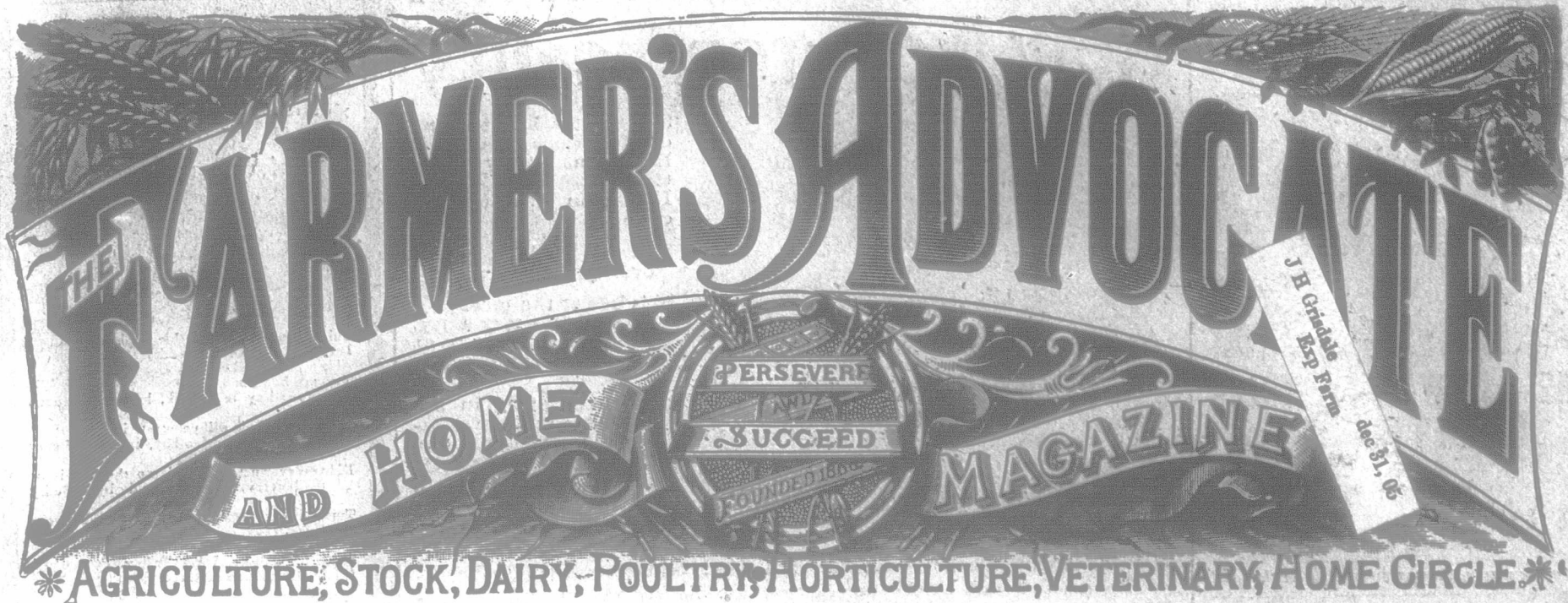


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* AGRICULTURE, STOCK, DAIRY, POULTRY, HORTICULTURE, VETERINARY, HOME CIRCLE *

PUBLISHED AT LONDON, ONTARIO. APRIL 6, 1905. WINNIPEG, MANITOBA. No. 654

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Rapidly producing Concrete Drain Tile and Well Curbings, with telescopic or plain joints. Sizes, from 4 to 36 inches in diameter. Every municipality needs such tile. Send for particulars and prices.

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Coarse enough to dissolve slowly, and not be carried out with the whey. WINDSOR SALT preserves cheese better, and makes the smoothest, richest and best quality cheese. See that your dealer gives you WINDSOR SALT.

A good investment that pays dividends all through life is a course of training in any of the Departments of the

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

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Enclosed vertical gearing turning in oil bath on ball bearings.

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P. O. Box 329. Vancouver, B. C.

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Write for Special Prices from 100 up.

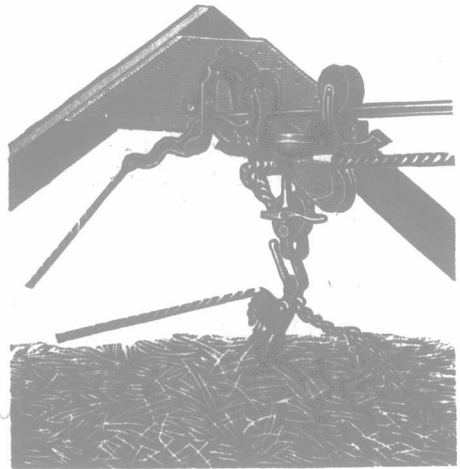


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THE OSHAWA HAY CARRIER WORKS,
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Agents wanted in unrepresented localities.

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

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Trees! Trees! Trees!

We have a full line of Fruit and Ornamental Trees for spring, 1905, at lowest possible prices.

Headquarters for packing dealers' orders.

Farmers wishing to buy first-class stock absolutely first hand and without paying commission to agents, should write to us at once for a catalogue and price list.

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Correspondence solicited.

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Special One-Way Excursions

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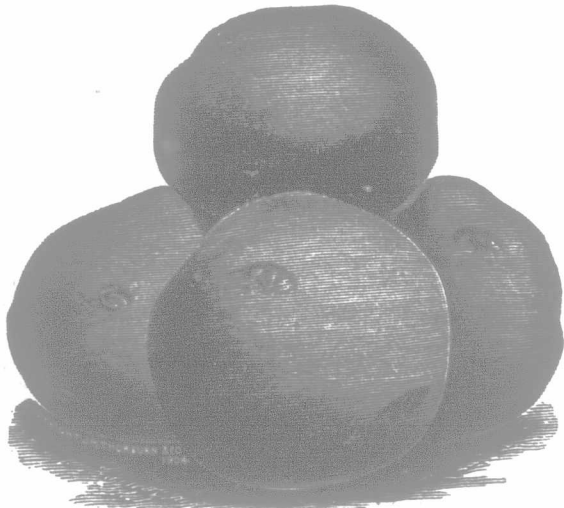
Billings, Mont.	\$34.25
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It is the earliest potato ever grown.

It is by far the most productive extra-early, yielding as heavily as any of the medium early sorts.

It is handsomer in appearance and more uniform in size and shape than any other variety.

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We also offer the following well-known varieties: EARLY OHIO, EARLY SIX WEEKS, EARLY BOVEE, BOVEE'S WHITE BEAUTY AND SIR WALTER RALEIGH.

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Our beautifully-illustrated Catalogue of Seeds and Implements, etc.—88 pages—mailed free to all applicants.

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IDEAL WOVEN WIRE FENCE

Made to Last.

This fence is made to keep your live stock in and your neighbor's out. It will do this not only for this year and next year, but for many years to come. To do this the fence must be strong and durable. The IDEAL is both, because we use large gauge (No. 9) hard steel wire for both stays and horizontals, securing them with the "Ideal knot that will not slip." The wire is well galvanized, being tested thoroughly by us before being made into fence.

We cannot tell you all about it here, because we have much to say. If you are interested in fencing, write us for our illustrated catalogue. It shows a style for every purpose, and tells you why the IDEAL is the best value. Our catalogue also shows the Ideal All-metal Farm Gate.

All that is necessary is to send us your address on a postal card. Do it to-day.

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Pulls Stumps or Standing Trees.

Clears a two-acre circle with one sitting—pulls anything the wire rope will reach; stumps, trees, grubs, rocks, hedges, etc. A man and a boy with one or two horses can run the

COMBINATION STUMP PULLER,

Stump Anchored or Self Anchoring.

A minute and a half it takes for the ordinary stump. No heavy chains or rods. Note the strong wire rope with patent coupler—grabs the rope at any point. Does not chafe rope; far ahead of old-style "take-ups." Smallest rope we furnish stands 40,000 lbs. strain. It generates immense power and it's made to stand the strain. We also make the Iron Giant Grub and Stump machine, the L.X.L. Grabber and Hawkeye Grub and Stump Machine. Write for free illustrated catalogue.

Largest manufacturers of Stump Pullers in the World.
Established 1884.

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888 8th St.,
Neomouth, Ill.

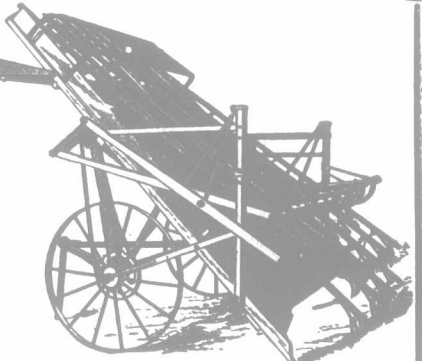
HAY LOADER TALK No. 3

BY THE DAIN FELLOW.

Before mentioning the Loader, we want you to take a look at the Side-Delivery Rake.



This is a mighty serviceable implement. It takes the place of a Tedder. Also a Sulky Rake. Two machines in one. Puts your hay in a high, loose, continuous winrow. The wind and air will penetrate it. This gives you air-dried hay, instead of sun-burnt. Did you ever notice how damp the hay is at the bottom of a winrow made by a Sulky Rake? This never occurs with the Dain Side-Delivery Rake. The winrow is too loose. It doesn't whip or thrash the hay. It is a slow-motion machine.



Then the Dain Loader takes your hay CLEAN right out of the Side-Delivery Rake winrow.

No second rakings. We can do this out of the swath too.

Do you remember the last time it rained on your winrows? Next morning you had to go out and throw it about with a pitchfork.

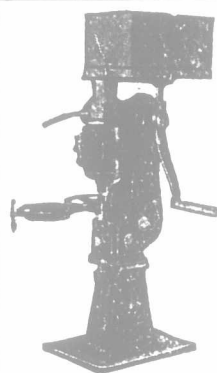
The Dain Side-Delivery Rake does this much better, and in less time than a dozen men can do it.

Get these facts into your mind. They'll help you, make money for you, if you'll let them.

Write for our circular. We have one written by a practical farmer. Yours for the asking.

