series,  
Or all the volumes of Notes and Queries;  
But those wherein, without effort, your  
eyes

Fall where the favorite passage lies,  
Knowing the page and exact position—  
It's never the same in another edition!

The Vicar of Wakefield, and Evelina,  
Ella, The Egoist, Emma, Catriona,  
Fuller and Mallory, Westward Ho!

And the wonderful story of Daniel Defoe,  
And Tzaak Walton, and Gilbert White,  
And plays and poetry left and right!

No glass doors, and no "fumed oak";  
Plain deal, and fumed by myself with  
smoke;

Stained, if at all, to a pleasant brown,  
With ledges and places for putting books  
down.

And there I'll sit by a blazing log  
With a sweet old briar and glass of grog,  
And read my Pickwick, Penderennis, Huck  
Finn.

Cosily there—when my ship comes in.

#### WHAT I CAN DO WITHOUT.

'Twas a lonely little homestead, the home  
of pioneers,  
On the wide and open prairie, where  
passed my early years;

Sometimes abundant harvests with plenty  
filled the bin,  
And sometimes on the threshold Hard  
Times stood peering in;

Then serious discussions of ways and  
means occurred,  
To be finally concluded by my father's  
cheery word,

"Whatever we may do without, whatever  
we may get,  
There's one thing that is certain, we can  
do without a debt."

'Twas a bit of homely wisdom, with a  
touch of honest pride,  
Through good or evil fortune it was  
never set aside;

Many summers, many winters, with their  
shadows and their sun,  
With their happy days and sad days, have  
vanished one by one;

Time and Change, the unrelenting, swept  
the little home away.  
The open, lonesome prairie is a fruitful  
field to-day,

But the voices of the homestead, I can  
hear their echoes yet,  
And what may come or not come, I can  
do without a debt.

#### Humorous.

"There was a certain colonel who in  
the middle of a campaign was seized  
with a sudden ardor about hygiene. He  
ordered that all his men change their  
shirts at once.

"This order was duly carried out except  
in the case of one company where  
the privates' wardrobes had been pitifully  
depleted. The captain of this company  
was informed that none of his men could  
change their shirts, since they had only  
one apiece.

"The colonel hesitated a moment, then  
said, firmly: 'Orders must be obeyed.  
Let the men change shirts with each  
other.'"

Teacher—"Your spelling is frightful!  
Why don't you look in the dictionary  
when you write your essays?" Pupil—  
"I do; but I can never find the word  
I'm looking for."

Pour chlorides down pipes, or, perhaps  
better still, caustic soda, which  
cuts the accumulated grease.

After cleaning, get rid of heavy hangings,  
and see that white curtains are  
spick and span.

#### QUESTIONS AND ANSWERS.

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

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

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

4th.—When a reply by mail is required to  
urgent veterinary or legal enquiries, \$1 must  
be enclosed.

#### Miscellaneous.

##### PORTABLE FENCE—BEARDLESS BARLEY.

1. I would like a cut of a good  
portable fence. The river runs across my  
farm and floods a good part of it every  
spring, taking some of the fences away.

2. I would like to know if any farmer  
has had success with "Success Beard-  
less barley, also with "White Hulless"  
barley. If so, give mode of cultivation.

3. At what age should caustic potash  
be used on calves? J. H. T.

Ans.—1. Write Canadian Portable Fence  
Co., Corner Jarvis & Esplanade Sts.,  
Toronto, for their catalogue or circular.

2. Can any of our readers answer this?

3. At one to two weeks old.

##### GETTING RID OF LEASE.

1. Last fall I leased a farm for a  
term of six years. Upon working on the  
land this spring, I find it far from what  
it was represented to me to be, and  
different improvements the owner agreed  
to make are undone. Can he compel me  
to remain on the place and work it in  
the face of the fact that I would be  
losing money every year?

2. Providing I give landlord six or  
eight months' notice and leave the place,  
having done all the lease requires of me,  
can he collect any damages from me, or  
make me pay more than the one year's  
rent? INQUIRER.

Ans.—Judging from what you state  
alone, we do not see that it could be  
safely said that you are entitled to re-  
scind the contract, and, accordingly, you  
are not in a position to give, effectively,  
the suggested notice of quitting. It is  
possible, however, that your case might  
appear very different upon a full state-  
ment of the facts, and we would sug-  
gest that you see a solicitor personally  
with a view to his finding some way out  
for you.

#### GROSSING.

At an auction sale on May 11th of  
49 head of imported Guernsey cattle,  
property of E. T. Price, Broad Axe, Pa.,  
and average price of \$302 was realized,  
one cow selling for \$1,125, another for  
\$1,025, and 10 others at \$400 to \$860  
each.

#### A BREEDERS' DIRECTORY.

A directory of breeders of Shorthorn  
cattle in the United States, indexed  
alphabetically and by States, has been  
issued by the American Shorthorn Breed-  
ers' Association, of which the Secretary  
is Mr. John W. Groves, 17 Exchange  
Avenue, Chicago, Ill. It is a volume of  
150 pages, well printed and well bound.  
The list has been prepared by carefully  
revising the last 18 volumes of the herd-  
book, and should prove of considerable  
interest and value to breeders, especially  
when advertising sales or in need of such  
information as it contains. The price is  
\$1.50, prepaid.

#### ANOTHER TRAMP ABROAD.

Stockmen are hereby warned that an-  
other, or possibly the same, polished  
tramp that has periodically imposed up-  
on Ontario breeders and farmers in the  
last few years, and has been run in more  
than once for stealing, is on the road  
again, representing himself to be a breeder  
or the agent of some well-known breeder,  
getting free board and lodging, buying  
stock on promises to pay, and in some  
cases borrowing money, or trying to do  
so. He has recently been operating in  
the neighborhood of Barrie, claiming to  
be the agent of a noted firm of breeders  
wanting to buy a farm convenient to a  
railway station, and soliciting orders for  
stock, on which part payment in advance  
is in some cases required. Readers will  
do well to be on their guard in this faked  
calls on them, and report him to the offi-  
cers of the law in the district, in order  
that he may be taken care of. He is a  
nuisance that should receive short shrift.

#### SUMMER SCHOOL.

The Central Business College, Toronto,  
will conduct a special summer session  
during July and August. Those who  
may be interested are invited to write  
for particulars. See card in this issue.

The far-famed Summerhill Herd of  
Yorkshire hogs of Messrs. D. C. Flatt &  
Son, at Millgrove, Ontario, six miles  
out from the City of Hamilton, was re-  
cently inspected by a representative of  
the "Farmer's Advocate" and found in  
first-class form, the large, smooth, typi-  
cal breeding sires and sows and growing  
young things ranging the pasture plots,  
and the show animals, comfortably quar-  
tered, coming gradually up to the condi-  
tion that catches the eye of the expert  
judge, who quickly discerns the difference

between done and overdone. And this is  
one of the favorable features of the  
prudent management of the Summerhill  
herd, that the pigs are never overdone,  
but by ample exercise and judicious feed-  
ing, vigorous constitutions are built up—  
strong, straight, well-placed legs being  
the rule, and firm flesh of the best qual-  
ity, muscle rather than fat produced.  
The recent rise in values of commercial  
hogs, which promises to continue, has,  
of course, had its influence on the de-  
mand for young breeding stock, and or-  
ders are coming by nearly every mail  
from all over the Dominion and many of  
the States, where the lengthy, smooth-  
shouldered Yorkshires are gradually  
gaining ground from the fat-backs and  
lard balls that raise trios and quartettes  
of youngsters instead of dozens. The  
system of selling by correspondence has  
had a fair trial here, and has proved  
satisfactory to seller and buyer alike, as  
evidenced by numerous letters received  
expressing entire satisfaction with the  
stock sent out on mail orders. But  
visitors are always welcomed and well  
used at Summerhill, and will find what  
they want, however high their ideals.  
Parties requiring first-class show and  
breeding boars will find a grand lot to  
select from; in fact, we have never seen  
so good a lot together in one herd,  
lengthy, straight, smooth, typical hogs of  
the breed, standing true on the best of  
underpinning, and in fine condition to go  
on satisfactorily, while the stock of  
young sows and spring pigs are well up  
to standard in type and quality. All  
are bred straight from recent importa-  
tions and from the stock that has made  
such a splendid prizewinning record at  
leading Canadian and international ex-  
positions in recent years.

#### SUMMER SCHOOL during July and August in our school.

**Central Business College**

of TORONTO, affords a splendid opportunity  
for teachers and others to spend a portion of  
the holiday season in a most profitable manner.  
Write at once for particulars. Address W.  
H. Shaw, Principal, Yonge and Gerrard  
Streets, Toronto, Ont.

#### WANTED

Readers of this paper who have  
REAL ESTATE of any nature,  
large or small BUSINESS,  
PATENTS, MINERALS, and  
are anxious to sell at a fair price  
at once, send full particulars,  
with a truthful statement, to us.  
We have the man with cash.

Send for

**HENRY LEWIS MONTHLY**

The Buyer's Guide. FREE.  
Established 1894.

**HENRY LEWIS OPERATING CO.**  
Long-distance Real Estate and Business  
Brokers.  
610 Elliott Square, O. BUFFALO, N. Y.

**If You Want Cash**  
and are ambitious to make  
money easy, then talk with us  
by letter, enclosing stamp for  
full particulars.

**MOON'S CORRESPONDENCE SCHOOL**  
Karn Hall, Montreal, W. T. Moon, Pres.



**POULTRY AND EGGS**

Condensed advertisements will be inserted under this heading at two cents per word each insertion. Each initial counts for one word, and figures for two words. Names and addresses are counted. Cash must always accompany the order for any advertisement under this heading. Parties having good pure-bred poultry and eggs for sale will find plenty of customers by using our advertising columns. No advertisement inserted for less than 50 cents.

**BUFF ORPINGTON** eggs, \$1 per 15, \$4 per 100. E. Brown, Haysville, Ont., breeder and importer.

**BUFF ORPINGTONS**—Pure Willow Brook Farm strain. Bred true to type, to produce winter eggs. Eggs, \$2 per 15. W. O. Burgess, box 48, Queenston, Ont.

**BUFF ORPINGTON** eggs—Exhibition stock \$2 per 15; utility stock, \$1 per 15; extra heavy layers; nine chicks guaranteed. Hugh A. Scott, Caledonia, Ont.

**EGGS** for hatching from choice pen Black Minorcas. \$1.50 per setting. Also Fox Terrier Paps. F. Attwood, Yonkeok.

**FOR SALE**—My entire breeding stock, as I want room for young stock. Barred Rocks, Silver and White Wyandottes, Buff Orpingtons and Rosecomb Black Minorcas, \$1 each. F. W. Krouse, Guelph, Ont.

**LARGE** Snow-White Wyandottes, Baldwin strain, great winter layers, strongly-fertilized eggs, \$1.00 per 15. Incubator lots special. Chas. A. Goulding, Vinemount, Ont.

**PURE BRED** Barred Rocks—Eggs, \$1 setting; 50, \$2.50; per 100 \$4. Safe delivery guaranteed. Miss Emily Spilsbury, Colborne, Ont.

**RHODE ISLAND REDS**, rose comb, bred six years, from carefully selected, heavy winter layers; large brown eggs. Setting \$1.50. Jno. Luscombe, Merton, Ont.

**SNEELGROVE** Poultry Yard. Barred Rocks exclusively. Canada's Business Hens. Eggs for hatching \$1.00 per setting; 3 settings \$2.00. W. J. Campbell, Sneelgrove, Ont.

**WANTED**—Young man desiring to learn book-keeping as a business. Terms: Careful instruction, board and \$10 per month for faithful work and clean habits. Write, stating age and weight, to Morley Pettit, Villa Nova P. O., Norfolk Co., Ont.



Advertisements will be inserted under this heading, such as Farm Properties, Help and Situations Wanted, and miscellaneous advertisements.

**TERMS**—Three cents per word each insertion. Each initial counts for one word and figures for two words. Names and addresses are counted. Cash must always accompany the order. No advertisement inserted for less than 50 cents.

**FOR SALE**—200,000 acres, including both wild and improved farm lands, in the celebrated Moose Mountain District. Prices ranging from \$3 to \$15 per acre. D. C. McFee, Carlyle, Ass.

**GINSENG**—Canadian roots best. Write E. Beattie, Highgate.

**LAND** for sale—Improved or unimproved, in the famous Moose Mountain District. Six to fifteen dollars per acre; easy payments. Geo. Kellett, Carlyle, Ass.

**KANAGAN** B. C. 960 acres of choice land, only \$7,000. For particulars apply H. E. Wallis, Kelowna, B. C.

**NOTICE**  
Mr. Henry Dudding will hold at Riby Grove, Great Grimby, Lincolnshire, on **THURSDAY, JULY 6TH, NEXT** The week after the Royal Show in London, an **AUCTION SALE**. A grand lot of **SCOTCH-TOPPED SHORTHORN CATTLE** and Lincoln Long-wool Yearling Rams and Ewes, and many prizewinners. The choicest strains of blood will be represented in the animals included in the sale. Catalogues from the owner in due course, and JNO. THORNTON & CO., Princess St., London.

A certain individual was recently presented with an account which he had good reason to think had already been paid.

"Haven't I paid this account?" he asked of the boy who brought it to the door.

"I don't know, sir," was the reply.

"Does your master know?"

"No, sir."

"Indeed, how do you know that?"

"I heard him say so!"

"And, after that, he had the impudence to send you to see if I knew—"

"Well, you see, sir, it's like this: The boss don't know, I don't know, and you don't know. As the boss says, if you pays it again we shall all know!"

**CIDER MAKING**  
Can be made profitable if the right kind of machinery is used. **WE MAKE THE RIGHT KIND.**  
Send for catalogue.  
**BOOMER & BOSCHERT PRESS CO.,**  
368 West Water St., Syracuse, N. Y.

**QUESTIONS AND ANSWERS. Miscellaneous.**

**HOLSTEINS IN CANADA.**

Can you state in what year Holsteins were first introduced into Canada?

J. E. G.

Ans.—As near as we can learn, the first Holsteins were brought to Canada in 1882, when Mr. J. W. Lee, of Simcoe, Norfolk Co., Ont., imported two head from the herd of Mr. Wm. Westover, Bay City, Michigan. In January, 1883, Mr. M. Cook, of Aultsville, Stormont Co., imported six head from the herd of Mr. B. B. Lord, of Sinclairville, N. Y., from which, in the same year, Mr. H. Bollert, Cassel, Ont., brought the first Holsteins to Oxford County. In the same year, 1883, Mr. J. S. Hallman, of New Dundee, Waterloo Co., father of Mr. A. C. Hallman, now of Breslau, and Mr. C. Wagler, of the same county, imported five head from the herd of Mr. G. E. Brown, Aurora, Ill., three females, two of which came from Holland, and an imported bull, the other female and bull having been bred in the U. S. Another importation, or rather a selection of seven head, was made by the Waterloo County breeders from a large consignment that came direct from Holland in 1884, from which Mr. A. C. Hallman says he helped to make the selection, and from that day to the present he has been actively engaged in breeding Holsteins, his early impressions of the good qualities and merits of the breed having never left him.

**CHICKS FAILED TO HATCH.**

Being a subscriber to the "Farmer's Advocate," would like to ask a few questions regarding an incubator. Having invested in an incubator in March, have already had two hatches, each time putting in 100 eggs, out of which I would get about 50 living chickens; the rest, with the exception of a very few infertile eggs, all contained fully developed chickens. What would be the reason of them being unable to hatch? Would there be an error during the period of incubation, or just at the period of hatching?

G. F. H.

Ans.—It is difficult to be certain as to the cause, since there is no positive evidence what is wrong. In the book, "Profits in Poultry," P. H. Jacobs recites an incubator experience in which out of two lots of fifty eggs each, with practically the same proportion fertile in each case, he hatched thirty chicks from the first lot, while of the second batch every chick perished in the shell. Upon investigation he found that the fowls from which the eggs of the first lot had been procured were in full health and had plenty of exercise, a cockerel of about one year of age being mated with the two-year-old hens. The eggs of the second lot were from hens that were mated with a brother, and the flock had been bred in for years. Consequently, while there was life in the egg, there was not sufficient vitality in each egg to enable it to break out. We consider it likely, however, that your lack of success was due to an error in incubation. Failure to turn the eggs during the later stages up to the nineteenth day would account for the embryo not attaining a natural position, hence not being excluded. More likely, though, your chicks expired during the hatching period for want of attention. Chicks which pip below the air cell very often choke at once, if not turned up. Prompt turning up will save most of them. Then, when they begin to come out, keep an eye on them, and all that can turn around and break through both shell and membrane will get out best if let alone, but those which turn and do not break through every time they are liable to smother; all such need help by pulling off the top part of the shell to give them air and let them come out. This must never be done until the chick is struggling to get out, neither must the trays be pulled out. Open the door, reach in and work as quickly as possible. Many operators, says Campbell, make mistakes in removing chicks from the egg chamber. If the day is close and hot, the chicks will suffer very much after they become dry if too many are out at once. If they are all removed on a cold day, the heat will drop suddenly for what are to come out. My rule is to remove them as soon as dry, if they pant; but if it is cold, I only remove a few at a time, as they become too much crowded for comfort.

**HOW TO DESTROY HONEY-LOCUST HEDGE.**

I have a piece of honey-locust hedge, 160 rods long. It has been planted about eight years. Some of it is probably three inches in diameter. Is there a proper month to cut it, and will it die if cut then? Some people say that if I cut off close to the ground and bore a hole in each stump and insert a little saltpetre and then cork up tight the roots and kill it?

J. B.

Ans.—We have never had occasion to destroy honey-locust hedge, but have been informed by a subscriber that he had been successful in burning it out in the fall. Coal oil was poured about the base of the trunk in dry weather and fire kindled at the end of the hedge. We would, however, be inclined to try the following plan, a modification of which we have used successfully in uprooting hawthorns, rose briars and apple trees: Plow on each side as close to the hedge as possible, a couple deep furrows. Then wrap a logging chain around the shrub as high up as possible so as to give plenty of purchase. If the first pull does not fetch it, swing the team around to the other side. A spade and ax may be necessary in a few cases. If cut down, the stumps would be left to contend with. Saltpetre would not phizz on them.

**POULTRY MITES.**

What is good to kill poultry mites? My fowl are covered with them.