Dain Manufacturing Co.,
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THE OXFORD Cream Separator



Is easy to wash and turn, is a perfect skimmer, is durable, has no exposed gears, has low-down supply tank, and is fitted throughout with Ball Bearings.

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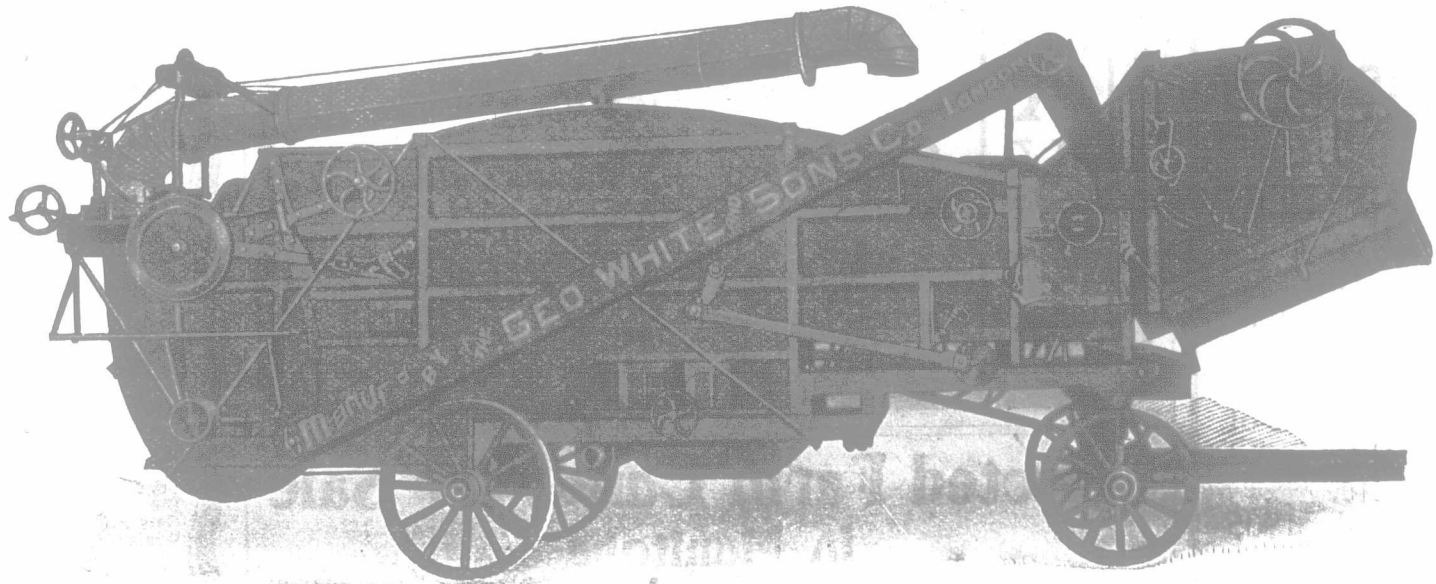
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Has your thresher-man arranged to furnish you with latest and best?

This machine has proven itself.

FARMERS

Does two days' work in one.



SAVES WORK TIME AND MONEY FOR THE MEN FOLKS.

SAVES WORK TIME AND WORRY FOR THE WOMEN FOLKS.

The NEW WHITE CHALLENGE with Cutting Attachment.

If you are not familiar with this money-maker, we will be pleased to instruct you.

The GEORGE WHITE & SONS CO., Limited

LONDON, ONTARIO.

Write us for information.

DO YOU KNOW

THAT WORN-OUT LANDS MAY BE MADE PRODUCTIVE AND PROFITABLE BY THE JUDICIOUS USE OF THE RIGHT KIND OF FERTILIZER?

NOW IF YOU HAVE A PIECE OF LAND THAT WONT GROW ANYTHING BUT WEEDS, TALK WITH US ABOUT IT AND LET US SUGGEST THE RIGHT FERTILIZER

WE FEEL VERY SURE THAT WE CAN SHOW YOU HOW TO USE FERTILIZERS WITHOUT GREAT EXPENSE SO YOUR LAND WILL PAY

CONSULT US FREELY IT IS OUR BUSINESS TO KNOW ENQUIRIES FREELY ANSWERED AGENTS WANTED FOR TERRITORY NOT TAKEN UP

THE W.A. FREEMAN CO. LIMITED
HAMILTON ONTARIO

Every Farmer Should Have a

2,000-lb.

KING EDWARD SCALE

Manufactured by



Get our special prices this month

C. Wilson & Son, Ltd., Toronto, Canada.



Frost Lock

So simple, it makes you wonder why it wasn't invented a hundred years ago. So great, it makes the "Frost" the best wire fence in the world.

Frost Wedge Lock LOCKS running and upright wires together. Does not bend, knot, crimp or kink them. Simply locks them so they can't sag, bend, rub or hang. It's the only device yet invented that locks two hard wires without injury to either. Galvanized to prevent rust.

A wire fence that is put together with small, soft tie wires is just as strong as those soft wires, and no stronger. A lock that needs a crimp or bend to make it hold, weakens the whole fence. When the horses or cows get to cutting up, and ram into the fence, those weak spots snap like a bursted bubble.

Frost Wire Fence

is high carbon coiled spring steel wire, and every strand is capable of bearing 2,000 pounds weight. Uprights are large and strong, and the Frost Lock holds uprights and running wires into one compact whole that even Texas steers can't break down.



Write for catalogue. It's free.

FROST WIRE FENCE CO. Limited

WINNIPEG, Man.

HAMILTON, Ont.

CLEVELAND, Ohio



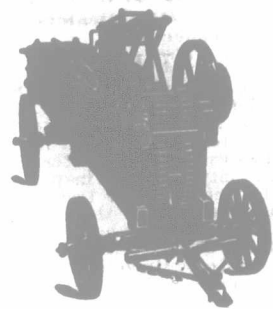
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Sold direct from the manufacturer to the consumer.

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. 700. per barrel, strictly cash, f.o.b. cars Queenston. Go in with your neighbor and get benefit of carload rates. o

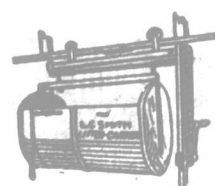
ISAAC USHER, Queenston, Ont.

Columbia Hay Press Co., Kingsville



Our customers are unanimous in praise for the Columbia Press. They say it will do all we claim for it and even more. It has a record of 60 tons in 10 hours. We will guarantee it to do at least 5 tons per hour. Write for full description, with testimonials of reliable persons.

THE L. O. SMITH
FEED & LITTER CARRIERS.



Patented June 16th, 1903.

Can be adapted to any barn or farm building.

Write us for particulars.

LYMAN C. SMITH,
OSHAWA, ONT.

Choice Seed Grains—Manscheur barley, Emmer, Tartar King oats. All grains well cleaned and graded, at reasonable prices. Write for samples and particulars. JAMES DYCKSON, "Glenatn Farm," Orono, Ont.

ADVERTISE IN THE ADVOCATE

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Simmers' Seed Catalogue

FOR 1905

is now ready. The largest and handsomest Canadian catalogue, describes hundreds of new and standard varieties of Farm, Vegetable and Flower Seeds, etc. This beautiful 1905 guide is

Now Ready

and gives full directions for successful gardening. It tells all about Simmers' reliable Seeds, Plants and Bulbs.

Why they are preferred and planted by experienced field, vegetable and flower growers.

Just the garden book you will be glad to receive and study.

All our customers will receive a copy without making application.

Sent to any one interested in farming, gardening, etc., **FREE**.

J. A. SIMMERS,

143, 145, 147, 149, 151 King St., East
TORONTO, ONT.

CANADA'S PREMIER SEED HOUSE

Free Dairy Course at the O. A. College
For Milk Producers, Milk Dealers
and Milk Inspectors,
APRIL 17th to 27th, 1905.

This ten-day course is designed to help the man on the farm, who is producing milk for creameries and cheese factories and for town trade, to produce better, cleaner and more economical milk, the dealer to sell better and purer milk in town or city, the milk inspector in towns or cities to know how to test milk properly and what to expect in the way of clean cows and stables. The dairy herd, stable and laboratories of the College will be available for instruction and experimental work. A course of ten lectures will be given. For further information, apply to

H. H. DEAN, Prof. Dairying, O. A. C., Guelph.

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CIRCULAR
FOR RAW FURS
To McMillan Fur & Wool Co.
MINNEAPOLIS, MINN.
DEPT. 20

\$3 a Day Sure Send us your address and we will show you how to make \$3 a day absolutely sure; we furnish the work and teach you free, you work in the locality where you live. Send us your address and we will explain the business fully; remember we guarantee a clear profit of \$3 for every day's work, absolutely sure. Write at once. IMPERIAL SILVERWARE CO., Box 706, Windsor, Ont.

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Never too Late to Mend

You may have been disappointed in your experience with a Cream Separator because your first choice was unfortunate

DeLAVAL Cream Separators ARE DIFFERENT

THE DeLAVAL SEPARATOR CO.

77 York Street

WINNIPEG TORONTO MONTREAL
Grand Prize St. Louis and other World's Expositions

Selected Farm Lands for Sale In Manitoba

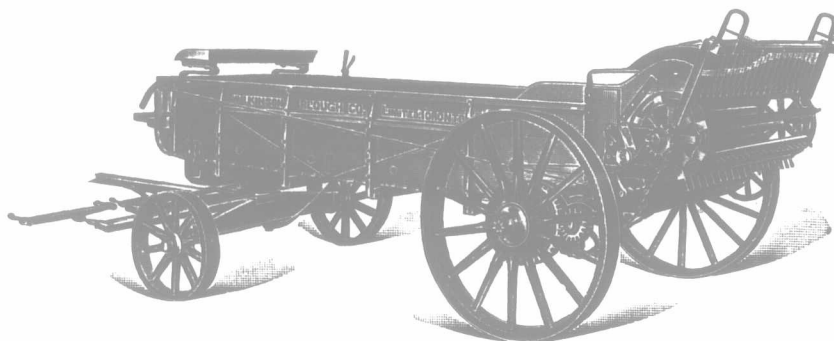
ALL SUITABLE FOR MIXED FARMING. UNIMPROVED

- No. 1. 320 acres, near Swan River, C. N. R. Price.....\$3,200
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- No. 7. 320 acres, near Portage la Prairie. This farm has house, stable, and other buildings, with over 100 acres cultivated. Price..... 5,000
- No. 8. 160 acres, near Patrick station, C. P. R., Pheasant Hill Branch, Sask.