T. H. P.

Ans.—A poultryman writing in the "Farmer's Advocate," February 4th, 1904, said he had found the best remedy to be kerosene emulsion made and applied as follows: Dissolve one-half pound hard soap in a gallon of soft water, put on fire and bring to a boil. Remove the solution from fire, and stir into it while hot two gallons of kerosene. This makes a thick, creamy emulsion, which is made ready for use by diluting with ten times as much soft water (about 30 gallons), stirring briskly and well. This may be used with good effect by a spray pump, directing the spray with special care into all crevices, joints or other hiding places of the mites. The first spraying will kill within five minutes all the mites and eggs the spray touches, but as many mites will be left where it has not reached, the operation should be repeated as soon as the first is completed. Three sprayings should be done in rapid succession the first day and a constant watch kept, the spraying being repeated upon each subsequent appearance of the vermin. Dust baths of earth or ashes should be provided for the fowls, and insect powder may be dusted into the feathers, especially under the wings and about the heads. This last treatment would appear to be imperative in the case of your birds. Kerosene straight may be used to excellent advantage on roosts, etc., as recommended in Poultry Notes in this issue, and it is not expensive.

**BAD SEED.**

I ordered a bushel of oats for seed from a seed company through their agent, which was to be shipped to me not later than April 15th of this year. The oats did not reach me until May 6th. I had my ground all seeded when the oats arrived. Further, there is a lot of wild seeds in the oats, rendering them unfit for sowing. Have written the company about it, and offer to settle fair, but they claim full price, \$2.50.

1. Can they collect it?  
2. What is the Act which was before Parliament re the selling of seed, or is there any law governing it?

ONTARIO.

Ans.—1. We think that a suit for it might be successfully resisted.  
2. The bill in question has already been several times published in this paper, and may be found in the issue of March 16th. It has passed the House of Commons, but may be strangled in the Senate.

**WORM FENCES.**

Is a worm fence lawful for a line fence, and, if so, how many feet are allowed for worm?

Norfolk Co., Ont.

Ans.—No; that is to say it is not unless agreed upon by the parties.

**CHORES ON HOLIDAYS.**

Is a hired man supposed to help to do chores on Sundays and holidays, in the mornings of these days?

B.

Ontario.  
Ans.—Yes.

**VARIETIES OF HENS.**

How can the pure-bred Plymouth Rock hen be told? What are their points, and also the points of the Black Spanish and Brown Leghorn?

J. G.

Ans.—There are a good many different varieties of Plymouth Rocks, but, we presume, our querist refers to the most common one, viz., the Barred Plymouth Rock. Pending the completion of the new American Standard of Perfection, the following description from Poultry Craft will answer the purpose; a general description of the Rocks is first given: "Hardy; general-purpose; brown-egg breed; sitters; medium to large in size. Standard weights, cock, 9½ lbs.; hen, 7½ lbs. The typical Plymouth Rock is a compactly built, strong, but not coarse-boned fowl. . . . In all varieties the comb is single and serrated, in size medium to small; ear lobes red, tail of medium length and abundant; beak, shanks and toes, yellow; skin yellow. The ground color of plumage in the Barred Rocks varies from grayish white to pale ashen blue. In the best colored specimens, the parallel bars crossing each feather run from leaden blue in light-colored to blue-black in dark specimens. Clear yellow legs and beaks are common in the males, but not in females, which oftener have a dark shading on the upper beak, and greenish shading on front of leg."

**Black Spanish.**—Delicate as chicks, but fairly hardy after few months; large white-egg breed; non-sitters. General characteristics: Color of plumage, rich, glossy black; tail large, carried rather upright; eyes full, bright, red; beak rather long, stout and dark in color; comb single, large, in male perfectly straight and upright, in female drooping to one side; legs dark blue in color; peculiar characteristic of the white-faced, or most popular kind, the abnormal development of the skin of the face, which should be smooth and pure white in color. Weight, cock, 8 lbs.; hen, 6½ lbs.

**Brown Leghorns.**—Hardy; white-egg breed; non-sitters; small to small-medium in size; white or creamy ear lobes; smooth, yellow legs; long and full tails; color of plumage reddish brown shading to golden brown with black markings; eyes, full, bright, red; comb, single or rose, bright red in color. Leghorns are greatly valued as egg-producers.

**SEEDING WITH BUCKWHEAT.**

I have ten acres of land I wish to seed down, but as it is a little low, it was too wet to seed with oats early in the season. Can I seed successfully with buckwheat? If so, what variety of buckwheat? How much should be sown to the acre, and when should it be sown? Would clover, or a mixture of timothy and clover be best?

L. O. L.

Ans.—Buckwheat is a poor crop to seed down with, as it shades the ground too much, and the late date at which it is sown is also very much against the chance of a good catch of clover or grass. With a favorable season, however, and on a rich, moist soil, you might be successful, though with seed at present prices we would not care to risk enough to sow ten acres. If you sow any at all, try a mixture of 5 lbs. red clover and 4 lbs. alsike per acre, and sow as soon as the land can be gotten into good condition.

**INFERIOR PURE-BREDS OR GOOD CROSS-BREDS?**

1. I have a pair of registered heavy Clydesdale mares. Can breed to an inferior Clydesdale or a No. 1 Shire stallion, both registered. Which would you advise me to breed them to?

2. Could the offspring of them and the Shire be registered?

O. T. B.

Ans.—1. Breed to the Shire, and you will likely get first-class draft colts, better than the produce of a poor Clydesdale stallion. Of course, there would be a slight chance of the Clyde stallion getting something better than himself, something which being pure-breds would be at a premium for breeding purposes, but the chances are decidedly against it. There are too many scrub pure-breds already, and when one cannot breed to top-notchers, it is better to produce good cross-bred geldings or mares for the market.

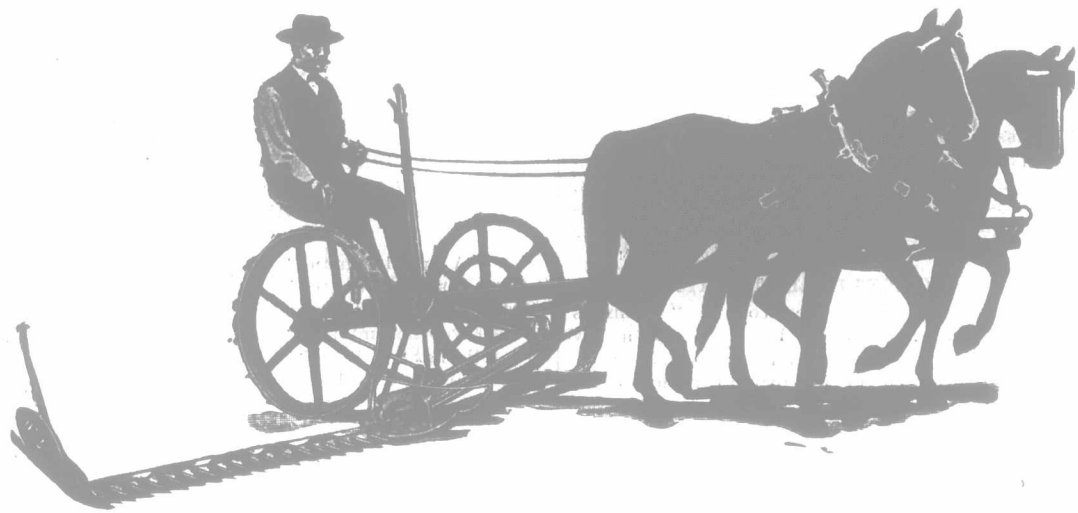
2. Shires and Clydesdales are two distinct breeds, and a cross of the two is, therefore, ineligible to registration in the studbook of either breed.

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

# Why Massey-Harris Mowers Are the Most Profitable

They will cut all kinds of hay quickly and thoroughly. They are strong and substantial, and there is no lost time for repairs, which often is disastrous to the entire crop. The main frame is light and very staunch, and the draft wheels are high and broad-faced, giving Massey-Harris Mowers a very light draft. The finger-bars are of best quality cold-rolled steel. The knife is held in position for clean cutting by broad-faced clips and works against hardened steel plates, which provide great wearing surface.

Massey-Harris soft-centre, edge-hardened knife sections, which give a very tough centre with a hardened knife-edged cutting surface. Doubletrees attached under the pole to draft lever in direct connection to draft rod. This great point increases the mower's power tremendously and overcomes all tendency for wheels to lift in heavy work.



## MASSEY-HARRIS CO., LIMITED

### GOSSIP.

Messrs. Wm. Grainger & Son, London, Ont., in ordering a change of advertisement of their Shorthorns, state: "Our recent sales of bulls are: Royal Token to Donald N. McKenzie, Laurier P. O., Ont.; Good Luck to Robt. J. Pollock, Ripley, Ont., and the grand young bull, the Lad for Me, to W. G. Hawkins, Spencerport, New York. We would just say this is the best young bull we ever shipped. When Mr. Hawkins saw him he wouldn't leave him, although he could get his choice from other breeders for considerably less money. We have a full brother, a few months old, which we consider will be equally as good a bull."

Mr. W. W. Ballantyne, Stratford, Ont., writes: "Our very recent sales of Ayrshires include the yearling bull, Scottie, to H. & J. McKee, Norwich. He has for dam the imported cow, Daisy 1st of Auchenbraim, one of the best cows ever brought to Canada, either as a show cow or as a milker, she having a record of 12,773 lbs. milk in less than ten months in her thirteenth year. While speaking of her, perhaps, it will be not amiss to mention that she, a few days ago, presented us with a beautiful heifer calf, sired by Sensation of Glenora, the fine son of Minnie of Lessnessock (imp.), and Douglasdale (imp.), of the Ogilvie herd, both being sweepstakes winners at all principal Canadian fairs. With two such dairy cows at his back as Daisy and Minnie, the youngster commences about right. John Ferguson, Camlachie, paid us a visit and took the seven-months-old calf of Daisy's daughter. He was sired by Sensation, and his dam, by Royal Peter (imp.). He is a capital calf, and is one of a few by Sensation showing what a grand sire we expect him to be. Mr. Ferguson, since the arrival of his bull home, has written for one of a beautiful bunch of last fall heifers, and in a few days I will ship one of the Besse heifers, by Royal Peter (imp.), dam by Beauty's Style of Auchenbraim (imp.) This calf's dam has been one of the most persistent milkers in the herd, milking for three years without drying off; in fact, we could not dry her off before each calf. Mr. J. Wardlaw, Owen Sound, got

a bull calf last year, and came back lately for a heifer, and took the Sensation calf, out of a Blue Bell cow, by Royal Peter. The yearling bulls I offer are of the Blue Bell family; the females being fine milkers with right good teats. The lot of last fall bull calves are an especially good bunch and ought to go very fast at the attractive prices that I am offering them."

### TRADE TOPICS.

A USEFUL MEMORANDUM BLANK.—In a neat little folder sent us recently by the Frost & Wood Co., Ltd., head office, Smith's Falls, Ont., a foot-note calls attention to the fact that the Frost & Wood people are the oldest manufacturers of plows in Canada, having now been in the business for more than sixty years, during which time their implements always maintained the lead in quality and design, have been modified as often as the methods of farming in vogue. The record of the firm during that time, particularly its growth during recent years, speaks volumes for the implements they manufacture. With the folder above mentioned came a neat little memorandum blank, with a convenient ruled form for factory patrons on which to enter daily the amount of milk sent from the farm. The Frost & Wood people deserve credit for suggesting this useful idea in account-keeping. Write for folder and booklet, mentioning this paper.

STUMP PULLER, SNOW PLOW, MILK AERATOR.—An ingenious invention that should be interesting to not a few of our readers is the stone and stump puller advertised elsewhere in this issue by A. Lemire, proprietor, Wotton, Wolfe Co., Que. The strength of the machine may be judged from the fact that it is built to lift a stone weighing 1,800 lbs. By the employment of a simple lever system the machine is fitted to lift, carry and place stones on a four-foot wall, thus enabling one to use field stones to build fences. Another machine advertised by Mr. Lemire is the snow plow with double and movable ears, patented by E. Cote, of Wotton, P. Q. For testimonials as to the efficacy of this implement for keeping

winter roads in good condition, and also for information about the automatic milk aerator, write Mr. Lemire, mentioning the "Farmer's Advocate."

### QUESTIONS AND ANSWERS. Miscellaneous.

#### BEDBUGS.

A correspondent writes asking how to exterminate bedbugs. A German investigator recommends applying turpentine and naphthalin mixed, to all cracks, etc. Follow this up by washing bedsteads, floors, etc., with a hot solution of carbolic soap. To prepare the turpentine and naphthalin proceed as follows: Into a half-gallon jug pour a quart of oil of turpentine, add 150 grains of naphthalin and set the jug in hot water, giving it a few energetic shakes. Another method sometimes recommended is to fumigate with sulphur, which should be burned in a tin, the room being left closed up for a day. Applying coal oil to the bedsteads, etc., is also effective.

#### CAN A FIELD BE DRAINED TOO DRY?

I am tiling a new unbroken field of clay loam. Main drain is eight-inch tile, four feet deep, running along east side of field. Taps are three-inch tile, just four rods apart, running parallel, two and a half feet deep at head. A neighbor has just told me I was spoiling my field by draining it too dry. Kindly advise whether I have adopted the right course or not. M. H. Kent Co., Ont.

Ans.—Drainage removes only the excess or "free" water, which is in several ways injurious to plants and soil. An excessively wet soil not only lacks aeration, but puddles, and afterwards, in dry weather, bakes and rapidly loses its moisture. Removal of free water by drainage prevents this condition, hence a well-drained soil is comparatively moist and friable in dry weather, whereas the undrained land is alternately sad and caked. The moisture that is of value to plants is that called capillary moisture, which consists of thin films surrounding the soil grains; and the drainage removes none of this. The more thoroughly you drain your soil, the more

ter it will be in dry weather. Your system of tiling is all right, although if your field is a level one, some tile might have been saved by running parallel rows lengthwise, instead of short spurs at angles to the main drains. The idea is that as the main tile draws a couple rods on each side; the lower two rods of each branch serves no additional area. However, circumstances must govern in these cases, and, possibly, you were decided wisely by the grade and other conditions.

#### TO CONVERT CIDER INTO VINEGAR.

What should be done with apple cider to convert it into cider vinegar? Should we have put anything in it? The cider was made last fall. R. M.

Ans.—The recipe for making cider into vinegar has been already repeated in these columns. To every ten gallons of cider add one gallon of fresh-fallen soft water (boiling hot); also toast a large, thick slice of bread, soak thoroughly in good fresh yeast and put into the barrel. Then add a liberal amount of "mother of vinegar," the more the better. Set the barrel in some warm place. Keep the bung hole open, with a piece of cheese cloth tacked over to keep out flies and dust. Do not expect good vinegar in less than five or six months; if not satisfactory in that time a few pounds of good brown sugar or molasses will increase the amount of acid-forming material and make the vinegar more strong.

#### Veterinary.

##### DIARRHŒA.

I have 25 head of cattle, and nearly all have diarrhœa. They get good hay, good water and salt twice weekly.

J. A. M.

Ans.—An outbreak like this is certainly due to local causes. It is probably due to either the hay or water, more likely the latter. Change the food and water. If any are in a serious condition, give for an ordinary-sized cow, 2 ozs. laudanum, and 6 drams each powdered catechu and prepared chalk, in a quart of water every four hours until diarrhœa ceases. Add to the drinking water of all affected about ¼ of its bulk of lime water. V.

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

## Zenoleum Profits In Hog Raising.

Profits in hog raising are not accidental. They come as the result of well directed efforts. Hog health is the basis of hog profit. Good care and thrift that add profit, follow as necessary incidents. Contagion must be avoided; disease germs must be destroyed; stomach and bowels must be purged of worms; lice must be killed. Cleanliness means no hog cholera. Failure to do this ordinary service for the hog invites loss to the feeder.

### Forty Agricultural Colleges Use and Endorse Zenoleum

as the sovereign and dependable hog remedy. They have learned its superiority over other medicines by scientific and comparative tests. They show their faith in it by using it on the State Experiment Farms. They proclaim its merits to the people in Experiment Station Bulletins. They advocate the timely and continuous use of

### Wonderful Zenoleum "Coal Tar Disinfectant and Dip" The Great Promoter of Animal Health.

One gallon of ZENOLEUM will be sent you, express prepaid for \$1.50 and it will make 100 gallons of reliable disinfectant solution. Try it for the animal troubles and ailments that are worrying your stock: use it as a disinfectant, germicide and insecticide; for lice, mange, scurvy, ringworm, canker, scab; for removal of stomach and intestinal worms; to cure calf cholera, abortion of cattle, chicken cholera, scab in sheep, cattle mange or itch, etc. We are satisfied that if we can induce you to make the trial you will become more than enthusiastic about Zenoleum. In addition to every representation made above, Zenoleum is guaranteed to be non-poisonous—absolutely harmless for internal or external use. Neither injures skin, discolors wool or roughens the hair.

We ask you to take no chances. Read the Zenoleum guarantee. "If Zenoleum is not all we say it is—or even what you think it ought to be—you get your money back. No argument. Just Money."

Most all druggists handle Zenoleum—if yours won't supply you, we will. The prices of Zenoleum are: One gallon, \$1.50, express paid; two gallons, \$3.00, express paid; three gallons, \$4.50, express paid; and five gallons, \$6.25, freight paid. Send to us for booklets, "Veterinary Adviser," "Chicken Chat" and "Piggie's Troubles." Free.

**ZENNER DISINFECTANT CO., BRAMPTON, ONT. OR 113 BATES ST., DETROIT MICH.**

### GOSSIP.

Professor of logic—I put my hat down in the room. I cannot see it anywhere. There has been nobody in besides myself. Ergo, I am sitting on it!

### ATTEND THE GALT HORSE SHOW.

Those who attended last year, the Galt (Ont.) Horse Show will need no further reminder than the date of the coming one, announced in our advertising columns for June 1, 2 and 3. Those who are interested in an exhibition of equines at their best, should, if possible, arrange to take in this annual open-air event, which is counted one of the best things of its kind, and in some ways surpasses in attractiveness the larger tan-bark exhibitions.

Breeders of pure-bred stock should advertise. By so doing they secure not only an outlet for their surplus animals, but at the same time stimulate a demand among others to follow in their footsteps. All good advertising is more or less educational. By it you teach others the value and importance of discarding scrubs and improving the blood of their herds. No one advertises scrub stock. It is safe to say that the increased demand for pure-bred stock has come as much from advertising as any other single source.

### WOOL MARKET CONDITIONS.

The wool season is now approaching, and owing to the importance of the wool trade throughout the Northwest, some information is necessary to convey intelligent ideas of the value of the different grades of the present clip grown throughout the Northwest.