These farms will be sold on reasonable terms. For further particulars, address

THE G. B. HOUSSE LUMBER CO., LTD.
PORTAGE LA PRAIRIE, MAN.

GREAT WESTERN ENDLESS APRON MANURE SPREADERS



Simplicity, strength and durability combined, make easy operation and excellent results a certainty.
REMEMBER: The wheels tracking; the endless apron; the non-bunchable rake; the large capacity, 70 bus., and our guarantee to give satisfaction or no sale.

Write for Catalogue. Dept. "L."

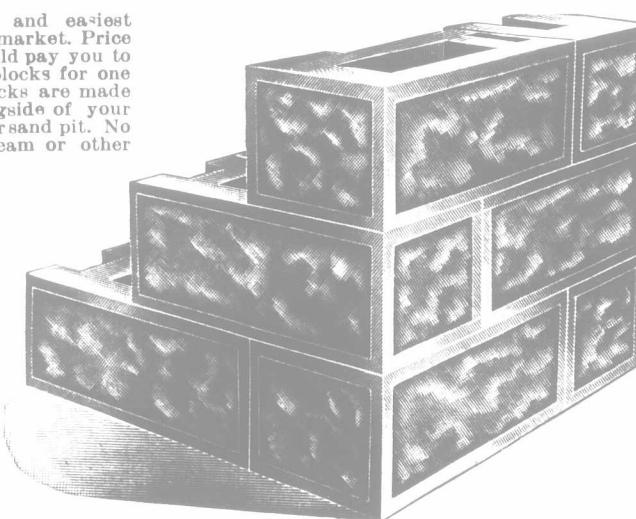
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Dunn's Hollow Concrete Block Machine

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 bulling of every description. Cheaper than brick or stone and much hand-somer. Warmer in winter; cooler in summer; and indestructible.

Write for particulars to Dept. O om



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

Sharple's Tubular Separators

EVERY TUBULAR STARTS A FORTUNE

If you had a gold mine would you throw half the gold away? Properly managed dairies are surer than gold mines, yet many farmers throw half the gold away every day. The butter fat is the gold—worth twenty to thirty cents a pound. Gravity process skimmers—pans and cans—lose half the cream. Your dairy can't pay that way.

Like a Crowbar

Tubular Separators are regular crow-bars—get right under the trouble—pry the mortgage off the farm. How? Gets all the cream—raises the quantity and quality of butter—starts a fortune for the owner. It's a modern separator. The picture shows.



Write for catalogue F-108.
Canadian Transfer Points: Winnipeg, Toronto, Quebec, St. John, N. B., Calgary, Alberta. Address
THE SHARPLES CO. P. M. SHARPLES
CHICAGO, ILL. WEST CHESTER, PA

FARMING FOR PROFIT

Is what every farmer's boy expects to do. He should take advantage of every opportunity to perfect himself along the lines of his chosen work.

A course in business training at the

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Y. M. C. A., has materially assisted hundreds of young people, and we can do as much for you. Catalogue for a postal.

J. W. Westervelt, Principal.



Open Your Eyes

Life is full of opportunities for the man who KNOWS. The keenest competition is at the bottom. You can fit yourself for a better position IN YOUR SPARE TIME and at small expense, by taking a study course AT HOME. Cut this out and mail it to us with your name and address, marking which line of work you prefer.

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CANADIAN CORRESPONDENCE COLLEGE, LIMITED
161 Bay St., Toronto, Ont.

BRIGHT YOUNG MEN WANTED

To qualify for positions as telegraphers on Canadian railways at from \$40 to \$60 per month. Our new telegraph book, giving Morse alphabet and full particulars, mailed free.
DOMINION SCHOOL OF TELEGRAPHY
9 Adelaide Street East, Toronto.
The only perfectly-equipped Telegraph School in Canada, in which a really competent staff of teachers is employed

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

CURES SCIATICA and RHEUMATISM WESTERN RHEUMATIC POWDER AND BLOOD PURIFIER.

New vegetable remedy, giving wonderful results. Send for one box, two weeks' treatment, and know that it will benefit you. We guarantee it. \$1 a box, or six for \$5, prepaid to any place in Canada. Sold only direct to patients. Send to us.
RHEUMATIC REMEDY CO., Peterboro, Ont.

The Farmer's Advocate

and Home Magazine.

"PERSEVERE AND SUCCEED."

ESTABLISHED 1866

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VOL. XL

LONDON, ONT., AND WINNIPEG, MAN., APRIL 6, 1905

No. 654

EDITORIAL.

Now the Seeding.

The temperature in the last ten days has been more like that of May than of March. The great depth of snow that lay on the ground a month ago disappeared as if by magic and without causing destructive floods. The indications favor an early seed-time, and farmers will do well to be prepared to take full advantage of these conditions by forwarding the work as rapidly as possible. It is rarely that late frosts do any serious damage to grain crops, and it has been satisfactorily demonstrated that, as a rule, the early-sown seed brings the best yield in bushels and the soundest sample of grain. The early-sown clover seed also gets the best start, grows stronger, and is the more able to hold its own after the nurse-crop is harvested. Economy of time is an important factor in the farmer's calculations in these times of scarcity of help, and it is well to be prepared to make the most of every hour when the weather and the land are in a suitable condition for seeding operations.

If the seed has not already been secured and carefully cleaned, this should be attended to at once, so that a full day's work may be done in the field when seeding operations are in swing. If, for any reason, there is doubt as to the vitality of the seed, it should be tested to ascertain the percentage that will germinate. The implements will doubtless have been examined and put in condition to do effective work in the preparation of the seed-bed, and the horses judiciously fed and exercised, to harden their muscles and fit them for the work, their collars fitted and their harness made strong and safe. Horses which have had little work during winter, and this is the case with most farm horses nowadays, require careful feeding and handling when spring work commences, especially if the weather be very warm. They should not be driven hard for the first few days, but allowed frequently to breathe freely, their collars being slackened to cool their shoulders, which should be washed with cold water at noon and with salt water every evening. Great care should be observed that the collars fit well, that the hames fit the collar perfectly, and that the draught be not too high or too low, but equally divided, so that the horse may work with the greatest ease possible. Galled shoulders are painful to the willing working horse and also to the mind of the man in charge who has the proper spirit in him, and should be carefully guarded against by watching for the first appearance of abrasion, relieving the pressure on the part and applying some lotion to harden the skin and heal the soreness.

It is not wise to take for granted that fine weather is going to be continuous and to cultivate across a whole field, taking the risk of the work being checked by a rain when the work is half done, and the water-furrows filled in so that the finishing is unduly delayed in waiting for the drying of the water-soaked land. Better work one half and finish it, running out the furrows and leaving it in a safe condition in case rain comes. Then the portion first finished will probably ripen first and may be harvested before the second is ready, while if all ripens at once, loss from shelling may occur before all can be harvested. The desire to finish seeding early too often leads to skimping the cultivation, which is a serious mistake. The seed-bed should be properly prepared, though the time and labor be protracted, and one should be satisfied that the work is well done before leaving it, as this may easily

make all the difference between a good crop and a partial failure.

In connection with spring seeding, the gospel of clover-growing cannot be too strongly preached, as this is the sheet anchor of successful cropping and of maintaining the fertility of the land. Sow clover freely with every grain crop, for, even if it is to be plowed down the same season, it will pay in the improvement of the soil, and will afford some pasture besides. Alfalfa as a soiling pasturage and hay crop, should receive consideration from farmers wherever the conditions are likely to be favorable, and a trial given it on a limited scale to begin with. It has many enthusiastic advocates, and where it is adaptable it produces heavy crops of the best of stock food. The earlier this is sown after the soil is in suitable condition the better it succeeds and the larger the returns in the first season.

Do We Need a New Horticultural College?

At an executive committee meeting of the Niagara Peninsula United Fruit-growers' Association, held at St. Catharines, March 25th, it was decided to apply to the Dominion Government for the establishment in the Niagara District of an experimental farm and college, to be devoted almost entirely to horticulture. The present Dominion and the Ontario Agricultural College experimental farms are too far north to be of much service to the fruit-growers under Niagara conditions. It was suggested that the Horticultural Department of the Ontario Agricultural College might be moved there, and it has since been mooted that, having endowed the institution, the Federal Department might turn it over to the Province, to be run in connection with the O. A. C. The justification for this essentially local assistance is sought in the fact that Ontario pays a large share of the Dominion taxes. We do not think the suggestion is likely to be very seriously entertained at Ottawa; nor could we approve any such step by the Provincial Department. Good work has been done at the Experiment Fruit Station under Mr. Murray Pettit, at Winona, grape culture being the specialty, but, while there is unquestionably need for an extension of systematic experimental work in the Niagara Peninsula, we doubt the practicability of running a special school of horticulture. It is one of those ideas which sound plausible, but do not work out well in practice. In the first place, we would expect difficulty in getting attendance and keeping up interest, while the benefits to the students, we fear, would fall far short of the anticipations of the promoters. The best agricultural college student is the one who takes a general course. It has been often noted at Guelph that the men who take the complete course make better progress in their favorite subjects than others "specializing" on them, omitting the rest of the lectures. The specialist seldom finds in his course sufficient complexity, variety or scope, to employ his faculties to best advantage, and so his interest languishes.

Then, the proposal to remove from Guelph the Horticultural Department of the O. A. C. cannot be considered. It is needed there for the benefit of farm horticulture throughout the Province. Nova Scotia has for years maintained a horticultural school at Wolfville, in connection with her fruit experiment station, but it is now being closed, and the Professor is going to the agricultural college at Truro. A special experiment station is still wanted in the Annapolis Valley, but the results of a special horticultural school have not warranted its continuance. The case of the

Valley is parallel to that of the Niagara Peninsula, and we would do well to profit by Nova Scotia's experience. A good general experiment fruit farm in the Niagara District, the idea of which we commend, could incidentally be made a useful adjunct of the O. A. C.. The results of its investigations would be available for the horticultural students, and being convenient of access, they could occasionally visit it, to observe demonstrations in cultural work such as might not be presented at Guelph.

A Conference of Canadian Fruit-growers.

In compliance with the earnest resolutions of the Provincial Fruit-growers' Associations of Canada, Hon. Sydney Fisher has finally announced that a federal convention of fruit-growers will be called at the Capital in the autumn of this year, to discuss matters germane to the horticultural interests of the Dominion. There are many questions agitating the minds of our fruit-growers which only a representative council can satisfactorily adjust, to say nothing of the educational benefits from such an interchange of thought as would be brought about. Amongst the questions to be discussed, perhaps one of the most urgent is the adoption by all Canada of a uniform-sized apple barrel, as a legal standard upon which adjustments of transportation tariffs may be based. At present the law does not prescribe a definite size, but merely provides a maximum and minimum dimension. The 96-quart Nova Scotia or American apple barrel, and the 112-quart Ontario flour barrel are thus both legalized by statute. As the transportation charges, it is said, are based upon the maximum size, the Nova Scotian is taxed the same price on his 96 quarts as the Ontario shipper on 112. On the other hand, it is claimed that the Ontario grower sometimes loses through the failure of purchasers to make full allowance for the greater capacity of his barrel, as compared with that from Nova Scotia and the United States. Be that as it may, the desirability of a uniform legal package requires no demonstration.

The difficulty of the legislators has been which size to adopt. The Nova Scotia three-bushel standard is a very desirable package for apples, and has the advantage of being the same size as that used by our American competitors. The Ontario growers have found their barrel economical, seeing that it may be cheaply manufactured by the flour-barrel factories, cull stock often being used. With the adoption of home manufacture by local coopers, this latter will become a factor of less and less importance. It will be seen that the question is sufficiently complicated to call for mature deliberation in national council, and from the proposed assemblage some definite recommendation will be expected.

Another knotty problem is the more explicit definition of No. 2 apples. A No. 2 barrel may now contain almost any kind of reasonably sound fruit, so long as it is honestly packed. The task of framing a specification that will insure a satisfactory standard in size and quality for each variety, is no easy one, and the suggestions of a council of practical growers and shippers would prove invaluable.

Cold storage and marketing, freight rates and classifications, express charges, regulation of or a means of dispensing with the commission business and a whole range of commercial and scientific subjects will come up for discussion. There will, indeed, be no lack of topics or recommendations, and the work of such a conclave must redound materially to the advancement of Canadian

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horticulture. It would seem that the central council should be established as an annual or biennial event, and that it should be looked to as a representative parliament of the fruit interests of the country. We believe that more general adoption of this conference idea would conduce to the better direction and value of departmental effort.

The National Records Officer.

All the leading pure-bred live stock breeders' associations of Canada having decided to nationalize their records and locate their respective headquarters and registrars at the Capital City, Ottawa, the "Farmer's Advocate" begs leave to commend the proposed choice as Chief Officer of Records, of Mr. W. A. Clemons, for a couple of years past the efficient Publication Clerk in the Dominion Department of Agriculture. Mr. Clemons, as record-keeper for the Canadian Holstein-Friesian Association, demonstrated his capacity for that class of work. Careful, faithful and methodical, he will command the respect and confidence of the breed organizations as the officer who is to affix the national seal or stamp upon the certificates of registry and transfer as received from the various breed registrars.

Work for the Railway Commission.

The sub-committee of the Parliamentary Agricultural Committee at Ottawa, appointed to investigate the question of discrimination in freight rates on agricultural products and live stock on the part of the railways, has made its report. The committee reported, after taking considerable evidence, that there was discrimination between different points, and recommended that the Railway Commission should investigate the matter. It was pointed out that the freight rates of the Canadian railways were considerably higher in some cases than those of the American lines, and also that the Canadian roads charged higher rates in some parts of the Province of Ontario than in others.

HORSES.

A Great Day for the Hackney.

Elsewhere in this issue we chronicle with pleasure the successful sale of Mr. Beith's Hackney horses, at his Waverley stables, Bowmanville, Ont. At an early date Mr. Beith pinned his faith to the Hackney as an ideal harness horse, either pure-bred or when crossed on properly-selected roadster mares. In actual practise they have justified themselves. Hackney-bred drivers sell at good prices, and how well they are able to command popular favor can readily be inferred from the Beith sale last week, when thirty-nine head sold for over \$25,000, or on an average of \$655 each. This is encouraging, right in the midst of the horseless age, and many of the best of them went to the United States, where the automobile craze is at its height.

Sterility in Mares.

Sterility, infecundity, or failure to breed, depends on numerous causes, some of which are removable, many, unfortunately, are not.

It is difficult to ascertain the extent to which it prevails. In the studbook it is shown that among Thoroughbred mares the percentage of those which produce is 73.36, and those which abort and are infecund, 26.64. In the studs of France the fruitful mares are 59.57, and the unfruitful 40.43. Sterility may depend upon organic or physical causes, and may amount to permanent impotence, particularly when congenital and located in the generative organs. Hermaphrodites (animals which, strictly speaking, are not of either sex; in which neither the male nor the female genital organs are fully developed, but in which there is a partial development of both) are always sterile. Monstrosities are generally permanently sterile, as also are hybrids (the produce of a male and female of different species), but there are exceptions to the latter, as there are several well-authenticated instances of the mule and other hybrids reproducing. Prolonged continence and old age is a frequent cause of infecundity, as is noticed in mares that have been used for work or pleasure until their usefulness has ceased, and then been retired for breeding purposes.

Change of climate has often a marked influence on fecundity, sometimes checking it permanently, and at others rendering the animals infecund for a longer or shorter period. It may also be impaired or suspended temporarily or permanently by ill usage, bad hygiene, etc.

Sterility may be due, though temporarily, to premature or to tardy coition when the generative organs are not in a physiological condition for conception, or when they are in an irritable, abnormal state. Underfed or overfed animals generally do not breed as readily as those in moderate condition. These causes can, of course, be removed by careful feeding and attention. Excitable or vicious mares are less likely to procreate than those of an even, gentle disposition. It has been observed that with mares accustomed to work, active exercise, even to produce fatigue, before being bred, is favorable to conception.

Various diseased conditions (which in many cases may only be suspected) of the generative or other organs, as well as general derangements of the system, may prove antagonistic to conception. There may be disease or alterations in the ovaries, fallopian tubes (the tubes which convey the ovum from the ovaries to the uterus), uterus or vagina, which will prevent conception; and if any material obstacle to the contact of the spermatic fluid with the ovum be present in these parts, conception cannot take place. Tumors of various kinds in these organs is not infrequently the cause of sterility.

In all these cases a careful manual examination should be made, as it is not infrequent that the removal of the obstacle to generation is quite within the scope of surgical or medical measures.

Probably the most common cause of sterility is an abnormal condition of the neck of the uterus. Occlusion of the os uteri (the canal leading through the neck to the body of the uterus) is more common than is generally supposed. This occlusion may occur during copulation only, and be due to a spasmodic contraction of the muscles of the os, occurring in nervous, excitable mares, and passing off when sexual excitement ceases, but is fatal to conception all the same; or the occlusion may be permanent, due to a chronic enlargement and thickening of the parts, to false membranes, or to a growth of tough, fibrous tissue. In all cases but the latter the obstruction to conception can generally be removed by an operation. The operator must, of course, have an intelligent idea of the anatomy of the parts;

he must be conversant with the normal condition, in order that he may be able to determine and appreciate the deviation from the same. The hand and arm should be thoroughly washed and then coated with sweet oil, and introduced through the vulva into the vagina, then pressed forward until the os is reached. In a normal case one or two fingers can with little pressure be introduced through the os into the uterus. If this can be readily done and the mare is of a nervous and excitable nature, we may suspect spasmodic contraction of the muscles, as stated. When this cause is suspected, the neck of the womb should be smeared with the solid extract of belladonna, which relaxes the muscles and prevents contraction. The mare should be bred in about two hours after the belladonna has been applied. If, on the other hand, occlusion is found to be permanent, a passage should be forced. Various instruments are manufactured for this purpose, but when an entrance can be forced with the fingers no instruments should be employed. By inserting the point of the forefinger into the center of the os, and pressing forward with a sort of rotary or screwing motion, it, in many cases, can be forced through, then two fingers can be used in the same manner. When the fingers have not sufficient power to force an opening, a blunt sound about the size of an ordinary catheter, or a piece of hard wood made perfectly smooth and about two feet long, so that it can be guided by the hand in the vagina, and force applied with the other hand, can be used (of course the instrument should be well oiled). Considerable force may be applied with an instrument of this kind, and when once a passage has been forced it can usually be enlarged with the fingers. When the occlusion is due to growth of fibrous tissue, or where fibrous rings surrounded the os, an entrance cannot be effected except by the use of a cutting instrument, and I do not consider it wise to operate, as, though a successful operation may be performed by a skillful operator and conception take place as a result, there is usually a reformation of the fibrous tissues during gestation, which prevents delivery and often results in the death of the dam. Hence, when cutting is necessary for conception, it is wise to forego all hopes of reproduction. When the operation with fingers or sound is successful, the mare should be bred in an hour or two after the operation. Diseases of the lining membranes of the uterus or vagina, which cause a more or less constant discharge, will prevent conception, and must be treated before breeding operations are attempted. WHIP.

Thoroughbreds and Hunters at the London Horse Show.

The third week of the London Horse Shows was occupied by the Thoroughbreds, the Hunter Improvement Society, and by the Polo and Riding Pony Society's Exhibition.

To those who are non-resident in England, probably these shows have less interest than those that took place in the two preceding weeks, namely, the Shire and Hackney Horse Societies Shows, but to any that may be in England at the period when these annual shows take place, who has any predilection for horses of the type of the Thoroughbred, Hunter or Polo, no better or more interesting exhibition could be imagined than that which is held by these societies in the second week of March in each year.