Last season was an exceptional one in way of advanced market, and Northwest growers marketed their wool at what was considered extreme prices, and rather above the true value of wool at the time, though the market sustained the values as it gradually grew in strength to December. The strength of the market was largely due to the Russia and Japan war orders, which made the market at times exciting. No other orders equally as large would have advanced the market to the same extent; but the wool trade, like all others, made use of the opportunity, and boomed prices beyond their natural level. When these rush orders ceased, wool values at the January London wool sales declined from 10 to 15 per cent., and at the March London wool sales declined about the same. This was due in part to the heavy supply from South America, New Zealand, and Australia, and it was thought at times the consuming power would not be capable of absorbing all that came, without a very much depressed market; but owing to the renewed activity in war orders, and the strong American demand, the downward tendency was checked. This check is considered by some to be only temporary. It is not expected that the present high level of wool can be sustained, as prices are fully 20 per cent. above the average of the last ten years. Forecasting the conditions of the future market, with the extreme low price of cotton and the largely increased supply of wool from the southern hemisphere, which produces 80 per cent. of the total wool production of the world, these conditions should be considered by the dealer and grower with a view to early marketing of their wool.

Our Canadian woollen manufacturers at the present level of the market are anything but prosperous, as the present tariff is not sufficient protection to cope with the British manufacturers. The Canadian wool industries have been greatly reduced within the last few years, and as the Northwest wool is subject to a duty of 12c. per lb. to the United States, this practically prohibits the exportation of these grades to the United States. The Northwest wools, as a rule, have to be consumed by our Canadian manufacturers, and have to be bought on the level of competing grades. There is still some of last year's Northwest wool unsold, owing to the prices being above similar grades of foreign wool. If the wool growers in the Northwest make sale of the coming clip at last year's prices, they will receive full market value, as the outlook is not so promising as last year.

Toronto. WM. GRAHAM.

## GALVANIZED STEEL WOVEN WIRE FENCE



After all is said and done, more of Our Fences are in use than all other makes of Wire Fences combined. Our Sales double every year.

HIGH CARBON.

58 INCH	9
49 IN.	8
41 "	7
34 "	6
28 "	5 1/2
23 "	5
	4 1/2
	4
	3 1/2
	3
	2 1/2

*American Field and Hog Fence.*

*Ellwood Field and Lawn Fence.*

IF YOUR DEALERS DO NOT HANDLE OUR FENCES, WRITE TO US.

**The Canadian Steel & Wire Co., Ltd.**  
WINNIPEG, Man. O HAMILTON, Ont.

We call your special attention to our Extra Heavy Fence, all Horizontal Wires No. 9 Gauge. Weighs more per rod, has greater tensile strength than any other Fence on the market



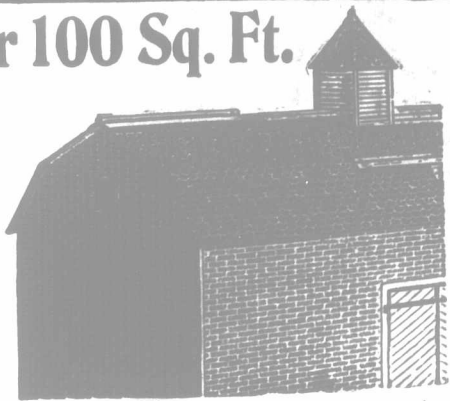
## Steel Roofing and Siding, \$2.00 per 100 Sq. Ft.

Painted red on both sides. Most durable and economical covering for Roofing or Siding, for Residences, Houses, Barns, Elevators, Stores, Churches, Foultry Houses, Cribbs, etc. Easier to lay and will last longer than any other covering. Cheaper than wood shingles or slate. No experience necessary. A hammer and snips are the only tools required. It is semi-late. hardened high grade steel. Brick or Stone Siding at \$2.00 per 100 Square Feet. Pedlar's Patent Steel Shingles at \$2.50 per 100 Square Feet. Also Corrugated Iron, Painted or Galvanized, in sheets 96 inches long. Beaded and Embossed Ceilings. V Crimped Roofing. 2000 designs of Roofing, Siding and Ceilings in all grades. Thousands of buildings through the Dominion covered with our Sheet Metal Goods making them

### FIRE, WATER AND LIGHTNING PROOF.

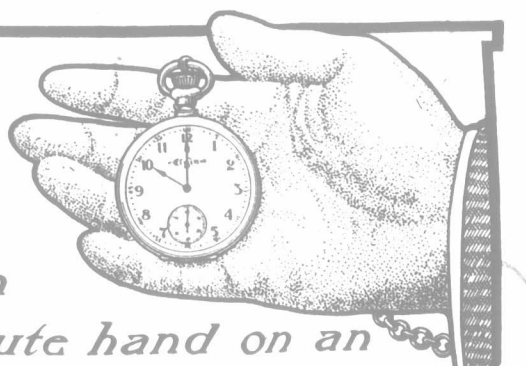
Send in your order for as many squares (10 x 10 feet) as you require to cover your new or old building. The very best roofing for this climate. We can supply Eave Troughs, all sizes, Corrugated or Plain Round, Conductor Pipes, Shoes, Elbows, Spikes, Tubes. All goods shipped day after order is received. We are the largest concern of the kind under the British Flag. Established 1861. Capital Invested \$150,000.00.

**PEDLAR PEOPLE, OSHAWA, ONTARIO, CANADA.**  
Eastern Warehouse—767 Craig St., Montreal, Quebec.



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

The  
Right Hand  
of the  
Busy Man  
is the minute hand on an  
**ELGIN WATCH**



Every Elgin Watch is fully guaranteed. All jewelers have Elgin Watches. "Timemakers and Timekeepers," an illustrated history of the watch, sent free upon request to  
ELGIN NATIONAL WATCH CO., ELGIN, ILL.

On another page is a cut of the five-year-old bay Hackney stallion, Wood Baronet (imp.) 255 (9066), exhibited at the recent Toronto Horse Show by Truman's Pioneer Stud Farm, Bushnell, Ill. Wood Baronet is by Goldfinder 6th, dam Wood Flighty, and his placing of fourth in the exceedingly strong class of senior stallions at Toronto was scarcely so good an advertisement as his conformation, scale and action deserve. Mr. Truman, Jr., who has been for some months in London, Ont., attending to the Canadian trade, left last week for the Old Country to select another importation of Shires, Clydesdales, Hackneys and Percherons, which he expects to have out in time for the Canadian exhibition season. Mr. Truman reports trade as having been exceptionally good in Canada this summer, and with the connection now worked up, the firm should do a good trade this fall.

The prize list, rules and regulations have been issued of the third annual Open-air Horse Parade, to be held in Queen's Park, Toronto, on July 1st, 1905. Competition is open to all Canada; entries close June 19th. The object is to improve the condition and treatment of commercial horses, etc.; to induce owners and drivers to take more pride in their appearance, and the public to take more interest in their welfare, and also to hold annual open-air horse shows for heavy draft, hunter, saddle and harness horses and ponies, and an exhibition of commercial horses. For full information, address Secretary Open-air Horse Parade Association, 56 1/2 King Street, East, Toronto. Last year's show was a grand success, and it is hoped that this year's event will quite eclipse it.

The "Farmer's Advocate" field man takes the opportunity of introducing to our readers Mr. Donald McQueen, Landerkin P. O., Wellington County, Ont., whose small but select herd of Scotch-topped Shorthorns were recently inspected. Mr. McQueen has been very careful in selecting first-class sires for use in his herd. Bulls from such noted sires as Imp. Royal Member, Imp. Royal Sailor, Imp. Lord Lansdowne and Bampton Hero have laid the foundation of a choice herd of females. Mr. McQueen has been very fortunate in securing the stock bull from the herd of Mr. W. H. Wallace, of Mount Forest, to use in his herd. This sire is not only a good individual, but a good stock getter, and is sure to nick well with the cows in this herd. He is Roan Robin =29575, a grandson of the once famous Royal Sailor (imp.). Several of the young things (some of them ready to breed) are by Imp. Newton Prince, a worthy son of Newton Stone, a bull that, it is said, was sold to an Argentine buyer at \$13,000. Among the young stock that is for sale are two promising bull calves, a few months old, by Imp. Newton Prince, one from Matchless of Bowfront 34580, the other one from Bella 47559, whose sire was County Member, a son of Imp. Royal Member. Judging from their present appearances and from the Shorthorn character seen in their dams, these bulls are going to be good enough to carry on the herd. The farm is known as the McQueen Stock Farm, and is situated a few miles from Mount Forest.

## WINDMILLS



Grain Grinders,  
Gas & Gasoline Engines,  
Tanks,  
Bee Supplies,  
Etc.

WRITE FOR  
CATALOGUES.

Goold, Shapley & Muir Co., Ltd.  
BRANTFORD, CANADA.

## GALT HORSE SHOW

JUNE 1, 2, 3

Reduced Fares on All Railways.

C. R. H. WARNOCK, Secretary,  
Galt, Ontario

Clydesdales, Shorthorns and Leicesters—Present offering: One choice mare, 4 years old, from imp. sire and dam. Two young bulls (sired by Golden Count 28440). Prices reasonable.

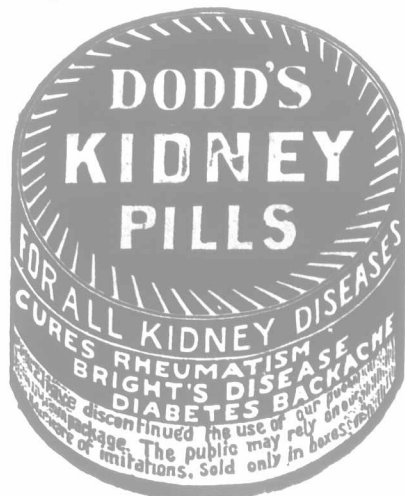
W.M. McINTOSH, Prop., Burgoyne P. O., Port Elgin Sta. and Telegraph.

Lawyer Thomas Riley, of Boston, while trying a case before a jury in the superior court, stood up to cross-examine a witness whose testimony was very damaging to his case.

"On the night in question, Mr. Witness," he began, "did you not have several drinks of whiskey?"

"That's my business," answered the witness.

"I know it's your business," quickly responded Mr. Riley, "but were you attending to it?"



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

### GOSSIP.

Mr. Hudson Usher, Queenston, Ont., writes: "I have recently shipped to Mr. Jas. A. Caldwell, of Gilchrist, Simcoe Co., Ont., a yearling Shorthorn bull, got by Derby (imp.) =32059=, dam Veronica (imp.) =38282=, by that noted sire, Brave Archer (imp.). Mr. Caldwell ordered this bull by letter, and after receiving him writes me he is well pleased with him in every way, as, in fact, he should be, as this young bull is of the correct Scotch type—deep and thick, a mellow handler, and with his remarkable breeding should prove a valuable sire. This bears out the article in last issue of the 'Farmer's Advocate' on 'Selling Stock by Correspondence.' All the sales I have made in this way have been satisfactory, and any reliable breeder will give particular attention to his letter orders. With the right sort of stuff, fair prices, and an advertisement in the 'Farmer's Advocate,' it is easy to do business."

In the district around Mount Forest, County of Wellington, Ont., several small but select herds of Shorthorn cattle are located, among which that of Mr. W. H. Wallace, whose advertisement appears in this paper, ranks A1. The grand, thick, even-fleshed bull, Roan Robin, a grandson of Imp. Royal Sailor, has done yeoman service in the herd for the past few seasons, and has ably assisted to build up a No. 1 herd. This bull would do credit to any show-ring, were he fitted. His successor, as head of the herd, is Prince Charles =50412=, a red two-year-old, bred by the well-known breeders and showmen, J. & W. Russell, of Richmond Hill. This young bull has improved very much within the last year, and bids fair to develop into a choice bull and to cross well on roan Robin's daughters. His first crop of calves are coming right. Among the young bulls on hand are two ready for service, one twelve-months-old dark red, by Imp. Newton Prince (40402), he by Newton Stone, a bull that is said to have sold for \$13,000 to an Argentine buyer. This young bull's dam was Rosebud, by Roan Robin. The other is thirteen months old, from an English Lady cow, whose dam was by Bampton Hero. Although his sire is not imported yet, he is a more desirable sire than very many that are from the old sod. This pair of bulls are good quality, thick, sappy fellows, the latter very much better than the majority of bulls. Another good one, a few months younger, is by the same sire. These bulls can be bought well worth the money.

### NORTHERN FARMERS' INSTITUTE MEETINGS.

The following meetings at which a number of subjects, both interesting and profitable to farmers, will be discussed, have been announced by Mr. Geo. Putnam, Supt. of Farmers' Institutes for Ontario:

Speakers: T. G. Raynor, Rose Hall; Dr. Henry G. Reed, Georgetown; Miss Lillian D. Gray, 650 Bathurst St., Toronto.

Walford, June 7; Blind River, June 8; Iron Bridge, June 9; Bellingham, June 10; Sowerby, June 12; Livingstone Creek, June 13; Little Rapids, June 14; Alma Heights, June 15; Tesharats, June 16; Maclean, June 17; Bar River, June 19; Echo Bay, June 20; South Tarantorus, June 21; East Korah, June 22; Base Line, June 23; Goulais Bay, June 24; Mantowaning, June 27; Wikwemikong, June 28; Green Bay, June 29; Shogomah, June 30; Skish, July 1; Tehkumnah, July 3; Mudenoya, July 4; St. Charles, July 7; Warren, July 8; Verner, July 10; Sturgeon Falls, July 11; North Bay, July 12.

Speakers: W. E. Kidd, Simcoe; Henry Grose, Letroy; Miss Agnes Smith, Hamilton; Bala, June 6; Port Carling, June 7; Brackening, June 8; Gravenhurst, June 9; Germania, June 10; Bracebridge, June 12; Bayville, June 13; Callander, June 15; Powassan, June 16; Nipissing, June 17; Restoule, June 18; Loring, June 20; Ariston, June 21; Golden Valley, June 22; Comandou, June 23; Trout Creek, June 24; South River, June 26; Sundridge, June 27; Buck's Falls, June 28; Margaretaville, July 3; Medforth, July 4; Bee Lake, July 5; Kearney, July 6; Fenshlagh, July 7; Spruce Dale, July 8.



### A BAD HITTER.

His Bunches and Bruises can be removed quickly without stopping work with

### ABSORBINE

This remedy cures Lameness, Hils Pain, removes any Soft Bunch without blistering or removing the hair, and pleasant to use. \$2.00 per bottle, delivered, or at dealer's. ABSORBINE, J.E., for man-kind, \$1.00 Bottle. Allays inflammation rapidly. Cures strains. Book 11-B Free. W. F. Young, P.D.F., 73 Monmouth St., Springfield, Mass. Canadian Agents, Lyman, Sons & Co., Montreal.

### Dr. Page's English Spavin Cure



For the cure of Spavins, Ringbones, Curbs, Splints, Windgalls, Capped Hoof, 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 blister. This is the only preparation in the world guaranteed to kill a Ringbone or any Spavin, or money refunded, and will not kill the hair. Manufactured by DR. FREDRICK A. PAGE & SON, 7 and 9 YORKSTOWN 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.

### IMPORTED

## Clydesdales



My lot of selected stallions and fillies just landed were got by such noted sires as Senator's Heir, Lord Lovat, Prince of Caruchan (8151), Moncreiffe Marquis (9065) and others noted for their individual quality.

GEO. STEWART, Howick, P.Q.

### CLYDESDALE and SHORTHORNS For Sale.

One first-class registered 2-year-old stallion, sire MacQueen, imp. dam from imp. sire and dam. Also one red 16-months old bull by Imp. Royal Sovereign, and a few heifers bred to Scotland's Fame. At a bargain if taken soon. For particulars write to

JOHN FORGIE, Proprietor,  
Claremont Stn. and P. O.

### Clydesdale Stallions and Fillies.

Imported and Canadian-bred. For sale: Two Canadian-bred stallions, rising 3 years, from imp. sire and dam. Also 5 SHORTHORN Cows and Heifers for sale. Reasonable prices. For particulars write to

JAS. W. INNES,  
Oxyview Farm, Woodstock, Ont.

FOR SALE: The imported

## Clydesdale Stallion

Uam Var [2129] (9457).

Apply to DAVIS & GRAHAM,  
Schomberg, Ont.

### IMPORTED

## Clydesdale Stallions

For sale, reasonable. Come and see them or write to

Phillip Herold, V. S., Tavistock.

### CLAYFIELD STOCK FARM

Clydesdales, Shorthorns and Cotswolds.

41 prizes won at World's Fair at St. Louis, 11 firsts, 5 champions. Will now offer my entire flock of rams and ewes at prices according to quality.

J. C. ROSS, Jarvis, Ont.

### IMPORTED

## CLYDESDALE STALLIONS AND FILLIES.

Also HACKNEY STALLIONS FOR SALE at reasonable prices. Come and see them, or write to

ADAM DAWSON, Cannington, Ont.

ADVERTISE IN THE ADVOCATE.

LAFAYETTE STOCK FARM

J. Crouch & Son, the Great Importers, of Lafayette, Indiana.



and the largest importers in the world of

GERMAN COACH, PERCHERON and BELGIAN STALLIONS,

have just received at their new sale barns, Bernard House, London, another car of Percheron, Belgian and German Coach stallions. All are imported from France, Belgium and Germany, and are the largest prizewinners of 1904. We exhibited 100 head at the St. Louis World's Fair, and we have won more prizes in 1904 than all others combined. We guarantee every horse to be satisfactory, sure breeders, and back them up by a responsible guarantee. We sell nothing but good sound serviceable horses that will do our customers good.

MESSRS. U. V. O'DANIEL and R. P. WATERS, managers and salesmen, London, Ont.

ADDRESS: J. CROUCH & SON, LONDON, ONT.

Have just received a new importation of 131 head of high-class Percheron, Belgian and German Coach Stallions.

A REPUTATION!



A reliable article like STEVENS' OINTMENT

as used in the Royal Stables, has 60 years' reputation! Can you afford to neglect it? It will surely cure

Splint, Spavin, Curb, Ringbone, etc.

and all enlargements in horses and cattle. Price, 75c. small, \$1.50 large box. A little goes a long way. Get a box now. If your local chemist cannot supply you, write direct to

Evans & Sons, Ltd., Montreal, Que. Agents for Canada.

JOHN CHAMBERS & SONS

Holdenby, Northampton, Eng.

Farm over 2,000 acres of land just in the centre of the Shires, and breed the very best and soundest of the

SHIRE HORSE

which from birth are kept in their natural condition, neither forcing nor overfeeding for showing purposes.

Canadian buyers visiting England are invited to call and see what we have to show them and obtain their stallions and mares direct from the men that breed them.

No fancy prices, and all delivered free Liverpool landing stage. Correspondence invited.

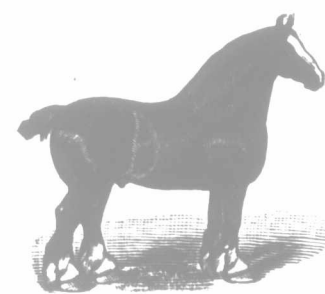
Station—Althorp Park, L. & N.W. Ry.