The Thoroughbred stallions which were exhibited on the first day of the show numbered ninety-four. These comprised many race horses, which have been in training for a considerable number of years. They competed for twenty-eight premiums, each of the value of £150, which are provided by the Government as a retaining fee for their services for the ensuing year, in the particular districts in which they are stationed.

The good work that has been accomplished by reason of these sound sires being stationed in the districts of the country is most fully seen in the classes for their stock, included in the exhibition of the Hunters' Show, which took place on the following two days. The entries this year for this class numbered two hundred and fifty-four, and were all of very superior merit and quality.

Efforts are being made by the Hunter Improvement Society to establish a studbook for hunter breeding. Whether or not this will eventually be successful is a question open to much discussion. A reference, however, to the present year's catalogue shows that such a record is not likely to become general for many years, if ever; for the larger proportion of the winning produce was sired by the Thoroughbred from the cross-bred mare. Weight, bone and substance are as essential in the hunter as quality and go, and, therefore, it is hard to see how all these combined can be secured by direct breeding. It may be that such will be the case when it does come; it will then be of value to other countries, because if through the efforts of the home society to establish a studbook, such becomes an accomplished fact, it will then be possible for both the colonial and the foreign buyer to purchase stud stock, and continue to breed what is at the present time a most valuable commodity in the horse market, i.e., hunters that combine size, weight, quality and character. W. W. C.

STOCK.

Prices of Pure-bred Stock.

A breeder of pure-bred pigs writes the "Farmer's Advocate" as follows:

Owing to the poor demand for breeding pigs, I have reduced my breeding stock to one-third the number I had a year ago. In future I will sell pigs for breeding purposes up to six months only. I find by experience and correspondence that 97 per cent. of prospective buyers want registered pigs, and even pigs from imported stock, at from \$5 to \$10 less per head than market price—that is, adding the extra expenses of registering, advertising, crating and expressage to the market value, to say nothing of the extra cost of up-to-date breeding stock of highest quality. Why they expect a breeder to sell his pigs for less than grade price I do not know. Do they think he is in business for his health, or do they think the Government supplies breeders with breeding stock, and pay up the deficit at the end of the year, to improve the run of hogs on the market; or do they never stop to think there are extra expenses in breeding, selling and shipping pure-bred stock?

Now, for instance, a man wants a sow in farrow, and everyone wants a good one, one that has been liberally fed, and not stunted nor held back. They expect this sow to be registered, crated and delivered at their station, satisfaction guaranteed, for from \$15 to \$18 (and to their shame, be it said, there are breeders quoting these prices). She has to be a fair, good, thrifty sow, in good condition, well forward in growth, and showing safe in pig, or she may be returned at the expense of the breeder. Most breeders know well that to breed a sow under eight months is going to stunt the sow, and the pigs will pay but a small profit, if any, on the feed consumed, except under most favorable circumstances. A sow eight months old, from good stock that have not been bred too young, of any of the large breeds, will weigh close to 300 pounds. She is bred at this age (but should be older), and has to be kept two months longer before she can be shipped, to make sure she is in pig; she is now ten months old, and weighs 350 pounds. At present market price, \$6.25 for light and fat hogs, she is worth \$21.87½. Now, the price of sows this age, and boars too, quoted by the best breeders, is \$25 delivered. She will weigh 450 lbs. crated, and will not be carried very far by express for \$1 per cwt. (\$4.50); then the other extras, such as interest on investment, advertisements, etc., about \$5, brings her up to \$31.37½, and 97 per cent. of enquirers expect to get pigs of this age and description for from \$15 to \$18. Is it any wonder, in view of these facts, that so many breeders conclude that pigs don't pay, and have been sending their sows to market this winter, while the majority of farmers breed from scrub sows, at the earliest chance, one generation after another, often using a boar only four months old?

DISGUSTED BREEDER.

The Sow at Farrowing.

To the Editor "Farmer's Advocate":

I would like to emphasize the suggestion made by B. S., in your March 16th issue, under the above heading. One of the largest and most successful breeders of swine in Manitoba informed me that his method was as B. S. points out. He gave the sow a big nest and kept away himself, and as far as he could control circumstances, allowed nothing else to disturb her. We must observe nature's workings in order to arrive at safe rules to be used in the management of our stock.

I was always taught to have only a small amount of short straw or chaff for the farrowing sow's nest, but experience and observation (which are our best teachers) have taught me that when this is done the sow is in a perpetual state of confusion, and continues rising up, pawing and rooting, until she exhausts her strength, and when thus exhausted, and worried by the squealing of the pigs, she, seemingly, would rather lie upon them than not.

In some instances a careful attendant can place each pig into a warm box and help them along, but in the majority of cases greater success will be attained by giving a big penful of clean straw three or four days in advance of time when pigs are expected. The pen should be in a quiet spot if possible, where there will be the least disturbance, and the sow should not be coaxed or driven out for food at time of or subsequent to farrowing. She will come in ample time, and if she remain in the nest for 24 hours so much the better. Of course, I have had good results from watching and helping take care of the piglets, and, on the other hand, I have had the sow to hide away in the strawstack, where I did not see her for a couple of days, and with most satisfactory results. So I have concluded it is just as well to go to bed and get my sleep, and let the sow take care of herself and little ones in the way nature has taught her.

J. R. H.
Wentworth Co., Ont.

Prized in Maine.

You will please find enclosed \$1.50 for my subscription to the "Farmer's Advocate and Home Magazine." I am more than pleased with it since it has become a weekly. It is the very best now.

C. F. SLIPP.
Houlton, Maine.

Cost of Steer Feeding.

Doctors differ. In your issue of Feb. 2nd, 1905, Prof. J. H. Grisdale, Ottawa, gives the following relative cost of a pound of grain in a beef animal:

From birth to six months.....	2 cents per lb.
Six months to one year.....	5 cents per lb.
One year to two years.....	8 cents per lb.
Two years to three years.....	17 cents per lb.

In the issue for March 9th, Mr. John Kennedy, of York Co., who has been in the steer-feeding business for thirty years, disputes Prof. Grisdale's conclusions. He says, "My experience is that three-year-old cattle can be fed at a cost of from seven to eight cents per pound." He refers to Mr. S. Rennie's statement that a gain of 300 pounds on a fattening steer of 1,000 pounds, live weight, is produced at a cost of \$24.52. Before this discussion began, Mr. R. J. McMillan, Huron Co., in an article on cattle-feeding in the "Farmer's Advocate" of Nov. 3rd, 1904, gives this opinion: "The 3½-year-old steers will get along on rougher food better than the 2½-year-olds will. The latter may grow equally as well, but the former will fatten better. Hence, I think, when the quality of feed is taken into consideration, there is a little more profit in the three-year-olds."

What are we to think of it all? There may be, as you suggest, considerable difference in the valuation of foods, but certainly very far from sufficient to make up the difference between eight and seventeen cents per pound gain. Every one of these gentlemen is, we believe, telling what he knows to be true. A possible solution may be, that while these feeders deal with ordinary pasture cattle, Prof. Grisdale, in his experiments as to cost of feeding at different ages, may have used the same animal or animals throughout, counting the cost of feed, as the experiment progressed, and

Winter Feeding of Sheep

AS PRACTICED IN GREAT BRITAIN, AND THE IMPROVEMENT OF PASTURES.

To the Editor "Farmer's Advocate":

I have often felt that it was a matter for regret that Canadian farmers have not seen fit to give more attention to sheep-raising. It appears to me that they have neglected to use the most useful animal on the farm, inasmuch as they lose every year fully one-third of the value of their pastures, as cattle and horses (after eating all they can off a field seeded down with, say, a mixture of timothy and red clover) leave as much as would afford pasture to a small flock of sheep for several weeks. Perhaps one may think at first sight that the saving of so much pasture is a very small matter compared with the labor and care demanded in properly tending sheep during the long Canadian winter; but the value of the sheep as a disseminator of manure seems in Canada to have been totally lost sight of. The time is coming, and is, in fact, close at hand, when we shall be obliged to keep more stock than we have hitherto done. This, of course, will necessitate the cultivation of more roots or corn; and while corn is perhaps the more easily cultivated, and will for that reason be probably more in favor than roots, I should imagine that taking the Eastern Provinces as a whole, the increase in the roots grown will preponderate over the increase in the acreage of corn. Herein lies the importance of keeping sheep. Like the calf, whose duty it would seem is to eat "spiled hay," the sheep has to prevent waste in the root patch, by eating off the small roots which do not pay for dressing and hauling in.

The system to be pursued on the small farms in Ontario (where a holding so rarely exceeds one hundred or one hundred and fifty acres, and it is rarely practicable to sow the whole of a ten-acre field with roots), following the English method as nearly as possible, under the different conditions of climate and season, the system to be pursued might well be as follows:

One-half of a field being sown with oats or barley, and the remainder to roots, after the straw crop has been carried off, sheep netting should be put down, so that the sheep can be turned onto the stubble without over-running the roots. The sheep will clean off a great deal of the spear grass and other unwelcome weeds, and at the same time will be close enough to the roots for it to be only a matter of a few minutes' work to carry a load of the turnip tops and spread around for them on the stubble.

When the turnips have been drawn off in the fall, and the tops disposed of, by feeding them to the sheep on the ground, the sheep should be allowed the run of the land under roots, and kept on it until they have fairly cleaned off every vestige of herbage. Allowing them on only a small piece of the land at a time ensures their cleaning up the land effectually, and their manure is more equally distributed over the land than would otherwise be the case. This applies, of course, to such sheep as are fattening for the butcher; in-lamb ewes being kept on pasture with the ram.

As for the crop to follow roots, dealt with in the manner described, the land is in as good shape as if it had been summer-fallowed, for it is clean, not only from hoeing, but from the sheep eating off any late weeds, and it has the benefit of an even coat of rich manure.