Clydesdale Stallions

Our third consignment since Toronto Fair has just arrived, per S. S. Athena, from Glasgow, which includes several of the best colts ever landed in America. Prices right. See this lot.

JAMES DALGETY, London, Ont.



SIMCOE LODGE STOCK FARM CLYDESDALES

Any persons wanting to purchase Clydesdale fillies and stallions for breeding should call on us before buying elsewhere, as we always have a number of prize-winners in our lot.

HODGKINSON & TISDALE BEAVERTON, ONT.

Long-distance Phone in connection with Farm 70 miles north of Toronto, on Midland Division of G. T. R.

Special Notice to Our Readers.

When writing any advertiser in this issue kindly state plainly that you saw Ad. in the

FARMER'S ADVOCATE AND HOME MAGAZINE.

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

TRADE TOPICS.

METAL SHINGLE AND SIDING CO., LTD.—Water-tight, fireproof, durable and neat is the ceiling, roofing and siding material manufactured by the Metal Shingle and Siding Co., Ltd., Preston, Ont. To renovate old rooms, covering up dilapidated plaster, and giving the room a new and attractive appearance, making it sanitary and fireproof, try the metal ceilings advertised last issue, and more fully described in the company's catalogue. For siding up buildings on the outside, the material of the Preston firm exactly fills the bill, while when it comes to roofing material, their safe-lock shingles are the best thing going. It is worth while examining the mechanical construction of these shingles, especially the perfect way in which they interlock on all four sides, leaving no chance for leaks. Another style of roofing, the convenience and cheapness of which commends it to our judgment is the corrugated, galvanized sheets, which are rapidly coming into use. Put on over the rafters, they make an excellent roof, and are no more expensive than wooden sheeting and shingles. For catalogue, with full description and names of many satisfied patrons, write at once to Preston, mentioning this paper.

AMERICAN WALTHAM WATCH COMPANY.—Undoubtedly the attention of every one of the thousands of readers of the "Farmer's Advocate and Home Magazine" was struck by the recent beautiful advertisement of the American Waltham Watch Company, of Waltham, Mass., which appeared on the outside back cover. The advertisement itself was one of the hand-somest that has ever appeared in this paper, but it was remarkable even more for the importance of the message it brought to the farmers of Canada—the statement of the Swiss Commissioner and member of the International Jury on watches at the great Centennial Exhibition, at Philadelphia. This was the statement of one who, coming from the country which witnessed the birth and was long considered the home of the watch-making industry of the world, was forced to acknowledge that the Waltham Company produced watches of such superior quality and workmanship that it had transferred the leadership from Switzerland to America. One of the first watch adjusters of Switzerland, after a careful examination of a Waltham watch, declared that one would not find a watch to compare with it in 50,000 of Swiss make. A poor watch is dear at any price; a good one is worth its cost. A reliable watch, like the Waltham, is a splendid investment. It gives better returns, and depreciates less than any other article of personal wear or use. Like the human heart, it works unremittingly. If treated with common care, and cleaned as occasion requires, it will, excepting accidents, out-live its wearer. More than 12,000,000 people to-day have Waltham watches, which are manufactured under conditions and by methods that have produced the finest pocket timepieces in the world. The Canadian farmer will be impressed by the merit of a watch which was chosen more than twenty-four years ago by the British Government as the official time-keepers on the State railways in India. It is in use also upon all the leading railroads in Canada and the United States. The Canadian farmer who wishes to buy a Waltham watch, need be in no doubt about doing so. The dealer who sells it may go out of business, but the American Waltham Watch Company stands sponsor, guaranteeing the movement to be made of the best materials, and upon the most approved principles. For any defect in material or performance under fair usage, the company holds itself responsible, not for a year or for a decade, but always. A handsome illustrated book about watches, "The Perfected American Watch," will be sent to anyone free upon request, if you write to the American Waltham Watch Company, Waltham, Mass., U. S. A.

"Somehow this picture of Martha don't look natural to me," mused Uncle Goshall Hemlock, as he surveyed his wife's new photograph.

"Somethin' is wrong about it, sure. H-m-m! What kin it be? Oh, I see now. She's got her mouth shet."

HORSE OWNERS! USE



GOUBAULT'S CAUSTIC BALSAM.

A safe, speedy and positive cure. The safest, Best BLISTER ever used. Removes all bitches from horses. Impossible to produce scar or blemish. Send for descriptive circulars.

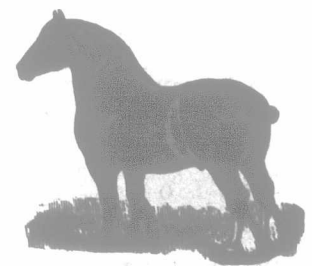
THE LAWRENCE-WILLIAMS CO., Toronto, Can.

FONTHILL STOCK FARM

50

SHIRE HORSES

AND MARES to choose from.

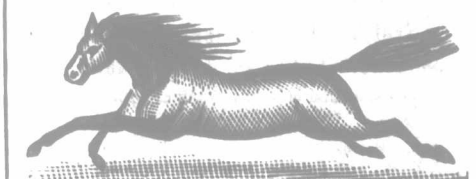


MORRIS & WELLINGTON,

FONTHILL, ONTARIO

"THE REPOSITORY"

Burns & Shoppard, Proprietors,



Cor. Simcoe and Nelson Sts., TORONTO.

Auction Sales of Horses, Carriages, Buggies, Harness, etc. every Tuesday and Friday at 11 o'clock.

Special Sales of Thoroughbred Stock conducted. Consignments solicited. Correspondence will receive prompt attention.

This is the best market in Canada for either buyer or seller. Nearly two hundred horses sold each week.

Canadian Clydesdales for sale. One stallion rising 3 years. For further particulars, apply to GEO. BOTHAM, Bradford, Ont.

At stud Abayan Kohelian, Arab Stallion High-caste, chestnut height, 14.2. Suitable for breeding high-class light horses, polo ponies, etc. For particulars, apply CAMERON & HARVEY, Cobourg, Ont.

PORTER'S GOLD & SILVER FAWN ST. Lambert Jersey Herd

I have a number of bulls, cows and heifers for sale. No better blood. No better cream-producers. No better lookers.

T. PORTER, - - Carleton West, Ont.

ONTARIO'S LARGEST HERD OF

HEREFORDS

Buyers will find our prices reasonable, considering the quality of 15 young bulls, 30 heifers and 30 cows. Correspondence invited.

A. S. HUNTER, - Durham, Ontario.

THE SUNNYSIDE HEREFORDS

Imp. Onward in service. Eight choice bulls of serviceable age; this includes 4 2 year-olds, all of the blocky, heavy type, at prices that will move them. We can yet spare some cows and heifers. O'NEIL BROS., Sunningdale, Ont. Iderton Sta., L. H. & B.; Lucan Sta., G.T.R.

GLENGORE STOCK FARM, ABERDEEN-ANGUS

Present offerings: Choice young bulls, ready for service; also heifers, all ages. For particulars, write to GEO. DAVIS, Altona P. O. Erin Sta., C. P. R.

HURON CENTRAL STOCK FARM OF ABERDEEN-ANGUS

Our present offering is seven young bulls, 3 to 18 months old. All sired by the champion bull Goderich Chief 57457. All stock registered in the American Herdbook. Also offering the young coach stallion Godoller, winner of 1st at London this year. E. BUTT & SONS, - Clinton, Ont.

We have **BULLS** fit for service; three im-  
two fine ported females bred to a  
bull that was a winner at Int'l Show, Chicago.  
A few home-bred females; some of them win-  
ners. Good individuals and reasonable prices.  
**JAMES BOWMAN**, o **Waukegan, Ont.**

**BARGAINS** for 30 days. Durham cow, 7  
years, and bull calf, by a Watt  
bull, \$100; two dark red bulls, 9 months, \$50  
each; Yorkshire boars and sows, 30 to 40 lbs.,  
at \$6 each; our yearling stock boar, quiet and  
a good getter, \$16.

**W. R. BOWMAN**, Mount Forest, Ont.  
**FOREST VIEW FARM** 4 bulls from 8 to 12 months  
old; prizewinners and from  
**HEREFORDS**, prize-winning stock. Sev-  
eral heifers bred on the  
same lines; choice individuals, for sale. o  
**JOHN A. GOVENLOCK**, Forest Sta. and P.O.

**BELMAR PARO  
SHORTHORNS**

Bulls in service: Merryman, imp. (77263)  
=39075=; Pride of Windsor, imp. (Vol. 50)  
=50071=; Nonpareil Archer, imp. (81778)  
=45202=. Our females have been carefully  
selected and are of the best Scotch breeding,  
many of them imported. Address correspond-  
ence to

**PETER WHITE, JR., PEMBROKE, ONT.**

**Queenston Heights Shorthorns**

Two bull calves, 6 and 8 months, by  
Derby (imp.) and from good milk-  
ing dams. Bargains for quick sale.  
Also a few young cows and heifers. o

**HUDSON USHER, Queenston, Ont.**

**JOHN GARDHOUSE & SONS**  
Windsor P. O., Ont., Breeders of

**Scotch and Scotch-topped Shorthorns,  
Shire Horses, Lincoln and Leicester Sheep.**

A good selection of young stock of both sexes always  
on hand for sale. **Scotch Shorthorns** (Vol. 50)  
of best of breed. **Shire Horses** (Imp. Derby) of  
highest quality. **Lincoln and Leicester Sheep** of  
O. E. S. and other fine strains. o

**Shorthorn Cattle and Lincoln Sheep**

Shorthorn bulls, cows and  
heifers for sale at greatly re-  
duced prices for the next 60  
days. o

**J. T. GIBSON, Denfield, Ont.**

**Scotch Shorthorns**

Herd headed by Imp. Royal Cham-  
pion. Young stock for sale from  
Imp. sires and dams. For particulars  
write to

**ED. ROBINSON, Markham Sta. & P. O.**  
Farm within town limits.

**PINE GROVE STOCK FARM**  
ROOKLAND, ONTARIO, CANADA.  
Breeders of choice

**SCOTCH SHORTHORNS  
and SHROPSHIRE.**

**W. C. EDWARDS & CO., Ltd., Props.**  
**JOSEPH W. BARNET, Manager.** om

**MAPLE LODGE STOCK FARM**

1854.

Eight very choice young bulls, of the  
best breeding and from first-class milk-  
ing cows. A few handsome heifers  
also for sale, and a few Leicesters. om

**A. W. SMITH, Maple Lodge P. O., Ont.**

**7 Shorthorn Bulls**

Choice Scotch-bred ones, for sale at  
moderate prices. For particulars,  
apply to

**J. & W. RUSSELL, Richmond Hill, Ont.**  
Yonge St. trolley car from Union Station,  
Toronto, passes the farm. om

**BARREN COW CURE**

makes any animal under 10 years old breed, or  
refund money. Given in feed twice a day.  
Particulars from

**L. F. BELLECK, Morrisburg, Ont.**

**The Ontario Veterinary College, Limited.**  
Temperance Street, Toronto, Canada.  
Associated with the University of Toronto.

Patrons: Governor-General of Canada, and Lieut.  
Governor of Ontario. Fee \$25.00 per session. Apply  
to **Agassiz Street, P. O. V. B., Principal.** o

**For Sale**—Three extra good **SHORTHORN  
BULLS**, at special prices for one  
month. Ages range from 6 to 11 months; two  
are dark red and one dark roan. All are first-  
class individuals, and will sell at reduced  
prices if sold within one month. om  
**JOHN McFARLANE, Dutton, Ont.**

**For Sale**—Some **Young Cows**, with calves at  
choice foot, and  
heifers.  
**BELL BROS., The "Cedars" Stock Farm,**  
Bradford, Ont. om

**SHORTHORNS FOR SALE**

I am offering for sale my imp. bull, 13  
months old, and two red bull calves  
one of them is a Golden Drop ready to  
wean. Also two good heifer calves. o  
**Hugh Thomson, Box 556, St. Mary's, Ont.**

**Awaken  
The Liver**

AND YOU REMOVE THE CAUSE OF  
INDIGESTION, BILIOUSNESS  
AND CONSTIPATION.

**DR. CHASE'S  
KIDNEY-LIVER PILLS.**

The liver, when in health, filters bile  
from the blood, where it is poison, and  
pours it into the intestines, where it is  
necessary to digestion and a proper  
working of the bowels.

Once the liver becomes torpid and  
sluggish in action the "bile poison" is  
left in the blood, where it causes bilious-  
ness, jaundice, indigestion and headache.

The tongue is coated.  
The breath bad.  
The stomach sour.  
The complexion muddy.  
The bowels irregular.  
The kidneys clogged.

Besides the pains and aches consequent  
on the poisoned condition of the sys-  
tem, there is the greatest danger from  
such diseases as Bright's disease and ap-  
pendicitis.

Dr. Chase's Kidney-Liver Pills thor-  
oughly cleanse the kidneys, liver and  
bowels, and by their direct action on the  
liver cause a healthful flow of new bile to  
aid digestion and ensure the natural and  
healthful action of the bowels.

There is no means known by which in-  
digestion, biliousness and constipation  
can be so promptly and thoroughly cured  
as by Dr. Chase's Kidney-Liver Pills.

Dr. Chase's Kidney-Liver Pills, one pill  
a dose, 25 cents a box, at all dealers,  
or Edmanson, Bates & Co., Toronto.  
The portrait and signature of Dr. A. W.  
Chase, the famous recipe-book author, are  
on every box.

When one of the city ministers of Glas-  
gow was travelling one day by the sub-  
way he got into conversation with a  
fellow-passenger, who had the appear-  
ance of being an artisan. The latter  
was very communicative, and in the  
course of conversation stated that he  
was a coupler on the railway. "Oh,"  
said the minister, "I myself have been  
in that line of business for the last  
thirty-five years." Looking up, and per-  
ceiving from his clerical collar the pro-  
fession to which his fellow-traveller be-  
longed, the railway coupler joined: "Oh,  
but I can beat you, sir." "How can  
you beat me?" "Well, sir, I can un-  
couple, and ye canna; ye couple yours  
for better or for worse!"

**THERE IS NOW  
A MASS OF PROOF**

**That Lumbago is Always Cured  
by Dodd's Kidney Pills.**

Quebec Man Cured His Kidneys with  
Dodd's Kidney Pills, and His Lumbago  
Vanished.

Quebec, P. Q., May 22nd.—(Special).—  
John Ball, a bricklayer, residing at 57  
Little Champlain Street, this city, has  
added his statement to the great mass of  
proof that Lumbago is caused by dis-  
ordered Kidneys, and consequently easily  
cured by Dodd's Kidney Pills. Mr.  
Ball says:

"I was troubled with Lumbago for two  
years. I could not work. I had to get  
up at nights to urinate so often that my  
rest was broken. I read of cures by  
Dodd's Kidney Pills, and made up my  
mind to try them. After the first box  
I could see and feel a change. Three  
boxes cured me completely."

Lumbago, like Rheumatism, is caused by  
uric acid in the blood. Uric acid can-  
not stay in the blood if the Kidneys are  
working right. Dodd's Kidney Pills  
make the Kidneys work right.

**QUESTIONS AND ANSWERS.  
Miscellaneous.**

**THE CANNING BUSINESS.**

Enquirer.—During the past two or  
three years, we understand, the canning  
business in Ontario has paid well. It  
is largely in the hands of the Con-  
solidated Cannery Association, which  
controls some 21 or 22 factories.

**POULTRY BOOKS.**

Would you please mention in your  
paper if you know of any good work on  
poultry-raising? H. & Co.

Ans.—Poultry Craft, by John H.  
Robinson, \$2; Farm Poultry, Watson,  
\$1.25. The former is most highly  
recommended. Order through this office.

**BRAN IN CONSTANT SUPPLY.**

Would there be any danger of over-  
feeding in keeping dry bran constantly  
before calves and pigs, provided a con-  
stant supply had always been before  
them from birth? SUBSCRIBER.

Ans.—No; but the supply should be re-  
newed every day so as to have the feed  
fresh. If allowed to be long in the  
manger, it would become musty and un-  
palatable after being breathed upon.

**PLAN OF BENT FOR PLANK-FRAME BARN  
WANTED.**

Can you give me a plan of a center  
and an end bent of a plank barn 36 x 50?  
I want to use a fork or slings. Can  
you tell me where I can get plans of a  
plank frame? J. L.

Ans.—Up to date, we have failed in our  
efforts to get satisfactory bent plans of  
the kind desired. Can any reader favor  
us with drawing and description?

**BREEDING YOUNG BULL.**

I have a fine Hereford bull, dropped  
Sept. 24th, 1904, weighs about 600 lbs.  
now. How many cows should he be bred  
to this summer? C. H. W.

Ans.—He should not be bred to any  
cows before he is one year old, and then  
to not more than two in a week for a  
month or two. Twenty-five to 30 cows  
should be about the limit for the first  
six months after he is a year old, and  
50 to 60 in the same space of time after  
he is two years old, and only one service  
in each case should be allowed.

**BEST WAY TO GET RID OF GROUND HOGS.**

I have a field of fall wheat that is al-  
most destroyed by ground hogs. Would  
you be kind enough to give me the  
quickest way of destroying them as soon  
as possible? J. H.

Peterboro Co., Ont.

Ans.—Poisoning, by placing in the bur-  
rows cloths dipped in carbon bisulphide,  
an inflammable poisonous liquid which  
volatilizes readily, forming a vapor that  
is heavier than air and hence sinks to  
the bottom of the burrow, killing the  
ground hogs, is a remedy that has been  
recommended in these columns, and is  
worth trying, though we are not optimis-  
tic as to the results. Perhaps shooting is  
as good as anything. It is the only  
expedient we have ever tried. If any  
reader knows of a better way, his ex-  
perience will be welcomed.

**A NOVEL BILL.**

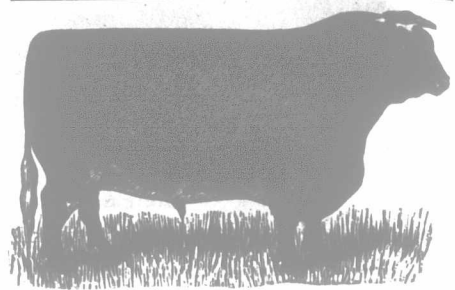
The American Veterinary Review quotes  
from the N. Y. Phil. Medical Journal, of  
April 1st, as follows:

"The Legislature of the State of  
Pennsylvania passed a bill on March  
21st, by 105 yeas to 28 nays, providing  
that it shall be compulsory for institu-  
tions in the State, interested exclusively  
or especially with the care of idiots and  
imbecile children to appoint upon their  
staffs at least one skilled neurologist and  
one skilled surgeon of recognized ability,  
whose duty it shall be, in conjunction  
with the chief physician of the institu-  
tion, to examine the mental and physical  
condition of the inmates. If in their  
judgment deemed advisable, it shall be  
lawful for the surgeon to perform such  
operation as shall be decided safest and  
most effective to prevent procreation.  
The operation shall not be performed ex-  
cept in cases that have been pronounced  
non-improvable after one year's residence  
in the institution.