As to the feeding of sheep in the winter, the method followed must be to some extent governed by the conditions under which they are housed. They should be allowed as much exercise as possible, when the depth of snow permits, and whenever practicable should have their feeding troughs out in the yard or in an adjoining field, if not too deep with snow. Their turnips should really be cut into finger pieces by a turnip-cutter.

Sheep do not require much bulk of grain, and to make it go round evenly, it is advisable to mix it with a fair bulk of damp cut hay, and scatter this over the turnips in the troughs. Ewes expected to lamb in the coming spring should have only a very restricted quantity of roots, and many shepherds declare against their having any, but they should have free access to good water, though they drink very sparingly, and not often.

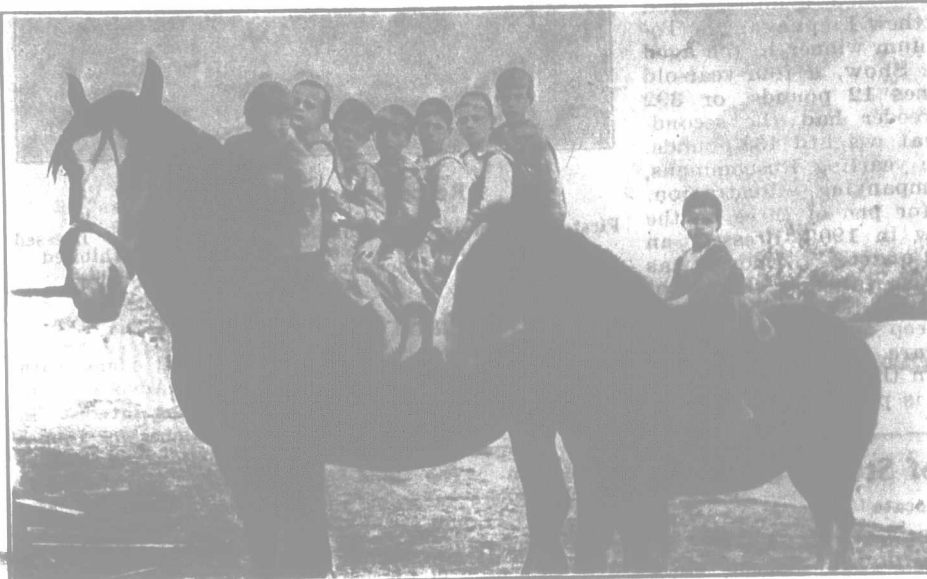
Stafford, England.

ERNEST S. SANDERS.

Since it Became a Weekly.

I have been a subscriber to your paper since the first edition, and consider it most beneficial to all farmers, especially since it has become a weekly journal.

JAS. I. DAVIDSON.
Ontario Co.



Champion Clydesdale Mare and Foal.

At New Westminster Exhibition, B. C., 1904. Owned by H. M. Vasey, Ladner, B. C.

weighing the animals at stated times. If he did so, then the beast at one year old would probably be fat; at two years old real fat, and the third year would be spent fattening a beast already fat, which, as every feeder knows, is a very costly business. Like the extra two or three knots an hour on a vessel's speed, the last extra fat is put on at great expense. Most feeders will have noticed that during the first half of the fattening period, with a much less expensive ration, cattle make as large or larger gains than they do during the latter half. This, not because they are younger, so much as they are not so nearly finished. Speaking generally, a very good motto for feeders is, "When your beast is fat sell him."

T. BATY.

[NOTE.—It strikes the "Farmer's Advocate" that, in this discussion Prof. Grisdale is now entitled to the floor; but, unlike a public meeting, anybody who has something good to say, within reasonable limits, can have his say at the same time in these columns.—Ed.]

"Pigs for Profit."

The above is the title of a decidedly useful handbook on swine-rearing, by Mr. John Walker, based on forty years' practical experience, coupled with scientific knowledge of the subject. It is written in plain, popular style, and is well illustrated. The characteristics and history of the British breeds of pigs receive treatment, but the greater portion of the book relates to housing, breeding, feeding, general management, with chapters on dressing, bacon-curing, and common diseases. It concludes with a calendar of hints for each month in the year. It sells at one shilling, and is published by W. H. & L. Collingbridge, London, Eng. We have seen no better book of the kind.

Roscommon Sheep.

Ireland's only native breed of sheep, the Roscommon, is a long-wooled, white-faced variety, which, for size, robust constitution, wealth and weight of flesh, can hardly be excelled. With an association of breeders and a flockbook, organized in 1896, protecting their interests, such a breed of sheep is calculated to prove a tower of strength to their breeders in the Emerald Isle. Unlike some other counties of Ireland, Roscommon has mainly confined her attention to the breed of sheep she claims as native. This fact is due rather to the high character of the native Roscommon sheep than to any prejudice on the part of breeders, who, it must be said, have been energetic and successful in the improvement of their sheep. Under the modifying influence of soil and climate in other countries and districts they exhibit considerable variety of type and character, but the sheep at present known as the long-wooled Roscommons are indigenous to the County, their origin dating back for centuries, and they have shown a gradual improvement in type, particularly during the last fifty years. It is held by some authorities that the present breed is the result of crossings with English blood, but the general consensus of opinion amongst old flock owners in the County is that they are the native breed, improved by judicious blending of the various predominant qualities of the sire with the flock; that is, by taking advantage of the valuable peculiarities, encouraging their development, and by degrees rendering them more permanent.

It must have been very gratifying to lovers of the breed to find that at the Royal Dublin Society's show in 1895, the Challenge Cup of the long-wooled classes was carried off by three superb Roscommon shearing rams from the flock of Messrs. Cotton, Longford House, Castleria, which weighed at that time 21 stones, or 294 pounds each, all showing well-sprung ribs, symmetry and quality of wool. Mr. Matthew Flannagan, of Tomona, Tulsk, had the premium winner in the aged class at the Royal Dublin Show, a four-year-old ram that weighed 27 stones 12 pounds, or 392 pounds, and the same breeder had the second-prize aged ram in 1897, that weighed 438 pounds. The first-prize pen of three yearling Roscommons, represented in the accompanying illustration, winners of the first prize for pen of three at the Royal Dublin Winter Show in 1903, dressed an average of 43½ pounds per quarter. Enough has been written to indicate the valuable claims of this variety to a place amongst the favorite breeds of the ovine race. All sheep offered for entry in the Roscommon flockbook are carefully inspected, their breeding traced, and in the right ear of those accepted a shamrock mark is perforated.

The Farmer's Side of Steer Feeding.

To the Editor "Farmer's Advocate":

I was much interested in Prof. J. H. Grisdale's experiments in fattening hogs with and without stock foods. I also read his and Mr. Wing's experiments in regard to the cost of producing beef at different ages, and I must say I do not agree with them. I do not think they are relative; they seem to have forced their cattle up too much when they were young, and, naturally, they did not gain as much as they should do when they were older, making a poor finish.

Some of our most intelligent farmers say that the 200-lb. hog at eight months old pays the feeder better than the same weight at six months, because they can utilize more of their cheap foods, such as roots, and for the same reason I claim that a 1,400-lb. steer at three years of age pays the average farmer better than the same weight at two years or a little over. I think it is a loss to farmers to fatten their cattle up too much when young, losing the use of much of their cheap foods, which would only go for manure, as there is no market for them, and in most cases it would not pay to take them to market. I would say it pays better to build good frames when young, and leave the fattening period to the last, if it does take a little longer utilizing all their feed. I have been fattening three steers this winter, that have gained 880 lbs. in four months, as they were put in the stable on the 26th of November, being an average gain of 293 1-3 pounds, at a cost of four cents per pound, allowing for the value of food consumed, and taking into account the worth of the manure and gain in price during the feeding period.

T. A.
Perth Co., Ont.

Directions for Making a Brank.

To make a brank or iron-headed halter for leading an unruly beast, take a piece of 3-inch round iron three feet long, and bend into an oval-shaped loop, the loop to be 2 ft. 3 in. in circumference. Weld the loop, leaving the remaining 9 inches projecting out in front, in the end of which insert a ring to attach a rope. Then punch a hole or put a staple in either side of the loop to attach straps, the one with a buckle, to fasten over the animal's head; 1½-inch straps are required.

S. E. S.
Wellington Co., Ont.

FARM.

Growing Roots and Vegetables.

Regarding my method of growing roots and vegetables, I might say the last two years I have used ground on which I raised buckwheat the previous year, which I consider the best for vegetables. I harrow the ground as soon as grain is harvested, top dress with barnyard manure made during summer and fall until snow comes, and plow early in fall about four inches deep. In spring I harrow, cross plow, and harrow again thoroughly; drill three feet from center to center, making drill a good depth; manure in drills, between 25 and 30 double loads to acre; use about 260 pounds of a complete fertilizer per acre, putting it as near seed as possible. I use a hand seeder for small seeds, and roll drills after seeding with horse roller. My first cultivating is done with attachments belonging to seeder, and for breaking the crust on top of drills of mangels and sugar beets it works well. After that, and at least once a week, and oftener if possible, I use the horse cultivator, and I consider the cultivating to be the most important part in raising a good crop of roots, while potatoes require the same. I mould my potatoes with the plow, making the drills as large as possible. As this is my first attempt at describing any of my farm work, I do not know whether it is right or not, but will say that I have followed the instructions you have given the sugar-beet growers in Ontario with success in all root crops.

Elgin Co., Ont. FRED DOW.

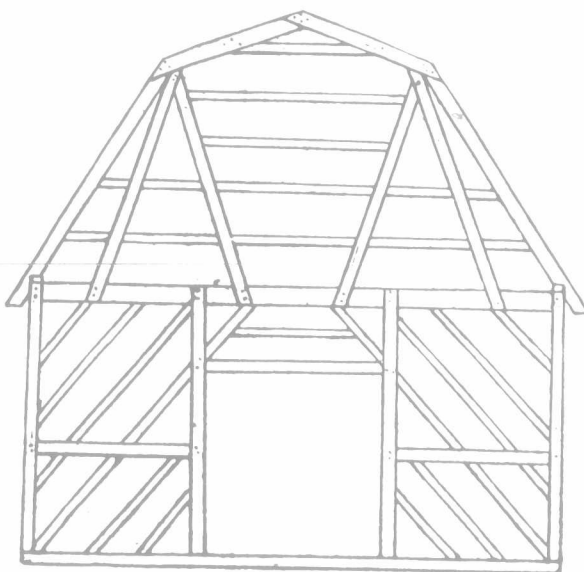


Roscommon Ewe Lambs.

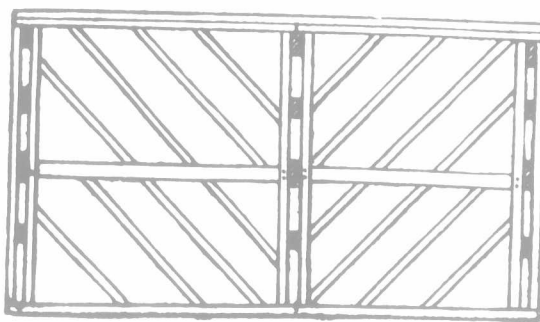
First-prize pen at Royal Dublin Winter Show, 1903. Dressed weight average 43½ lbs. per quarter. Bred and exhibited by Matthew Flannagan, Tomona, Tulsk, Ireland.

Plank Barn Frames.

Several letters of enquiry regarding plank barn frames have appeared in the "Farmer's Advocate" in the last few weeks, indicating a special interest in economical barn building, the cost of timber for frames being now so high as to render building a serious proposition. The conviction is gaining ground that heavy timbers in a barn frame are unnecessary, and they are certainly very expensive. In a letter to this paper, appearing in the February 23rd issue, Mr. W. A. Dryden says of the barn, a plan of the basement of which appears on the same page: "This barn is 114x54 feet, with side posts 18 feet long, and the height from the ground to the peak of roof is 54 feet, yet there is not a solid stick of timber in its con-



Gable End, Completed Frame.



Single Bent of Frame.

struction. The strength of a plank frame depends altogether on the way in which it is braced."

Mr. W. E. Leland, in the Maine Farmer, of March 23rd, 1905, in a letter, accompanied by the drawing reproduced on this page, gives the following description and instructions regarding the construction of the plank frame:

There is a great saving of timber, the largest used being only 2x8, from that down to 2x4. Less men and time are required to erect these barns, and they are stronger and will stand the pressure of the hay and grain from within and the buffeting of the winds from without, with less rack and sway than solid timber barns.

In erecting the frames of these barns, the first step is a good, broad, firmly-placed foundation, built of stone and cement, laid below the frost line. With this foundation to rest the plank upon the frame is raised. No sills are used, the upright studs taking the place of posts; two for each post are set on the foundation on each side of barn, between these is placed and spiked the cross plank, extending the width of barn, tying the two sides together. The scantlings on each side of barn floor, forming center posts, are then raised and spiked to this cross plank. Upon outside of each upright is spiked a plank of the same size as, and parallel with, the first cross plank. This gives three 2x8's for cross sills through center of barn, each joint, or band, being fixed in this way. End joints, using boards instead of plank upon outside, gives the bed-work of the barn. At the sides of barn between uprights in place of sill, a plank is firmly spiked; this holds the uprights in place, and prevents working sideways, while the thoroughly spiked cross planks prevent all movement in other directions.

Having this solid foundation at sides of barn upon which to rest floor sleepers, we have to build a rest for inner ends. This is done by spiking a 2x8 to the uprights directly under the cross planks, one on each side of upright, extending entire length of barn on each side of floor space. These are strengthened by bracing, and by facing the upright with plank resting upon the foundation and fitting under bed scantling, thus forming hollow box for post. Having placed sleepers and floor, the stringers for floor over tie-up, and such other floors as are desired are fitted; with these to work upon, the plates are raised, 2x6 being used, the walls studded with 2x5. These studs are placed diagonally, thus each band helps to brace its neighbor. Some are boarded in this way, but equal satisfaction is given by horizontal boarding. The purlins are built in same way as other portions of frame, 2x7 being the right size; 2x6 are used for rafters, the pitch to suit builder. Many of these barns are built with hip roof; this gives great amount of storage in the roof and a good-looking barn though the writer is inclined to favor the steep, plain roof, as being the more economical and giving better appearance.

Potato Culture.

(Ottawa correspondence.)

In giving evidence before the Agricultural Committee the other day, Mr. W. T. Macoun, Horticulturist at the Central Experimental Farm, Ottawa, referring to the culture of the potato plant, said that every year there was from 20 to 50 per cent. loss from blight, which, experiments had shown, could be prevented by spraying with the Bordeaux mixture. There was also a great loss every year in the potato crop, owing to improper methods of culture. According to recent statistics the average yield per acre of potatoes in Canada was 123 bushels, and in the Province of Ontario only 115 bushels.

"Just think," said Mr. Macoun, "what the farmers are losing each year when, by proper methods of culture, it is possible to grow 500 bushels per acre. At the Experimental Farm last year," Mr. Macoun said, "the highest-yielding variety of potatoes grown produced 690 bushels of marketable potatoes per acre, or 772 bushels of marketable and unmarketable tubers. This yield was based on the returns from a small plot. In the field crop the best yield was 370 bushels per acre. This," said Mr. Macoun, "shows that the farmers of Canada are not making the best use of their land where potatoes are grown. Their average yield is far too low."

Mr. Macoun then dealt with the question of varieties. He emphasized the point that farmers should pay more attention to the selection of varieties, as thousands of dollars were lost each year by growing poor kinds of potatoes. The largest yielder at the Experimental Farm last year was the Vermont Gold Coin, which produced 554 bushels per acre, and the poorest variety grown was the Early Andes, which yielded only 123 bushels per acre, or a difference of 431 bushels between the best and poorest variety. The speaker said that this should bring home to farmers in a forcible manner the importance of securing good varieties. He also stated that much better crops would be secured if the potato field was cultivated six times during the summer instead of three times, which is usually done.

"In cutting potatoes intended for seed," Mr. Macoun said, "two or three 'eyes' should be left in each piece, otherwise the crop would not be so large. The seed should be planted as soon as possible after it was cut, or if this could not be done, it should be sprinkled with land plaster. Seed left exposed to the atmosphere for some time before it was planted would not give as large a crop as if it were planted immediately." Alluding to the value of spraying, Mr. Macoun said that all farmers should use the Bordeaux mixture on their potato crops for the prevention of blight.

Clover as a Fertilizer.

(Ottawa correspondence.)

The value of clover as a fertilizer was the subject of an address by Prof. Frank T. Shutt, Chemist at the Central Experimental Farm, before the Agricultural Committee last week. By means of charts, showing the results of experiments with clover at the Central Experimental Farm, he produced and emphasized many convincing arguments why clover should be grown extensively on every farm. The soil, said Mr. Shutt, to produce good crops should be rich in nitrogen, and by growing clover the amount of nitrogen in the soil could be greatly increased.

In order to ascertain the amount of nitrogen added to the soil by growing clover, the following experiments were conducted at the Experimental Farm: Galvanized iron pots about nine inches deep and six inches in diameter were filled with earth, which had been analyzed to ascertain its nitrogen content. When the experiment was commenced the soil in one of the pots contained .0892 pounds of nitrogen, or an estimated amount of nitrogen for one acre of soil, nine inches deep, of 1.076 pounds. Clover was sown in the pot in the spring, and in the fall the leaves and stems of the plants were cut up finely and returned to the soil. The same was done the next year, and the soil in the pot left undisturbed until the following spring, so that the soil was enriched by two years' growth of clover. In the spring an analysis of the soil was made, which showed that the amount of nitrogen in the soil at this time was .0547 pounds, or .0155 pounds increase from two years' growth of clover. Estimated for an acre, this gives 1,255 pounds, or 179 pounds increase in two years.

A similar experiment, conducted with a small plot of clover, gave similar results. When the experiment was commenced the amount of nitrogen in a plot containing the 160th part of an acre, taking the soil to a depth of four inches, was .0437 pounds. After two years' growth of clover the same soil contained .0580 pounds of nitrogen, or an increase of .143 pounds. Estimating for an acre the amount of nitrogen in the soil, four inches deep, at the beginning of the experiment, was 633 pounds, and after two years 708 pounds, or a gain of 75 pounds of nitrogen per acre from two years' growth of clover.

Prof. Shutt also gave the results of another experiment, or series of experiments, to ascertain to what extent clover affects the growth of field crops. In the spring of 1900 two plots adjoining each other, and containing exactly the same kind of soil, were seeded, one with wheat and clover, the other with wheat alone. In 1901 corn was planted on these plots. The plot where the wheat and clover had been grown the year previous produced at the rate of 27 tons 1,760 pounds of corn per acre, while the plot where wheat alone had been grown yielded at the rate of only 19 tons 1,280 pounds per acre. The following year, or in 1902, oats were sown on these plots. The yield from the plot where the clover had been grown in 1900 was 75 bushels 16 pounds per acre, and from the plot where clover had not been grown, 51 bushels 28 pounds per acre. In 1903 sugar beets were grown on the same two plots. The plot where clover had been grown three years previous yielded 22 tons 600 pounds per acre, and the plot where clover had not been grown, 8 tons 1,200 pounds per acre, truly a remarkable difference. Mr. Shutt said he attributed the large yields from the plot where clover had been grown almost solely to the growing of this legume. Besides adding to the fertility of the soil, he said, the clover kept the soil in better condition physically, which was conducive to growing big crops.

A second series of experiments was started in 1901, when two adjoining plots were sowed, one with oats and clover, and the other with oats alone. For convenience of explanation, let plot No. 1 represent the plot sown with clover and oats, and plot No. 2 the plot where oats alone were sowed. In 1902 both plots were planted with corn. Plot No. 1 yielded 20 tons 800 pounds per acre, and plot No. 2, 15 tons per acre. The following year, or 1903, potatoes were planted. The yield per acre from plot No. 1 was 202 bushels, and from plot No. 2, 154 bushels 40 pounds per acre, or a difference of over 50 bushels from the plot where clover was grown in 1901. Barley was sown in both plots in 1904, the past year. Plot No. 1 produced at the rate of 45 bushels per acre, and plot No. 2, 38 bushels 16 pounds per acre.