Promoter—"I hope you don't think me  
dishonest?" Shorn Lamb—"Not at all,  
you only made a grammatical error. You  
told me I should have a beautiful little  
dividend at the end of six months; what  
you intended to say was 'beautifully lit-  
tle.'" "

**Fistula  
and  
Poll  
Evil**

Do yourself what horse doctors  
charge big prices for trying to do. Cure  
Fistula or Poll Evil in 15 to 30 days.  
**Fleming's  
Fistula and Poll Evil Cure**  
is a wonder—guaranteed to cure any case—  
money back if it fails. No cutting—no scar.  
Leaves the horse sound and smooth. Free  
Book tells all about it—a good book for any  
horse owner to have. Write for it.  
**FLEMING BROS., Chemists,**  
45 Front Street, West, Toronto, Can.



**Arthur Johnston  
GREENWOOD, ONT.**

Offers the following:

- 5 imp. bulls, all registered in E. H. B.
- 7 high-class home-bred bulls, all by imp. sires,  
and from imp. or pure Scotch cows.
- 7 imp. cows and heifers.
- 7 very fine heifers of our own breeding, by imp.  
sires, and mostly from imp. dams. om

**SHORTHORNS**

Still have a few good young  
bulls to offer. Also an ex-  
ceptionally good lot of heifers,  
among which there are show  
animals. Prices easy.

CATALOGUE.

**H. CARGILL & SON, CARGILL, ONT.**  
**JOHN CLANBY, Manager.** om

**MAPLE SHADE  
SHORTHORNS**



Nine young bulls  
fit for service.  
Showing the finest  
Cruckshank  
breeding.  
Good Size, Quality,  
Flesh and Bone.

Inspection invited. Catalogues on  
application. om

**JOHN DRYDEN & SON, Brooklin P. O., Ont.**

**T. DOUGLAS & SONS,  
Strathroy, Ontario,  
SHORTHORNS and GLYDESDALES**

Present offerings: 12 young bulls of No. 1  
quality, ready for immediate service; also  
cows and heifers of all ages. Also one im-  
p. stallion and two brood mares. Prices reason-  
able. Visitors welcome. Farm one mile from  
town. om

**LIVE-STOCK EAR LABELS**

Farmers and ranchers will find  
these labels very useful. Write  
for particulars and prices. Ad-  
dress: **F. G. JAMES,**  
om **Bowmanville, Ont.**

**Cedar Vale Stock Farm** is offering for sale a  
few **Shorthorn**  
Bulls of excellent breeding and quality at low  
prices for the next 60 days. For particulars,  
write to **JOHN SCOTT, Dumblane P. O.**  
Port Elgin Stn. and Telegraph. o

**River View Stock Farm**—Present offering: A  
couple of thick, young  
Shorthorn Bulls; ready for service, of excel-  
lent breeding; price extremely low consid-  
ering quality. For particulars, write to  
**A. J. ROWLAND, Dumblane P. O.**  
Port Elgin Stn. and Telegraph. o

**J. WATT & SON**—Some very superior Bulls  
Apply for particulars.  
**Salem P. O., Elora station, G.T.R. & C.P.R. o**

**Shorthorn Bulls**—I have for sale two good  
young roan Shorthorn bulls,  
fit for service, sired by imported Scottish Peer  
=40424=. Come and see, or address,  
**JAMES SNELL,** o **Clinton, Ont.**

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

MAKE A  
**FREE TEST**  
 OF  
**International Sheep Dip**  
 THE  
**BEST AND CHEAPEST**  
 CURE FOR

Mange, Scab, Bot Flies, Lice, Canker, Foot Rot, Grease, Ring Worm, Ulcers, Sores, Sore Udders, Scales, Bites, Stings, Fleas, Scald Blight, Maggots, etc., and prevents Hog Cholera and Contagious Abortion.

**As a Sheep Owner you will be Interested in this**

For a number of years we have realized the immense field for a good sheep dip, and, to be exact, three years ago we started experimenting with a view of producing a dip that would not only cure the various parasitic diseases of sheep, but in addition to this would, at the same time, act as a tonic to the skin, stimulating the roots of the wool to renewed activity, and thus produce a heavier growth of the fleece. We have at last succeeded beyond our expectations. Time after time just as we felt that we had mastered our project we would discover some undesirable feature which would necessitate that laying aside of our dip and a new start was made. But we profited by our mistakes, as one must, for no man can spend three years on one line of work and not profit by his mistakes. Those same mistakes cost us money, and we consider they are worth all they cost. They taught us what not to do, and when one has learned all the things he must not do it is a comparatively easy matter to get results.

Knowing "International Sheep Dip" as we do assures us that there is a splendid future for it in the Dip field.

We can tell you what "International Sheep Dip" is and what it will do. But—"International Sheep Dip" can tell its own story much more eloquently for, after all, results speak loudest.

**Some reasons why it is best—**

It is a 20th century product and we have profited by the mistakes of others. It gives an **absolutely perfect solution with water.**

It is positively **non-poisonous.**

It **kills** all external parasites.

It soothes and heals the irritated and sore skin.

It stimulates the **roots or follicles** of the wool, increases the **yolk**, and therefore not only gives a **heavier growth** but gives a fibre of a finer quality—that can be readily seen by the increased brilliancy and transparent lustre at the **root** of the wool.

It is the most economical dip on the market.

Last, but not least

Here our faith is not demonstrated. Just fill in the blank at the bottom of this sheet and we will ship you enough "International Sheep Dip" to dip the entire flock.

If it cures the diseases and you are entirely satisfied, pay us. If not, we don't want a cent and will credit your account in full. We believe in the sheepman and we believe in "International Sheep Dip." This will explain why we make such an offer. When you dip your sheep you expect results, and unless you get them you should not pay for an unsatisfactory article.

Such a proposition as ours could not be made on any but an article of **undoubted merit.** We know that International will do all we say in the majority of cases. Should it fail in your hands we cheerfully cancel your account. We can do no more. May we hear from you? We have a paid-in capital of \$2,000,000 which should guarantee our good faith.

**SPECIAL OFFER**

Fill out and Return this Blank

**International Stock Food Co., Toronto, Can.**

Please ship me ..... gallons of International Sheep Dip at your special price of \$1.25 per gallon or \$1.00 per gallon if my order calls for over 25 gallons; for which I promise to pay in 90 days, providing its use is satisfactory.

**SPECIAL AGREEMENT**

If International Sheep Dip is not satisfactory I can return to you freight prepaid the balance I have on hand and receive credit in full of my account.

**YOU ARE ALSO TO SHIP ME EXTRA AND FREE FOR FREIGHT**

Enough of your other preparations to cover the cost of freight from Toronto to my shipping point.

Fill in this Stock or Land Statement or give Bank or Dealer Reference.

I give the following STOCK STATEMENT or LAND STATEMENT or BANK REFERENCE for the purpose of having you ship me the above goods.

I own ..... SHEEP, ..... Cattle, ..... Horses, ..... Hogs. I own a ..... acre farm. I rent a ..... acre farm.

Thousands of Stockmen give us Bank Reference. If you give Bank Reference, or Refer to your Dealer, use this line.....

Sign your Name on this line.....

P.O. Address..... Co..... Province.....

Ship to..... Care..... Ry. Give railway shipping point on this line if your town is not on railway. Name railway on which your town or shipping point is located.

**THIS OFFER MAY NOT APPEAR AGAIN  
 DON'T DELAY--SEND TO-DAY**

**TRADE TOPICS.**

**ENGLISH COOPER DIP.**—In choosing a dip, certain points should be borne in mind. Hundreds of decoctions may be termed insecticides, but few only achieve the destruction of insect pests without discoloring the wool or setting the animal back in general condition. The enormous sale and long reputation of the well-known English Cooper Dip, it is claimed, has been won on its freedom from all harmful effects while being thoroughly efficient in the destruction and prevention of disease and insects.

**HOMESEKERS' EXCURSIONS WEST.**—A large number of our readers will be interested in knowing that the Canadian Pacific has announced the dates of the homeseekers' excursions to Manitoba and the Northwest. They will leave on June 13th, June 27th and July 15th. The return rate to Winnipeg is \$30, and proportionate rates to other points. Tickets are good to return within 60 days. Those who contemplate going on these excursions this year would do well to write to any C. P. R. ticket agent, from whom full information regarding them can be obtained.

**RAISING CALVES WITHOUT MILK.**

How to raise good calves without feeding 25-cent butter-fat is a perennial problem with the dairyman. This spring, especially with the high prices ruling for butter and cheese, whole milk, or even part whole milk, is pretty expensive calf feed, and yet the herds must be kept up, and the man who can solve the problem of economical "calf-culture" and raise a bunch of thrifty youngsters in this season of high prices for dairy products will assuredly find himself extra well repaid by a good demand for a scarce commodity. Economy, however, requires some cheaper substitute for butter-fat, which is found in the old reliable English calf food, Bibby's Cream Equivalent, which may be used either as a substitute for milk entirely after the calf is a few weeks old, or may be used to enrich skim or separator milk. Bibby's Cream Equivalent is sold by leading merchants in nearly every town in Canada. Canadian representative, Wm. Rennie, Toronto; distributing points: Toronto, Montreal, Winnipeg, Man., and St. John, N. B.; price \$2.25 per 50-lb. bag, or \$4 per cwt. Sold on condition that cash will be returned if satisfactory results are not obtained. See advertisement on another page, it is suggestive.

**GOSSIP.**

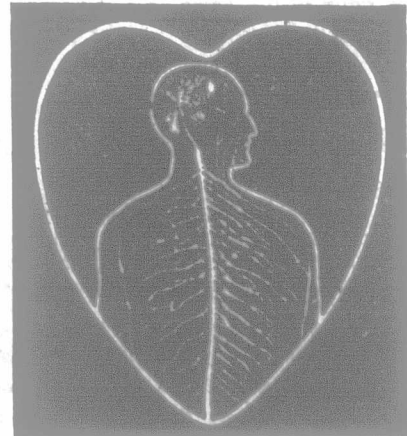
Mr. Hugh Thomson, St. Mary's Ont., makes a change in his advertisement of Shorthorns in this issue, in which he offers a good imported bull. Write him for price and particulars.

Messrs. J. & W. Russell, Richmond Hill, Ont., advertise for sale 7 young Shorthorn bulls fit for service, bred in the herd which has such a brilliant record of prizewinning at the Chicago World's Fair and at Canada's leading exhibition at Toronto. The Yonge Street electric cars from the City of Toronto pass by the farm, which is only about an hour's run from the city.

**THE HORSE.**

A new and up-to-date book, entitled The Horse, written by Professor I. P. Roberts, late Dean and Director of the College of Agriculture, of Cornell University, author of Fertility of the Land and other useful works on Agriculture, has just been published by the Macmillan Company, and is being sold by their agents, Morang & Co., Toronto, or may be ordered through this office; price, \$1.40, postpaid. It is a very comprehensive and exceedingly practical and well-written treatise of 400 pages in 25 chapters on the history, breeding, feeding, shoeing and management of horses of the principal breeds and classes, with numerous well-executed illustrations, and with appendices dealing with the problems of feeds and intelligent feeding, and a list of secretaries of the various stud, herd and flock books in America. This will be found to be a very instructive and helpful work for farmers and farmers' sons, and is cheap at the price at which it is sold.

**MILBURN'S  
 Heart and Nerve Pills.**



Are a specific for all diseases and disorders arising from a run-down condition of the heart or nerve system, such as Palpitation of the Heart, Nervous Prostration, Nervousness, Sleeplessness, Faint and Dizzy Spells, Brain Fag, etc. They are especially beneficial to women troubled with irregular menstruation.

Price 50 cents per box, or 3 for \$1.50. All Dealers, or The T. Milburn Co., Limited, Toronto, Ont.

**R. A. & J. A. WATT**

Salem P.O. Elora Station, C.P.R. and G.T.R. Telephone in house.

Our herd of seventy-five head of Scotch-bred

**SHORTHORNS**

compares favorably with the best. Inspection and correspondence invited.

**ROWAN HILL STOCK FARM**

**SHORTHORNS**

Greengill Archer (Imp.) 45184, at head of herd. Present offering: Young cows and heifers at reasonable prices. Correspondence or inspection invited.

A. DUNCAN & SONS, Carleton Place, Ont.

**SHORTHORNS**

Of choice quality and breeding. Present offering: One 3-year-old bull, sired by Blythson Champion (Imp.), and a few females of different ages. Inspection of herd invited.

N. S. ROBERTSON, o Arnprior, Ont.

**8 First-Class Young Bulls**

And an excellent lot of cows and heifers. Scotch cattle, imp. and home-bred. Rich man's cattle at poor man's prices. Also high-class Yorkshire and Berkshire swine.

DAVID MILNE, Ethel, Ont., Huron Co.

**Ridgewood Stock Farm  
 SCOTCH SHORTHORNS.**

Present offerings: Blythson Ruler = 45226, sire (Imp.) Chief Ruler = 45165, dam (Imp.) Missie 159th = 34154 =; young stock, either sex. R. C. ATRELL, GODERICH, ONTARIO.

Breeder of Shorthorns, Shire and Hackney Horses.

**THREE IMPORTED**

**Shorthorn Bulls**

Four imported cows in calf, home-bred cows, heifers and young bulls, all of straight Scotch families. Four imported Shropshire rams, eight imported ewes and any number of Shropshire and Cotswold ram and ewe lambs of the highest class, is what I can show you now, and all will be priced at moderate prices.

Robert Miller, Stouffville, Ont. Representative in America of Alfred Mansell & Co., Shrewsbury, England.

**YOUNG SHORTHORNS** for sale, either sex, got by that grand Golden Drop show bull, Kinellar Stamp (Imp.). Inquiries cheerfully answered.

SOLOMON SHANTZ, Haysville P. O., Plum Grove Stock Farm. o Baden Sta.

J. A. Lattimer, Box 16, Woodstock, Ont.

**SCOTCH SHORTHORNS**

Choice females for sale at all times. Inspection of our herd is invited.

**SHORTHORNS & CLYDESDALES**

Present offerings, a few young bulls, sired by Prince of Bann (Imp.), also one registered Clydesdale stallion, rising 3 years. Prices low, considering quality.

DAVID HILL, Staffs, Ont.

**SPRING VALLEY SHORTHORNS**

Good bulls at reasonable prices, out of good Scotch cows, and by such bulls as Bapton Chancellor (Imp.), Scottish Beau (Imp.), Nonpareil Archer (Imp.), Clipper Hero, etc. For further particulars, apply to KYLE BROS., Ayr, Ont.

# Make More Milk Money.

If you knew a way by which you could double your profits from your milch cows and at the same time save yourself a lot of hard work, you'd want to adopt it at once. Well the

## Empire Cream Separator

will do that thing for you. We want to show you how and why. It's the simplest separator made; has few parts; nothing to get out of order; turns easily; skims perfectly; is easily cleaned; is absolutely safe; lasts longer; gives better satisfaction and makes more money for you than any other—all because it is so well and so simply built. No separator has ever made such a record in popularity and sales—because every man who buys it is satisfied. May our agent call and show you how it works? Don't buy a separator until you have investigated the Empire.



SEND FOR CATALOGUE. Let us send you our new Catalogue. Ask for book No. 11.

Empire Cream Separator Co. of Canada, Ltd., Toronto, Ont.

### TROUT CREEK

## SHORTHORNS

Bulls in service: Gold Cup (imp.), bred by W. Duthie, and Ardleten Royal (imp.), a Marr Princess Royal

James Smith, Manager. W. D. FLATT, Hamilton, Ont.

### SHORTHORNS and CLYDESDALES

Spicy Count (imp.), 5 thick, fleshy bulls, 15 months old; a few heifers and 6 splendid Clydesdales; 3 mares registered. All young.

JAS. MCARTHUR  
Pine Grove Stock Farm. GOBLE'S, ONT.

### Shorthorns and Cotswolds

Six bulls ready for service, sired by Merry Hampton, imp., 36098, 156715, and from thick-fleshed, heavy-milking dams; also heifers by same sire. Prices reasonable for early delivery. For particulars, write to

JOHN SOCKETT, Rockwood Stn. & P. O.

### SHORTHORNS FOR SALE

Six young bulls, 20 cows and heifers, by that grand bull, sire of unbeaten Fair Queen and sister Queen Ideal, first-prize senior heifer calf at the International, 1904.

H. K. FAIRBAIRN, Thedford, Ont.

### SHORTHORNS FOR SALE

Four young bulls, including 22-months son of Mayflower 3rd, champion female at Winnipeg and Toronto, 1904; also a few good heifers of same family. Primrose Day (imp.) at head of herd.

Wm. McDERMOTT, Living Springs, Ont., Vergus Station.

Shorthorns—We have for sale several young bulls ready for service, sired by Royal Duke, he by Royal Sailor (imp.). Also a few heifers and cows, bred to Wandering Count, by Wanderer's Last (imp.).

J. E. McCALLUM & SONS, Fona Stn., Ont.

Scotch Shorthorns—Three young bulls. One by Scottish Beau, imp., dam Lady Ythan 5th, imp.; 2 others by Invincible, second prize, Toronto, 1904; also heifers of like breeding and quality.

H. OKE, Alvinston, Ont.

### SHORTHORNS and DORSETS

Write for what you want. Also a number of young Yorkshire sows for sale.

D. Bartlett & Sons, Smithville, Ont.

### WILLOW BANK STOCK FARM

Established 1855

Large and old-established herd of SHORTHORNS. Good milking qualities. Splendid offering of either sex. Scotch and Scotch-topped. JAMES DOUGLAS, Caledonia, Ont.

### FLETCHER SHORTHORNS

Our herd of breeding cows, both imported and home-bred, are of the most fashionable Scotch families. Among the really good sires which have been used are Spicy Robin 28259, winner of 3rd prize at Dominion Exhibition, Toronto, and Joy of Morning (imp.) 32070, winning 1st prize at same exhibition, 1901. Stock of either sires for sale. GEORGE D. FLETCHER, Blenheim, C. P. R.

### SCOTCH SHORTHORNS

85 head in our herd.

The choice breeding bull, Imp. Green-gill Victor, a Princess Royal, bred by W. S. Marr, heads herd. We have for sale a dozen young bulls of the strong-back, deep-body and short-leg kind; some from our best imp. cows. Also 20 imp. females and 20 home-bred females, all of well-known Scotch families, either in calf or with calf at foot.

R. MITCHELL & SONS, Nelson P. O., Ont.; Burlington Junction Sta.

### A. EDWARD MEYER

Box 378, Guelph, Ont.

### Breeder of High-class Scotch Shorthorns

Princess Royals, Brawith Buds, Villages, Nonpareils, Minas, Bessies, Claretts, Urys and others. Herd bulls, imp. Chief of Stars (72215), 145417, -32076-, Lovely Prince -50757-. Some choice yearling heifers for sale. Correspondence solicited. Visitors welcome. Telephone in house.

### 12 SHORTHORN BULLS

20 Cows and Heifers

Good ones, Scotch-bred, at moderate prices. Catalogues on application.

H. SMITH, Exeter, Huron Co., Ont.

Station adjoins farm. Long-distance telephone in residence.

### MOUNTAIN VIEW SHORTHORNS

Imported and home-bred, male and female, prize and sweepstakes winners, various ages. Anything for sale.

S. J. McKNIGHT, Epping P. O., Thornbury Station.

### THOS. MERCER, Box 33, Markdale, Ont.

Breeder and importer of

CLYDESDALE HORSES, SHORTHORN CATTLE and YORKSHIRE PIGS.

Car lots a specialty.

### High-class Shorthorn Cattle and OXFORD CLASS DOWN SHEEP

Present offerings: Young stock, either sex. For prices and particulars write to

JAS. TOLTON & SON, Walkerton, Ont.

### ELMHEDGE SCOTCH SHORTHORNS

Stamfords, Minas, Nonpareils, Crimmon Flowers, Marr Floras and Lavinias. Our herd will stand comparison with any. We reserve nothing; 45 head of both sexes, all ages, for sale.

O. James Bowes, Strathairn P. O., Meaford, Ont.

### Wm. Grainger & Son, Hawthorn Herd of SHORTHORNS, Aberdeen Hero (imp.) at head of herd.

Two grand young bulls by Prince Misty -37861-. Also a few females.

Londesboro Sta. and P. O.

### Shorthorn Bull—Provoct = 37865 =, 4 years old, in prime condition.

sure and active; a grand stock bull. Will sell or exchange for another. RICHARD WILKIN Springfield Stock Farm. o Harriston, Ont.

### First-class Shorthorns—Young cows and heifers of fashionable breeding. Also Shropshires of different ages.

Write for prices, etc., to T. J. T. COLE, Bowmanville Stn., G. T. R. o Tyrone P. O.

### MAPLE LEAF STOCK FARM

4 Choice Young Bulls For Sale.

Also some cows and heifer and prize-winning Berkshire pigs. Terms reasonable.

ISRAEL GROSS, Alma P. O. & Sta., G. T. R.

### SCOTCH SHORTHORNS FOR SALE

Two young bulls 12 and 16 months old, both royally bred; also fifteen heifers and cows, most of them in calf to a son of Lord Gloucester, No. 26395.

DR. T. S. SPROULE, Cedarvale Farm, Markdale P. O. and Station.

### Forest Hill Stock Farm Shorthorns—3 choice bulls of serviceable age, and a few good heifer calves.

For particulars apply

G. W. KEAYS, Hyde Park P. O., Ont.

### QUESTIONS AND ANSWERS. Veterinary.

#### CHRONIC INDIGESTION.

For two weeks my horse has had semi-diarrhoea, is dumpy, and occasionally suffers pain. J. McK.

Ans.—There is probably some irritant in the bowels which is causing the trouble. It is dangerous to allow such cases to go without treatment, as the condition is liable to assume the form of acute indigestion at any time, and probably cause death. It is always better to have a veterinarian give personal attention to such cases. If you decide to treat yourself, give him 1 1/2 pts. raw linseed oil, and after he ceases purging, give 1 dram each of gentian, nux vomica, and sulphate of iron three times daily in 1/2 pint cold water as a drench. Feed on well-saved timothy hay and whole oats. Do not give any bran, boiled food or roots until he recovers his normal condition. V.

#### ECZEMA.

Mare breaks out in little pimples every spring. They discharge a little and then dry up. When the cold weather comes she gets all right. I worked another horse in her harness, and he appears to be getting it. C. M. V.

Ans.—This is eczema, and is not considered contagious, but if some of the effusion came in contact with a raw surface on another horse it would probably produce a local irritation. Give the mare a purgative, of 8 drams aloes and 2 drams ginger. Follow up with 1 oz. Fowler's solution of arsenic three times daily, every alternate week. Wash the surface of the body once weekly with strong, warm, soft-soap suds, applied with a scrubbing brush, and then rub until dry. Dress the affected parts twice daily with corrosive sublimate, 20 grains to a quart of water. V.

#### RINGBONE.

I have a colt 8 1/2 months old. About three months ago a growth appeared on both hind pasterns, just above the hoofs. My veterinarian said they were ring bones, and he fired and blistered them, but they are still growing, and the colt is lame and thin, although it eats well. Do you think they are ringbones? Do such appear on colts of that age, and what is the best treatment? W. A. W.

Ans.—No doubt they are ringbones. In some cases the lameness cannot be cured by ordinary means. Firing and blistering is the proper treatment. I would advise you to have them fired and blistered again, and if the lameness does not disappear in the course of six to eight months, all that can be done is to perform an operation called neurotomy, which consists in removing a section of each nerve supplying the foot. This does not cure the disease, but removes sensation, and as a consequence lameness ceases. We do not recommend the operation, except in cases where other means fail. V.

A gem in its line is the catalogue of Jersey cattle included in the annual sale from the Linden Grove Herd of T. S. Cooper & Sons, Coopersburg, Pa., to be held this year, as usual, on Decoration Day, May 30th. The catalogue contains extended, tabulated pedigrees of 107 animals, nearly, if not quite, all imported direct from the Island of Jersey, or the produce of imported sire and dam, and beautiful of the blood of prizewinners and heavy producing stock.

GET A NOXON MOWER NOW—A firm that has stood the test of time and has had the satisfaction of establishing its name as a household word and its implements as a standard of excellence throughout Ontario and beyond is the Noxon Mfg. Co. Ltd., Ingersoll, Ont. In this issue will be found their advertisement—then read to the public. The goods speak for themselves. The Noxon mowing machine is the queen of the hay-field, and now is the time to get one, before the rush of the season commences. Inspect the machines at the local agents', or write the firm for catalogue and price list.

**Bog Spavin**

Lameness resembles bone spavin, but the bunch is in front of the true hock joint, a little to the inner side, and is soft and yielding, hardening sometimes as the case grows old.

**Fleming's Spavin Cure (Liquid)**

is a special remedy for the soft and semi-solid bunches that make horses lame—Bog-Spavin, Thoroughpin, Splint, Curb, Capped Hock, etc. It isn't a liniment to bathe the part, nor is it a simple blister. It is a remedy unlike any other—doesn't irritate and can't be limited. Easy to use, only a little required, cures the lameness, takes the bunch, leaves no scar. Money back if it ever fails. Write for Free Horse Book before ordering. It tells all about this remedy, and tells what to do for blemishes of the hard and bony kind.

FLEMING BROS., Chemists,  
45 Front Street, West, Toronto, Can.

Present Offering of  
**SHORTHORNS AND SHROPSHIRE**  
(Imp.) Scotland's Pride = 30098 =, (79007), 5 years old, a Cruickshank Clipper, by the great sire, Star of Morning.  
One junior yearling show bull in show form, a good one.  
4 bulls, from 14 to 16 months old, from imp. sires and imp. or pure Scotch dams.  
One senior yearling show heifer, a winner, from imp. sire and dam.  
Imp. and home-bred cows and heifers, all ages.  
25 yearling Eropshire rams and 20 yearling ewes.  
Carloads of French bulls furnished on short notice. For catalogue and prices, write  
W. G. PETTIT & SONS, o Freeman, Ont., Burlington Jct. Station, Telegraph, Telephone.

### 3 SCOTCH-TOPPED Shorthorn Bulls

Must be sold immediately. For particulars write or come and see  
WM. D. DYER, - Columbus, Ont.  
Stations: Brooklin, G.T.R.; Myrtle, C. P. R.

### CLEAR SPRING STOCK FARM HIGH-CLASS SHORTHORNS

A specialty. Present offerings young bulls and heifers from first-class stock. Correspondence or inspection of herd invited.

JAS. BROWN, Thorold Sta. & P. O.

### 1864 - HILLHURST FARM - 1905

Five registered

### SHORTHORN BULLS

ready for service; also bull calves, Scotch-topped, from good milking families, for sale at low prices. Write for catalogue and particulars. Inspection invited.

JAS. A. COCHRANE, Hillhurst Station, Compton Co., P. O.

### Belvoir Stock Farm

SHORTHORN BULLS, various ages; imported and home-bred, by imp. Gay Lothario, a Cruickshank Lavender.

CLYDE STALLION, 2 years old; sire imp., dam a winner, grandam 1st Highland Show.

YORKSHIRES—Sows and boars, various ages; not aking. Three imp. boars and 5 imp. sows to select from, and their progeny. Prices right. Also honorable dealing.

RICHARD GIBSON, Delaware, Ont.

### SCOTCH-TOPPED SHORTHORNS

Nine young bulls ready for service; also several heifers by Scottish Baron 40421 (imp.), for sale reasonable. Come soon and get first choice.

H. GOLDING & SONS, Thamesford P. O. Stations, Thamesford, C. P. R.; Ingersoll, G. T. R.

### IMPERIAL STOCK FARM HOLSTEINS.

For Sale: Four bull calves, 5 months old, whose sire's three nearest dams average 21.79 lbs. of butter in 7 days. Also young bulls by the sire of first-prize herd at London.

W. H. SIMMONS, New Durham, Ont.

### HOLSTEIN-FRIESIANS at RIDGEDALE FARM

6 bull calves for sale, from 3 to 9 months old, bred from rich milking strains. Special prices to quick buyers. Port Perry, G. T. R., and Myrtle, C. P. R., Shipping Stations, Ontario County. o R. W. Walker, Utica P. O., Ont.

### HOLSTEINS and TAMWORTHS

One choice yearling bull, excellent quality and breeding. Will be sold at a bargain to a quick buyer; also a few bull calves. One boar ready for service. Young pigs ready to wean. Write at once for bargains.

A. C. HALLMAN, Waterloo Co., Breslau, Ont.

**BARREN COWS CURED**

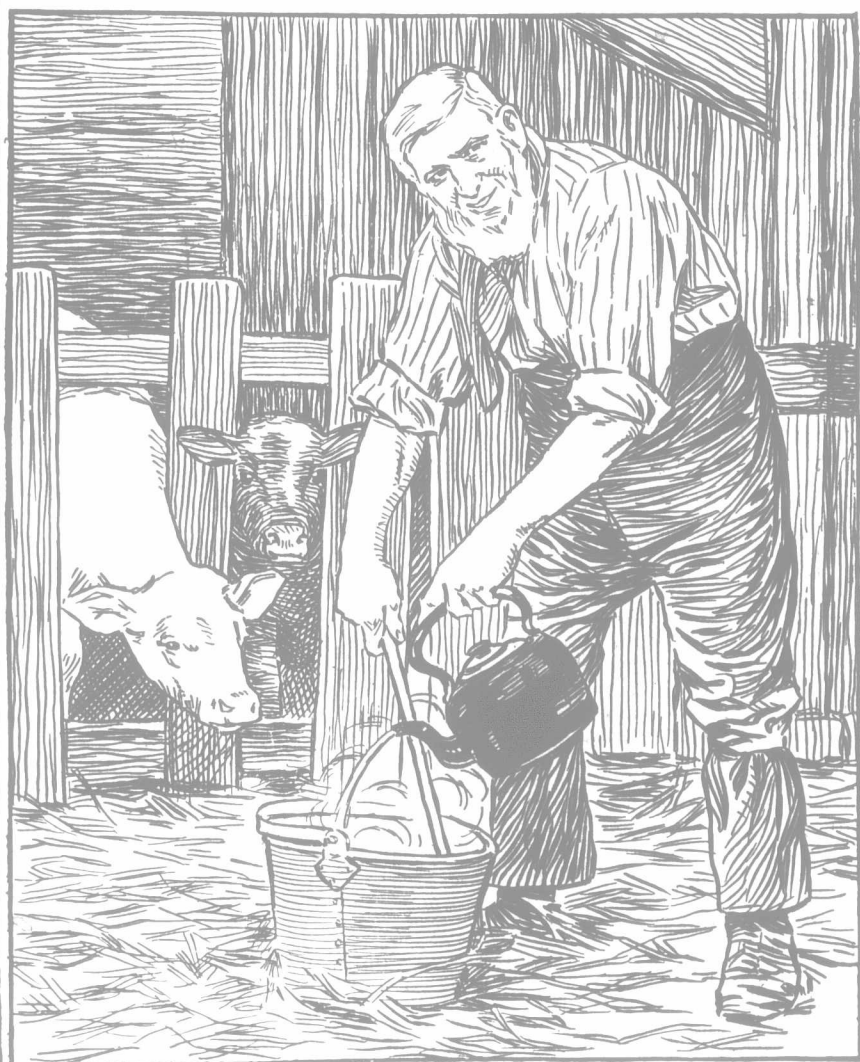
PAMPHLET FREE

MOORE BROS., S.S., ALBANY, N.Y.

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



CALVES ALL LIKE "Cream Equivalent"



"This 'Cream Equivalent' do smell beautiful—I almost wish I was a calf."

BIBBY'S UNRIVALLED CALF MEAL CREAM EQUIVALENT

For raising calves without any milk whatever after a few weeks old, and to enrich skim or separated milk when these products are available. No other production does the work with the same effectiveness.

Note the conditions on which this meal is sold: Cash returned if satisfactory results not obtained. Price, 50-lb. bag, \$2.25; 100 lbs., \$4.00.

MADE IN ENGLAND—SOLD IN NEARLY EVERY TOWN IN CANADA—BY LEADING MERCHANTS. Canadian Representative: WM. RENNIE, TORONTO.

Distributing Points—Toronto, Montreal, Winnipeg, and St. John, N.B.

We want you to remember that HOLSTEIN COWS

owned by me (formerly at Brookbank Stock Farm, Currie's) won all sorts of honors in milk tests at Toronto, Ottawa and Guelph (6 years), and among many other prizes in the show-ring, including sweepstakes at Toronto and Pan-American in competition with the best in the world. Our herd is always improving. We have now 5 cows whose official test average 22.4 lbs. butter in 7 days, 10 cows whose official test average 20.4 lbs. butter in 7 days, 15 (3 yrs. and up) whose official test average 19.6 lbs. butter in 7 days, 10 (3 and 4 yrs.) whose official test average 17 lbs. butter in 7 days, 10 heifers (average age 26 mos.) whose official test average 11 lbs. butter in 7 days. That is our idea of a dairy herd, and the kind of stock I handle. A few good young bulls, 1 to 13 mos., for sale.

GEO. BICE, Annandale Stock Farm, Tilsonburg, Ont.

Lyndale Holsteins

Over 50 head to choose from. A number of young cows and heifers for sale. Six young bulls from 8 to 11 months old.

BROWN BROS., Lyn, Ont.

Woodbine Holsteins

Herd headed by Sir Mechtildes Posch, whose four nearest ancestors average 25 lbs. of butter in 7 days in official tests. Cows, heifers and young bulls, sired by Homestead Albino Paul DeKol, a grandson of DeKol 2nd Paul DeKol, sire of 41 A. R. O. daughters, the greatest sire of the breed. Write for extended pedigrees and prices.

A. KENNEDY, AYR, ONT.

MERTON LODGE HOLSTEINS



Are prize-winners as well as producers.

Forty head to select from. Such great sire as Sir Hector De Kol at head of herd. Present offerings: Young bulls, cows and heifers, all ages. Am booking orders for our entire crop of spring calves with gilt-edge pedigrees. We quote prices delivered at your station. Safe arrival guaranteed.

H. E. GEORGE, CRAMPTON, ONT.

J. A. CASKEY Madoc, Ontario.

BULL CALVES

FOR SALE, sired by Count Echo De Kol, a sire of Record of Merit cows, and out of excellent dams.

Maple Glen Holsteins—Special offering: Two bulls, fit for service, one from a 70-lbs.-a-day dam. A choice pair of bulls, 9 months old, one from the test cow Juanita Sylvia, full sister of Carmens. The other from a first-prize Toronto winner. Also a few females.

O. J. GILROY & SON, Glen Buell, Ont.

Maple Grove Holsteins—In official tests they stand 1st for cow, 1st for 3-year-old, 1st 2-year-old and 1st under 2 years old. Special inducements are offered in high-class bulls to quick purchasers. For particulars address,

H. BOLLERT, Cassel, Ont.

GOSSIP.

ONTARIO WOMEN'S INSTITUTE MEETINGS.

Division I.

Mr. Geo. A. Putnam, Superintendent of Farmers' Institutes in Ontario, announces the following Women's Institute meetings at which a great variety of interesting subjects will be discussed. Following is the list of meetings and names of delegates, places of meeting and dates:

Div. 1.—Speakers: Miss Laura Rose, Guelph (May 24th to June 23rd); Miss Bertha Duncan, Emery (May 24th to June 2nd); Miss A. Delaney, 89 Marion St., Toronto (June 5th to 23rd). Clonbrassil, May 24; York, May 25; Canfield, May 26; DeCewsville, May 27; Selkirk, May 29; Cheapside, May 30; Nanticoke, May 31; Simcoe, June 1; Scotland, June 2; Mohawk, June 5; Burford, June 6; Cathart, June 7; Tranquility, June 8; St. George, June 9; Burlington, June 10; Appleby, June 13; Zimmerman, June 14; Palermo, June 15; Postville, June 16; Milton, June 19; Campbellville, June 20; Nassagaweya, June 21; Georgetown, June 22; Acton, June 23.

Div. 2.—Miss Lillian D. Gray, 650 Bathurst St., Toronto (May 25th to June 2nd); Miss Bertha Duncan, Emery (June 3rd to June 23rd); Dr. Anna Backus, Aylmer (May 25th to June 23rd).

West Flamboro, May 25; Westover, May 26; Rockton, May 27; Lynden, May 29; Jerseyville, May 30; Caledonia, May 31; Glanford, June 1; Hannon, June 2; Hnbrook, June 3; Black Heath, June 5; Taplestown, June 6; Winona, June 7; Stony Creek, June 8; Grimsby, June 9; Smithville, June 12; Beamsville, June 13; Beamsville, June 13; Campden, June 14; Campden, June 14; Jordan Station, June 15; Jordan Station, June 15; Wellandport, June 16; Winger, June 17; Marshville, June 19; Sherkstone, June 20; Ridgeway, June 21; Stevensville, June 22; Allanburg, June 23.

Div. 3.—Mrs. D. McTavish, North Bruce; Mrs. Geo. McCoag, Lake Charles.

Islington, May 25; Weston, May 26; Fairbank, May 27; Elia, May 29; Maple, May 30; Woodbridge, May 31; Kleinburg, June 1; Ballycroo, June 2; Cookstown, June 3; Thornton, June 5; Churchill, June 6; Minesing, June 7; Lafontaine, June 8; Wyebridge, June 9; Vasey, June 10; New Lowell, June 12; Stayner, June 13; Nottawa, June 14; Duntroon, June 15; Singhampton, June 16; Creemore, June 19; Everett, June 20; Horning's Mills, June 21; Honeywood, June 22; Shelburne, June 26; Camilla, June 27; Laurel, June 28.

Div. 4.—Miss Blanche Maddock, Guelph; Mrs. W. W. Bates, Broad Ripple, Ind.

Meaford, June 1; Annan, June 2; Kemble, June 3; Kilsyth, June 5; Desboro, June 6; Chatsworth, June 7; Massie, June 8; Owen Sound, June 9; Allenford, June 10; Tara, June 12; Port Elgin, June 13; Gilhe's Hall, June 14; Paisley, June 15; Glamis, June 16; Ripley, June 17; Kincardine, June 19; Flesherton, June 21; Maxwell, June 22; Vandeleur, June 23; Kimberley, June 24; Heathcote, June 26; Ravenna, June 27.

Div. 5.—Miss Millar, Guelph; Miss Maddock (May 24th to May 30th); Miss S. A. Morris (May 31st to June 23rd).

Holstein, May 24; Dromore, May 25; Durban, May 26; Hanover, May 27; Elmwood, May 29; Walkerton, May 30; Belmore, May 31; Mildmay, June 1; Teeswater, June 2; Holyrood, June 3; Harriston, June 5; Clifford, June 6; Drew, June 7; Palmerston, June 8; Moorefield, June 9; Rothsay, June 10; Drayton, June 12; Hollen, June 13; Glenallan, June 14; Winfield, June 15; Alma, June 16; Belwood, June 17; Marsville, June 19; Erin, June 20; Ospringe, June 21; Coningsby, June 22; Hillsburg, June 23.

Div. 6.—Mrs. Jean Joy, 317 Brunswick Ave., Toronto; Miss L. Shuttleworth, Guelph, Ont.

Bright, May 24; Currie, May 25; Vandear, May 26; Burgessville, May 27; Norwich, May 29; Otterville, May 30; Springfield, May 31; Tillsonburg, June 1; Brownsville, June 2; Mount Elgin, June 3; Beachville, June 5; Kintore, June 6; Tavistock, June 7; Staffa, June 8; Kirkton, June 9; Exeter, June 10; Bayfield, June 12; Clinton, June 13; Holmerville, June 14; Goderich, June 15;

(Continued on next page.)

Treated by Three Doctors for a Severe Attack of Dyspepsia,

Got No Relief From Medicines, But Found It At Last In Burdock Blood Bitters.

Mrs. Frank Hutt, Morrisburg, Ont., was one of those troubled with this most common of stomach troubles. She writes:—"After being treated by three doctors, and using many advertised medicines, and receiving no benefit, I gave up all hope of ever being cured. Hearing Burdock Blood Bitters so highly spoken of, I decided to get a bottle, and give it a trial. Before I had taken it I began to feel better, and by the time I had taken the second one I was completely cured. I cannot recommend Burdock Blood Bitters too highly, and would advise all sufferers from dyspepsia to give it a trial."

Jerseys—Bull calf for sale, from Dido of Fine Ridge, a granddaughter of One Hundred Per Cent, and sired by Ida's Sonny, a son of Canada's John Bull the 5th Junior. Also Barred Rock eggs for sale, \$1 per setting of 13. WILLIAM WILLIS, o Newmarket, Ont.

140 - JERSEYS - 140 to choose from. 74 First Prizes, 1904. We have what you want, male or female. B. H. BULL & SON, Brampton, Ont. Phone 62.

SHANNON BANK STOCK FARM FOR AYRSHIRES AND YORKSHIRES Young stock of both sexes for sale from imported stock.

W. H. TEAN, Cedar Grove, Ont.

AYRSHIRE BULLS

Two 13-months-old bulls, choice individuals, from grand milking cows, at very much reduced prices. Also an extra lot of last fall bull calves, away down in price if taken soon.

W. W. BALLANTYNE, Stratford, Ont.

FOR SALE: HIGH-CLASS AYRSHIRES

Special offering for next 30 days: Two cows at \$65 each; one bull calf, \$35; one yearling bull, \$45; also a few heifer calves, from \$50 to \$40 each, according to age. Poultry—Eggs for hatching, from W. Wyandotte, Silver-gray Dorkings, B. P. Rocks, Houdans and Black Spanish at \$2 per 15 eggs. All correspondence cheerfully answered.

WILLIAM THORN, Trout Run Stock Farm, Lynedoch, Ont.

AYRSHIRES FROM A PRIZEWINNING HERD

Hover-a-Blink, one of my stock bulls, and heifers for sale at reasonable prices. For particulars, etc., write to W. M. STEWART & SON, Campbellford Sta. o Henle F.O., Ont.

Springbrook Ayrshires are heavy milkers and high testers. For sale: Three bulls, 9 months old; 2 bull calves, dropped in January last; also females of all ages.

W. F. STEPHEN, P. O. box 101, o Hanington, Que.

MAPLE CLIFF DAIRY AND STOCK FARM

Breeders of Clydesdale Horses, Ayrshire Cattle, Berkshire and Tamworth Pigs. Young stock for sale at all times.

B. BEAD & CO., o Miltonburg, Ont. Farm adjoins Central Experimental Farm.

MEADOWSIDE FARM

Ayrshire Cattle, Shropshire Sheep, Berkshire Pigs, R. P. Rocks and B. Orpingtons. Eggs for hatching \$1 per doz. Young stock for sale.

A. E. YULL, o Carleton Place, Ont.

AYRSHIRES, 4 choice bull calves four to six months old; 1 bull fit for service. Females all ages, bred for size and production. DAVID LEITCH, Prices right. Cornwall, G. T. R. o CORNWALL, ONT. Apple Hill, C. P. R.

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

**DORSET HORN SHEEP and SCOTCH SHORTHORNS**

The latter representing the Nonpareil, Miss Ramsden, Missie and Gloster families exclusively, and the former comprising more Royal winners and more St. Louis prizewinners than any other flock in the world. Stock for sale always on hand.

John A. McGillivray, North Toronto, Ont.

**Lincolns are Booming**

We have only a few more ewe and ram lambs and breeding ewes for sale. We have seven choice young bulls, Scotch topped, and a grand lot of heifers and young cows for sale at reasonable prices. Write or come and see us.

F. H. NEIL & SONS, Telegraph & R. R. station. LUCAN, ONT.

**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 LEVING, Secretary, Lafayette, Indiana, U.S.A.

**Champion Cotswolds**—Silver medal ram, silver medal ewe. Won all first prizes except one at Toronto, 1904. A number of choice ewes, bred to imported ram, for sale. E. F. PASK, Burgessville, Ont.

**SHROPSHIRE**

20 yearling ewes, 45 lambs, both sexes included, from Imp. ram. For particulars write to GEO. HINDMARSH, Ailsa Craig P. O., Ont.

**WOOL**

E. T. CARTER & CO., Toronto.

**NEWCASTLE HERD OF Tamworth Swine and Shorthorn Cattle**

We have for quick sale some 60 head of Tamworth swine, including several boars ready for service. A grand lot of boars and sows, from 3 to 7 months old. A few sows bred and ready to breed. These are nearly all the direct got of Colwill's Choice, our swinestakes boar at Toronto for several years. Also a beautiful Shorthorn bull calf, about ready for service; besides a few choice heifer calves, heifers well forward in calf, and cows in calf. All at moderate prices. All correspondence answered promptly. Write for what you want—we can generally supply you.

COLWILL BROS., NEWCASTLE, ONT.

**TAMWORTHS**

3 fine boars fit for service; also a choice lot of both sexes from 3 to 4 months old, of good breeding stock. Prices reasonable.

Glenairn Farm, Jas. Dickson, Orono, Ont.

**TAMWORTHS AND HOLSTEINS**

We have for quick sale a choice lot of spring pigs from prizewinning sows. A few boars fit for service and one yearling boar. Also a choice lot of bull calves, from 1 to 6 months old.

Bertam Hoskin, The Gully P. O., Grafton Station.

**ENGLISH BERKSHIRES.**

Her Grace the Duchess of Devonshire's Berkshire Herd. Winners of 102 awards in 1904, including champion against all breeds in carcass competition, London Fat Stock Show. The breeding sows are sired by the champion boar, Baron Kitchener 8403. Polegate Deoxy, Polegate Dame, Polegate Dawn—winners in England, Canada and United States—were exported from this herd. For prices and particulars apply to: Compton Estate Office, Eastbourne, or to F. A. Walling, 7 Cavendish Cottages, Eastbourne, Sussex, England.

**LARGE ENGLISH BERKSHIRES**

A number of nice young sows, bred to my imported boar, which are due to farrow in April and May. Also a few boars ready for service.

Have some nice things three, four and five months old, of both sexes. My herd won all the champion prizes at Dominion Exhibition in 1904.

WILLIAM WILSON, Box 191, Brampton, Ont.

**RIVER VIEW FARM**

ROBERT CLARKE, Importer and Breeder of

**Chester White Swine**

Pigs shipped not akin to each other. For price and particulars, write

41 COOPER STREET, OTTAWA, ONT.

**IMPROVED LARGE YORKSHIRES**

Pigs six to nine weeks old, from imported stock. Pairs and trios not akin. Sows from four to six months old.

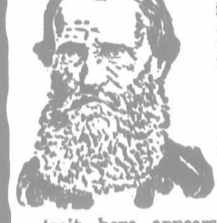
L. ROGERS, Emery, Ont.

**HILLCREST HERD OF ENGLISH BERKSHIRES**

JOHN LAHMER, VINE P. O.

**RUPTURE**

Sufferers will rejoice to learn that Medical Science has at last triumphed in producing a positive Cure for this agonizing and dangerous ailment. The results are astonishing to the Medical Profession as well as all Ruptured. Cases that have defied human ingenuity have yielded in a short time. No operation, pain, danger, or time from work to be One of the many remarkable cures performed is that of J. R. Ketcheson, Esq., Justice of Peace, Madoc, Hastings Co., Ont., whose portrait here appears. He is cured at 90 years. To further introduce this wonderful cure



Dr. W. S. Rice, 21 East Queen Street (Block 27) Toronto, Ont., also his book "Can Rupture be Cured?" Write to-day—Sure—Now.

FREE

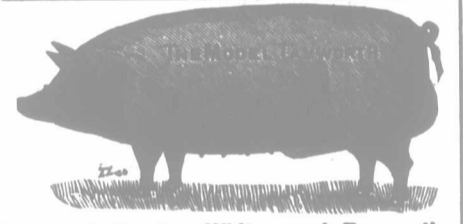
**Asthma**

Cured to Stay Cured

Attacks stopped permanently. Cause removed. Breathing organs and nervous system restored. Symptoms never return. No medicines needed afterwards. 21 years of success treating Asthma and Hay Fever. 68,000 patients. Book 51¢ Free. Very interesting. Write P. HAROLD HAYES, Buffalo, N.Y.

**CANCER**

R. D. Evans, discoverer of the famous Cancer Cure, requests any one suffering with cancer to write him. Two days' treatment will cure any cancer, external or internal. No charge until cured. R. D. EVANS, Brandon, Man. o



**Improved Chester Whites and Tamworths**

From this herd have been winners at leading exhibitions of Ontario and Quebec for a number of years. New importations, direct from England, will arrive in May. We have for sale choice lot of young sows, bred; also boars, 3 to 4 months old. Am booking orders for spring pigs. Pairs furnished not akin. Express charges prepaid. Pedigrees and safe arrival guaranteed.

H. GEORGE & SONS, Crampton, Ont.

**LARGE ENGLISH YORKSHIRES**



Pigs of the most approved type, of both sexes, all ages, for sale at all times. We have more imported animals in our herd than all other breeders in Canada combined. We won more first prizes at the large shows this year than all other breeders combined. We won every first but one and all Silver medals and Bacon prizes at Toronto and London and at St. Louis we furnished all the first-prize hogs in the breeding classes except two; also supplied both champions and grand champions. Prices reasonable.

D. C. FLATT & SON, MILLGROVE, ONT.

**Oakdale Berkshires**

Of the largest strains. Imported fresh from England. The produce of these and other noted winners for sale reasonable. Let me book your order for a pair or trio not akin.

L. E. MORGAN, Milliken Stn. and P. O.

**GLENBURN HERD OF YORKSHIRES**

winners of gold medal three years in succession, offers for sale until New Year's a number of fine young sows and boars, from 3 to 4 months old, at \$12 each.

DAVID BARR, JR., Box 3, Renfrew P. O.

For Sale—Ohio Improved Chester Whites, the largest strain, oldest established registered herd in Canada; young sows in farrow; choice young pigs, six weeks to six months old; pairs not akin; express charges prepaid; pedigrees and safe delivery guaranteed. Address: E. D. GEORGE, Putnam, Ont.

Now is the time to book your orders for young pigs for May and June delivery. A few good young boars on hand.

**GOSSIP.**

(Continued from page 801.)

Constance, June 16; Ethel, June 17; Molesworth, June 19; Bluevale, June 21; Gorrie, June 21; Fordwich, June 22; Milverton, June 23; Hampstead, June 24; Wellesley, June 26; Winterbourne, June 27.

Div. 7.—Miss Gertrude Gray, 650 Bathurst St., Toronto; Mrs. Helen Wells, 116 Onandaga Ave., Syracuse, N. Y.

Haysville, May 25; New Dundee, May 26; Ayr, May 27; Galt, May 29; Branchton, May 29; Hespeler, May 30; Blair, May 30; Strasburg, May 31; Paisley Block, June 1; Aberfoyle, June 2; Marden, June 3; Rockwood, June 5; Everton, June 6; Arthur, June 7; Kenilworth, June 8; Damascus, June 9; Hereward, June 10; Alton, June 12; Bolton, June 13; Caledon East, May 14; Cheltenham, June 15; Brampton, June 16.

Div. 8.—Miss Isabel Rife, Hespeler; Miss Mabel Govenlock, Seaforth (May 30th to June 24th).

Springfield, May 30; Mt. Salem, May 31; Copenhagen, May 31; Sparta, June 1; Aylmer, June 2; Dutton, June 3; Highgate, June 5; Chatham, June 6; Cedar Springs, June 7; Port Alma, June 8; Coatsworth, June 9; Wheatley, June 10; Quinn, June 12; South Woodside, June 13; Essex, June 14; Wyoming, June 16; Brigden, June 17; Appin, June 19; Strathroy, June 20; Coldstream, June 21; Beechwood, June 22; Ailsa Craig, June 23; Parkhill, June 24.

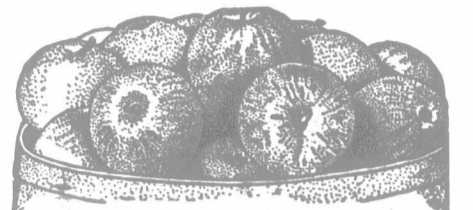
Div. 9.—Mrs. Colin Campbell, Goderich; Miss Gertrude Carter, Guelph.

Thornhill, May 25; Scarboro Jct., May 26; Agincourt, May 27; Box Grove, May 29; Stouffville, May 30; Uxbridge, June 31; Greenbank, June 1; Little Britain, June 2; Oakwood, June 3; Cambray, June 5; Lindsay, June 6; Fenelon Falls, June 7; Bobcaygeon, June 8; Dunsford, June 9; Omemeo, June 10; Mt. Pleasant, June 12; Ida, June 13; Bethany, June 14; Millbrook, June 15; S. Monaghan, June 16; Garden Hill, June 19; Lakefield, June 20; Springbrook, June 21; Wellman's Corners, June 22; Queensboro, June 23; Tweed, June 24; Marlbank, June 26.

Div. 10.—Mrs. A. Kinney, Grandview; Miss Jessie Hills, 11 Spencer Ave., Toronto.

Whitevale, May 24; Kinsale, May 25; Whitby, May 26; Columbus, May 27; Camborne, May 29; Fenella, May 30; Grafton, May 31; Bowmanville, June 1; Hampton, June 2; Solina, June 2; Castleton, June 3; Brighton, June 5; Wooler, June 6; York Road, June 7; Frankford, June 8; Wallbridge, June 9; Harders, June 12; Bayside, June 13; Foxboro, June 14; Shannonville, June 15; Melrose, June 16; Halston, June 17; Read, June 19; Lonsdale, June 20; Marysville, June 21; Adolphustown, June 22; Conway, June 23; Emerald, June 24; Stella, June 26; Chesterville, June 28; Morewood, June 29; Winchester, June 30; Inkerman, July 1; North Williamsburg, July 3.

Div. 11.—Miss Agnes Smith, Hamilton. Muskoka Falls, June 1; Macaulay, June 2; Parkersville, June 3; Ziska, June 5.



**Better Fruits—Better Profits**

Better peaches, apples, pears and berries are produced when Potash is liberally applied to the soil. To insure a full crop, of choicest quality, use a fertilizer containing not less than 10 per cent. actual

**Potash**

Send for our practical books of information; they are not advertising pamphlets, but special fertilizers, but are authoritative treatises. Sent free for the asking.

GERMAN KALI WORKS, 93 Nassau St., New York.

**ORCHARD HOME HERD (Registered)**

**Large English Yorkshires and Berkshires**

Present offering: A number of good Berkshire sows, due to farrow in August; also choice young stock of both breeds, at reasonable prices. We ship, express paid. Take stock book if not satisfactory. We buy our breeders, therefore best not reserved. Our stock are of the large, smooth bacon type that respond to the feed.

S. D. CRANDALL & SONS, Cherry Valley, Ont.

**SNELGROVE BERKSHIRES**

A number of large, good sows, due to farrow in March and April, and expect to have some choice young pigs for sale. Now is a good time to order. Our herd has won more first prizes at leading shows in Ontario than any other. Pigs of different ages for sale. Write for prices.

SNELL & LYONS, Snelgrove, Ont.

**Woodstock Herd of Large White YORKSHIRES**

Present offering: A choice lot of young sows, bred to Craig-crook Hero, 1st prize boar at Edinburgh, 1904. Also a number of imp.-in-dam boars and sows of September farrow. Pairs supplied not akin. Write

H. J. DAVIS, WOODSTOCK, ONT.

**BERKSHIRES**

Now is the time to buy Berkshire boars. I have 6 registered Berkshires just ready to wean. All of good bacon type. I will sell them cheap if sold before July 1st.

**GLENAVON STOCK FARM,**

W. B. Roberts, St. Thomas Station, Sparta P. O.

**WOODSTOCK HERD OF BERKSHIRES**

Am booking orders for spring pigs, sired by Polegate Doctor (Imp.) No. 78492. Geo. Thomson & Son, Box 1, Woodstock, Ont.

**YORKSHIRES**

for sale, all ages, from imported prizewinning stock, of both sexes. Pairs not akin.

GEO. M. SMITH, Haysville P. O., Ont.

Owing to unforeseen circumstances, I have been unable to supply customers for Poland Chinas. Write me if you want any. For sale, cheap, pure-bred Berkshire boar, registered.

F. S. Wetherall, Rushton Farm, Cookshire, Que.

**Bargains YORKSHIRES during March and April.**

Orders booked for Holsteins calves of both sexes. For description, price, etc., write

R. HONEY, Minster Farm, Brickley, Ont.

**Large English Berkshires.**

For Sale—One choice sow, bred, and a choice lot of both sexes, from 2 to 5 months, all of the bacon type. Special prices for next 30 days.

JOHN HOYES, Jr., Rose Bank Farm, Churehill, Ont.

**CHESTER WHITES**

Good bacon type, and SHROPSHIRE SHEEP. Write for prices.

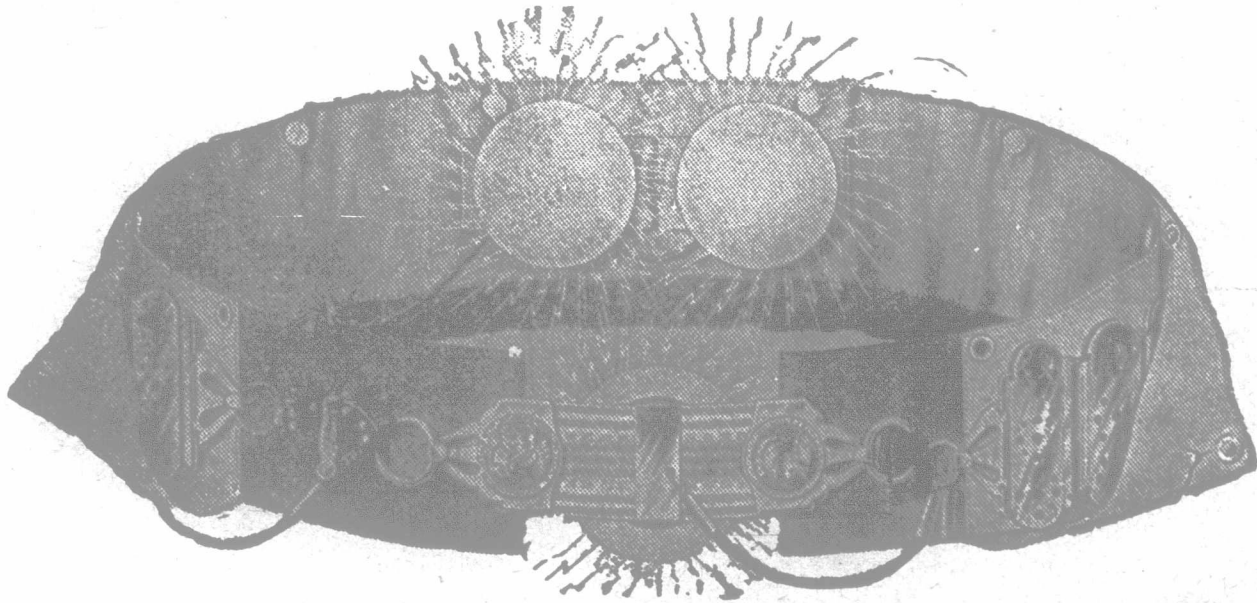
W. E. WRIGHT, Glanworth, Ont.

**English Berkshires**

A fine lot of young pigs of the Sallie and Highclere families. Prices reasonable.

JOHN RACEY, Jr., Lennoxville, Que.

## Varicocele, Weakness and Loss of Vigor Are Quickly and Forever Cured by the Grand Product of Nature **DR. McLAUGHLIN'S ELECTRIC BELT**



### FREE ELECTRIC SUSPENSORY FOR WEAK MEN

This electric suspensory carries the current direct to the weak parts and cures all the weakness of men, varicocele, etc. It develops and expands all weak organs and stops physical decay. No case of failing vigor, varicocele or debility can resist the powerful electric suspensory. It never fails to cure. With Belts for weak men, no charge.

No man should be weak; no man should suffer the loss of that vital element which renders life worth living. No man should allow himself to become less a man than Nature intended him; no man should suffer for the sins of his youth when there is here at hand a certain cure for his weakness, a check to his waste of strength.

Most of the pains, most of the weakness of stomach, heart, brain and nerves from which men suffer are due to an early loss of Nature's reserve power through mistakes of youth. You need not suffer this. You can be restored. The very element which you have lost you can get back, and you may be as happy as any man that lives.

My Electric Belt, with special electric suspensory, will restore your strength. It will check all unnatural drains and give back the old vigor of youth.

CRANBROOK, B.C.

DR. McLAUGHLIN,  
Dear Sir:—I am glad to be able to tell you that the Belt is doing me great service. I have had no losses since I began to wear it, about six weeks ago. I feel stronger in every way. Yours respectfully,  
**CHRISTOPHER WILLIAMS.**

This drain upon your power causes kidney troubles, rheumatism and stomach ailments. You know it's a loss of vitality and affects every organ of the body. Most of the ailments from which men suffer can be traced to it.

I have cured thousands of men who have squandered the savings of years in useless doctoring.

My Belt is easy to use. Put it on when you go to bed; you feel the glowing heat from it; no sting or

It always cures Nervous Disorders, Weak Back, Lumbago, Sciatica, Liver, Kidney and Bowel Troubles, "Come and Go" Pains and that tired feeling after every other treatment has failed. I guarantee a cure if I say I can cure. I don't ask anyone to take chances on my invention. It doesn't cost you anything if it fails. I offer it to you for three months to be used at my risk. I will accept reasonable security as evidence of good faith on your part, and you can

### WEAR IT UNTIL CURED AND PAY ME WHEN THE WORK IS DONE

Now, wouldn't you rather wear my life-giving appliance while you sleep every night, and feel its glowing warmth pouring into you, and feel yourself taking on a new lease of life with each application, than to log your intestines up with a lot of nauseous drugs? Surely! Try me.

Now, let's get together. If you would like to be a stronger, younger man than you are, come to me. Call and I'll give you all the satisfaction you want. If you can't call send this coupon and I will send you, sealed, free, a book that will tell you how I do these things, and of men who would not sell my Belt now for ten times what they paid for it.

**DR. M. S. McLAUGHLIN, 130 Yonge Street, Toronto, Can.**

Dear Sir—Please forward me one of your Books, as advertised.

Name.....

Address.....

**CUT OUT THIS COUPON.**

Office hours—9 a.m. to 6 p.m. Wednesdays and Saturdays to 8.30 p.m.

### BISSELL'S STEEL ROLLER



With the ROLLER BEARINGS and low-draught bracket. It runs like a bird. Light of draught and easy on horses' backs. It will pay any farmer to learn all about the "BISSELL" before ordering a land roller. Send us your name and address for full particulars.  
**T. E. BISSELL, DEPT. W., ELORA ONT.**  
None genuine without the name "Bissell."



### WIDE-TIRE IRON WHEELS FOR WAGONS.

Made any height, any width of tire, and to fit any axle. Just the thing for the farm, are stronger, lighter and cheaper than wooden wheels.



### OUR QUEEN CITY HANDY WAGON

with iron wheels and wide tires. Is low and convenient for farm and general work. Made by skilled workmen and of the best material. Guaranteed to carry five thousand pounds. Write for catalogue with full description of both wheels and wagon.

**DOMINION WROUGHT IRON WHEEL CO.**  
ORILLIA, ONT. LIMITED.  
H. F. ANDERSON & CO., Winnipeg, Agents for Manitoba and the N.-W. T., always carry a full stock of our "Handy Wagons."

### GOSSIP

#### WHY THE GRAIN GROWERS ARE UP AGAINST.

The following is from the editorial columns of the *Livestock World*, Chicago:

A gigantic struggle between the 10,000,000 farmers and grain producers of the United States on one hand and the National Grain Dealers' Association on the other, is disclosed in the numerous farmers' organizations which are being rapidly formed in all grain-producing States for the purpose of fighting the merciless extortions of the trust.

Many of the elevators of the United States are railroad property, and a combination of the railroads and trust has placed the farmers of the whole country wholly at the mercy of the combine, which extorts from 4 to 10 cents on every bushel of grain raised by the producer.

Illinois has about 2,000 grain buyers, who are exacting enormous toll from the 200,000 grain producers of the State, and it is the same in every grain-producing State in the Union, many farmers receiving 10 to 12 cents less than the actual market prices of their grain per bushel. The following is an extract from a statement compiled by President W. H. Lotspeich, of the farmers' organization lately formed at Somers, Ia.:

"Nearly every business enterprise is supported by agriculturists. If each one of these agriculturists will join together in his home neighborhood, forming a shipping association, and markets his grain direct to the primary markets, securing \$100 more annually for each man than he does when selling to representatives of line elevator companies with headquarters in big cities, the producer keeps his profit at home. The saving would be \$20,000 annually to that local neighborhood, which would aggregate \$200,000,000 annually to the 2,000,000 farmers embraced in that territory commonly known as the 'granary of the world.'"

"This would give a great impetus to all mercantile business depending upon farmers for their support. When farmers succeed, times are good throughout the length and breadth of the land. If farmers are hard up, every business begins to feel its effects, and ultimately hard times ensue."

#### HOW TO LIVE LONG.

"If we must die, let old age claim each of us as its natural trophy."

It has been said that it is better to be born lucky than rich, but it is, in fact, better to be born tough than either lucky or rich.

After 40, eat less and eliminate more. Drink more pure water and keep the peristaltic wave of prosperity constantly moving down the alimentary canal.

Many people suffer from too much business and not enough health. When such is the case they had better cut out business and society for a time, and come down to muck and milk and first principles.

Don't be foolish. Eat less and play more. Indulge in less fret and fume and more fruit and fun.

There are people too indolent to be healthy; literally, too lazy to live.

Work your brains and keep in touch with people. Do something for others and forget yourselves.

There is nothing so insane and detrimental to mind and health as the conversation of people on their aches, and pains, and troubles. The froth of whipped eggs is a tonic compared to it.

All our appetites are conditional. Enjoyment depends upon the scarcity.

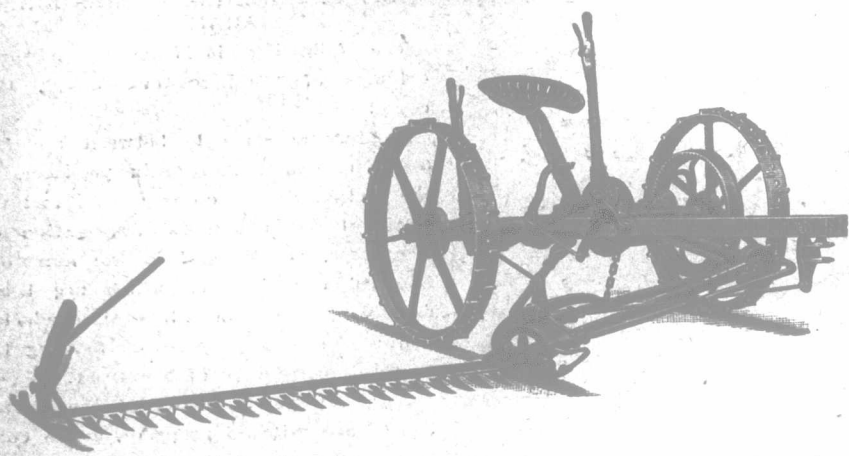
A worker in any field, whose age is near either the shady or sunny side of 50, should consider himself in his prime, good for another half century of temperate, judicious work.

Let grandma wear bright ribbons and gaudy gowns if the colors become her, and let grandpa be as duds as he pleases with flashy neckties and cheerful garb. Both will be younger for it, and, besides, it is in harmony with nature.

Gray hair is honorable; that which is dyed is an abomination before the Lord.

Cultivate thankfulness and cheerfulness. An ounce of good cheer is worth a ton of melancholy. DR. G. F. BUTLER.

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



## Frost & Wood No. 8 Mower

This Mower has proven to farmers in all parts of the land that it cannot be beaten on the market to-day as a HAY CUTTER.  
It will pay you to see and examine it closely before buying any other. We would call your attention to:-

**The Internal Gear, Spring Foot Lift,  
Roller and Ball Bearings,  
Forged Steel Pitman Connections,  
and the Absence of Neckweight.**

Our Catalogue "F" for 1905 is full of valuable information.  
Your name and address on a post card will bring it and a HANDY VEST-POCKET MEMO. BOOK to you.

*The Frost & Wood Company*  
LIMITED

HEAD OFFICE AND WORKS: SMITH'S FALLS, ONT.

Winnipeg, Man. Toronto, Ont. Montreal, Que. Quebec, Que. St. John, N. B. Truro, N. S. Charlottetown, P. E. I.

## Chatham Incubators Hatch Spring Eggs into Fall Dollars.

May and June are the best months to start in. June hatched chicks grow like weeds during the early summer and many of the risks of the business are avoided if you start now.



No Cash to Pay  
Until Fall, 1905.

Every chick you can mature and market in October is worth 50cents, if not more. The next three months are the right ones in which to get started in the chicken-raising business. There's good money in it and the women folks and children can do all the work that needs to be done in about one-half hour daily.

The way to make poultry pay is to get "broiler" chicks of uniform size and weight ready for the market when prices are highest, and the only way this can be done is with a good incubator. The one that is sure and never-failing is the CHATHAM. If the egg is fertile the chick is sure to be hatched every time by a

## Chatham Incubator

So sure are we of results that we take chances on your success before we get our money for the machine.

**We will ship you a Chatham Incubator, freight prepaid, and give you two years to pay for it. Nothing to pay until November, 1905.**

The Chatham Incubator pays for itself every hatch, and if you get started now, which you should, the June hatched chicks will have a market value of 50c. each by October, thus enabling you to pay for the incubator without using one cent of money not earned by the machine itself.

Our beautiful and complete book, "How to Make Money Out of Chicks," tells the whole story. No poultry raiser can afford to be without it. It's FREE. Send for it NOW.

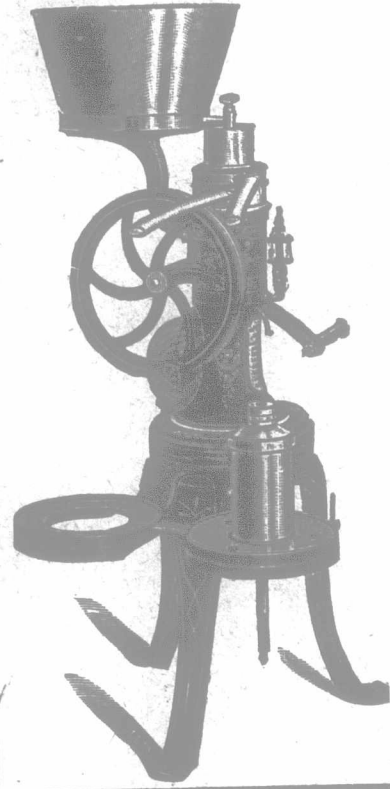
**THE MANSON CAMPBELL CO., Limited**  
Dept. 1  
CHATHAM, ONT.

Distributing Warehouses at Montreal, Que., Hamilton, Man.; Calgary, Alta.; New Westminster, B.C.; and Halifax, N.S.

Factories at Chatham, Ont., and Detroit, Mich.  
Also Manufacturers of the famous Chatham Fanning Mills and Chatham Farm Scales.



Manson Campbell



## National Greatness

**Depends on the Prosperity of the Farmer.**

The prosperity of the farmer depends largely on having a

## National Cream Separator

which will save time and labor, and insure additional profits in the dairy.

Many a farmer has lost the price of a Separator by delaying purchase. Buy now. The National soon

## Pays for Itself.

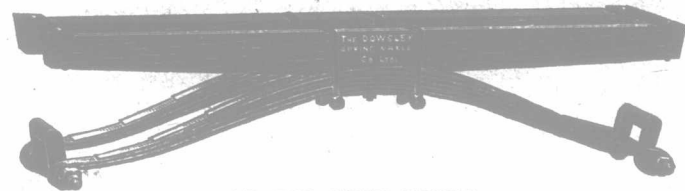
We know the merits of our machine, fear no opposition, and solicit a free trial.

Don't worry about the price, the extra cream will settle for the National.

The RAYMOND MFG. CO., Limited, P. O. Box 518, WINNIPEG, MAN.

## The NEW KENT FARM WAGON BOLSTER SPRING

Makes a Farm Wagon a Spring Wagon.



The best Spring made.

Easy on the horses

Easy on the man.

Easy on the wagon

Neatly painted.

Ready for use.

AS WE SHIP THEM.

AGENTS WANTED EVERYWHERE

Write at once for prices.



Made Only by

AS THEY APPEAR WHEN MOUNTED.

The DOWSLEY SPRING & AXLE COMPANY, Limited  
CHATHAM, ONTARIO.



## SAFE-LOCK SHINGLES

make a perfect roofing for HOUSES, BARNs, STORES, etc. Weather-proof, ornamental, lasting in quality, protect from fire and lightning.

If people would realize the danger in using wooden shingles, and making fire-traps of their buildings, they would use exclusively Galvanized "SAFE-LOCK" Shingles. They are easily applied; add to the handsome appearance of any building; keep rainwater clean, as no dust adheres to them; should easily last fifty years, without any painting or attention, as they have no parts to get out of repair, and interlock each other on all four sides. They protect from lightning, and give their owners a contented mind, which makes up for the difference in first cost as compared with wooden shingles. In the long run they are the cheapest roofing sold.

Send us rafter length and width, for estimate, and we will make you an interesting proposition. Catalogues mailed free and samples sent by express, you paying the express charges, which will be allowed on first purchase.

The Metal Shingle and Siding Co., Limited  
Preston, Ontario

Manufacturers of all kinds of Metal Roofing, Corrugated Sheets, Siding, Ceilings, Ventilators, Tanks, Stanchions, Watering Bowls, etc.

Advertise in the Farmer's Advocate.

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