"These figures speak for themselves," said Mr. Shutt, "and prove conclusively that it pays well to grow clover with all farm crops. Corn, oats, sugar beets, potatoes and barley all show greatly increased yields from the plot where clover was grown. These results should leave no one in doubt."

The speaker also exhibited a chart, showing the amount of nitrogen contained in an acre of clover—stems, leaves and roots all being taken into consideration. In an acre of Mammoth Red clover, sown in April, 1894, and collected in May, 1895, the roots being taken to the depth of four feet, there was a total of 150 pounds of nitrogen, 101 pounds in the stems and leaves, and 49 pounds in the roots. Prof. Shutt values the nitrogen in this form at 10c. per pound, or \$15.00 worth in an acre of clover of one year's growth. Numerous experiments along this line bore out the results of the one cited above, showing the great value of clover as a fertilizer.

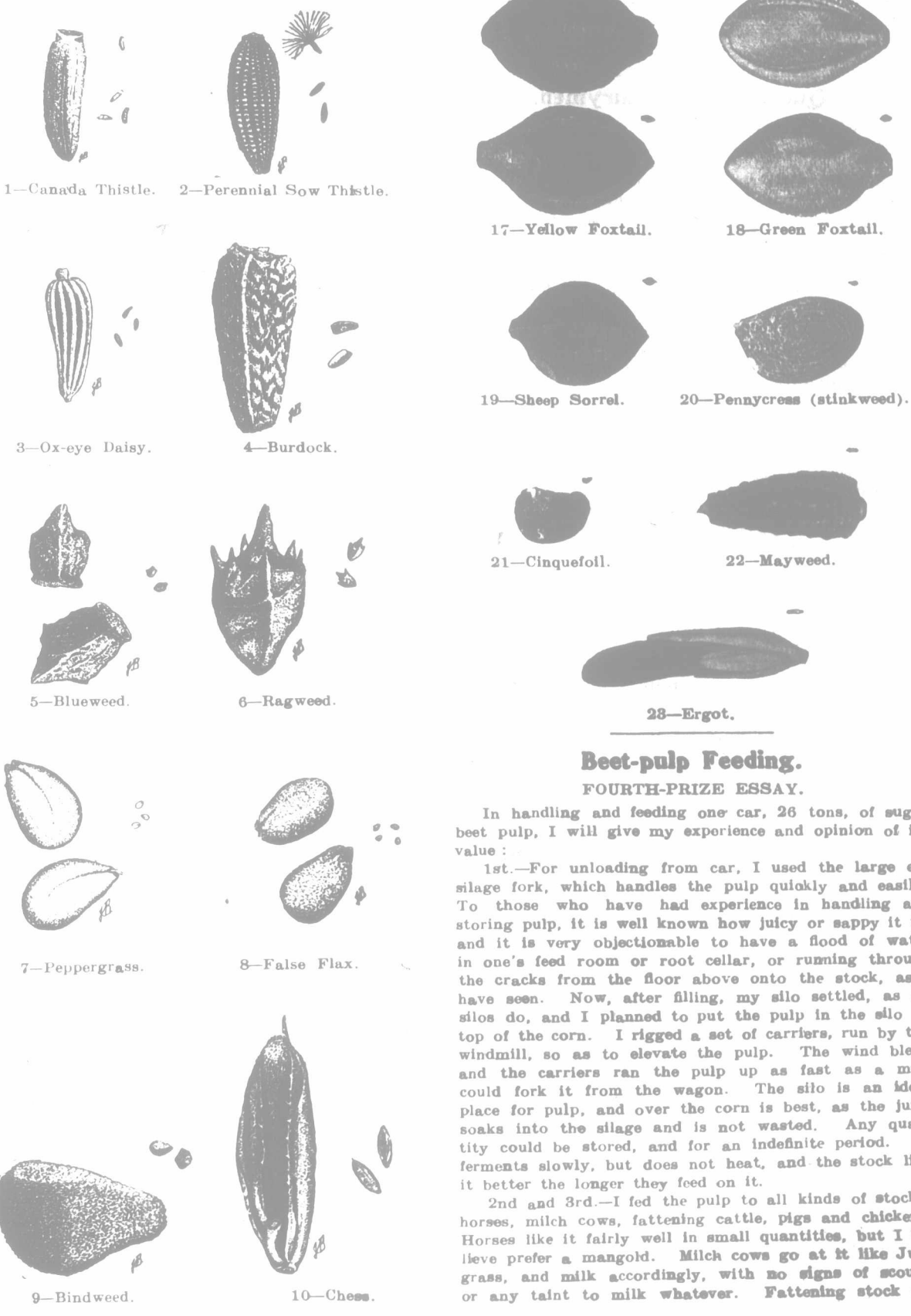
Beware of Weed Seeds.

The first step in the war with weeds is circumspection in purchase of seeds. Especially is this important in the case of grass and clover seeds, although serious infestation may also occur through cereals, notably wheat and oats. Most people utterly fail to realize the chance of introducing weeds in this way. It would be a wonderful eye-opener if every farmer would take a few handfuls of seed of one kind and another, place them on a table, and with a knife separate into piles the good seed, the inferior seed and the impurities. He certainly would be amazed, as we have often been, at the large proportion of weeds that may be present in what appears a pretty clean sample.

In buying seeds, the number of weed seeds is not nearly so important as the kind. Never judge seed by general appearances. Before purchasing a pound of small seeds take a representative sample of the lot, spread out on a sheet of white paper, and with the aid of a small magnifying-glass separate the impurities, noting the kind of each, rejecting the sample if it contains any seeds of the more noxious weeds, and basing your estimate of value upon the result of your analysis.

To aid in identifying some of the common weed seeds, we print herewith reproductions of accurate drawings. The first sixteen cuts have been loaned by the Canadian Correspondence College, of Toronto. The remainder have been especially made for us.

A study of these drawings will assist in familiarizing one with some of the seeds to be avoided. The cuts show natural and enlarged size.



Beet-pulp Feeding.

FOURTH-PRIZE ESSAY.

In handling and feeding one car, 26 tons, of sugar beet pulp, I will give my experience and opinion of its value:

1st.—For unloading from car, I used the large ensilage fork, which handles the pulp quickly and easily. To those who have had experience in handling and storing pulp, it is well known how juicy or sappy it is, and it is very objectionable to have a flood of water in one's feed room or root cellar, or running through the cracks from the floor above onto the stock, as I have seen. Now, after filling, my silo settled, as all silos do, and I planned to put the pulp in the silo on top of the corn. I rigged a set of carriers, run by the windmill, so as to elevate the pulp. The wind blew, and the carriers ran the pulp up as fast as a man could fork it from the wagon. The silo is an ideal place for pulp, and over the corn is best, as the juice soaks into the silage and is not wasted. Any quantity could be stored, and for an indefinite period. It ferments slowly, but does not heat, and the stock like it better the longer they feed on it.

2nd and 3rd.—I fed the pulp to all kinds of stock—horses, milch cows, fattening cattle, pigs and chickens. Horses like it fairly well in small quantities, but I believe prefer a mangold. Milch cows go at it like June grass, and milk accordingly, with no signs of scours, or any taint to milk whatever. Fattening stock are

very fond of it also, and will "fill up" better on roughage with the pulp mixed in than anything I have fed. The cattle were fed pulp three times daily on their straw, after having chaff, turnips and meal, eating all up clean. For pigs, I mixed the pulp and ground grains in a large feed box, and got as good gains as when feeding mangolds in the same way. They eat everything up clean, and their tails begin to curl, which, as Theodore Louis says, is "the thermometer of the hog." When his tail curls he is thrifty and hearty. Pigs were fed three times daily also. Cattle of all kinds eat it with more relish and greed than ensilage, showing their appetite for the pulp.

4th.—The pulp, quantity for quantity, is, in my estimation, fully equal in feeding value to ensilage, mangolds or turnips, and judging from the way stock eat and relish it, they endorse my opinion.

5th.—The only precaution exercised in our feeding of the pulp was at the commencement, giving a light ration until the stock had acquired an appetite for the feed, and later guiding the quantity fed by the state of the manure.

6th.—The value of pulp must be credited, as with other roots, to its succulence, and in helping to assimilate in digestion the dry fodders. In point of succulence it far outstrips any roots, but a ton of pulp would be only about one-half the bulk of a ton of pulped mangolds or turnips. One ton of pulp would feed a given number of stock as long as twenty bushels of turnips or mangolds, with, I am sure, fully as good results either for fattening or milk. Valuing the turnips at the average price of ten cents per bushel would make the pulp value \$2 per ton.

But here we have a remarkable contradiction to the old adage, "You cannot eat your cake and have it." One can grow a field of beets, sell them, and have them for feed besides, the company returning the pulp to the grower at the small cost of fifty cents per ton for freight. I have grown beets and fed the pulp once. I like it, the stock like it, and I shall grow again.

Oxford Co., Ont. ARTHUR L. CURRAH.

DAIRY.

Questions for Dairymen.

1. What is your favorite breed or grade of dairy cows? Give reasons.
2. Do you make the milk into butter on the farm, send to a cheese, butter or condensing-milk factory, sell whole milk or cream?
3. If possible, send us figures telling what cash returns per cow you received last year from the milk of your herd?
4. Can you show the profit derived per cow during the year, by deducting cost of feeding and care?
5. Do you keep a record of what your cows produce in pounds of milk, and do you test it for butter-fat? What is your system, and what are its advantages?
6. What is the best plan to get a profitable dairy cow?

[Concise answers to the above questions can be put in a few hundred words, and we request our dairy readers to send their replies in by the earliest mail convenient. In case you are not in a position to fully answer some of the questions, omit these and deal with the others.]

Carleton County Dairying.

(Ottawa correspondence.)

A second series of dairy meetings, under the auspices of the Ottawa Cheese and Butter Board, has just been completed in Carleton County. Meetings were held at five points, and at each place there were large audiences of farmers assembled. The speakers were N. G. Somerville, Superintendent of Cool-curing Rooms, Brockville, Ont.; Dairy Instructor S. S. Cheetham, of Gananoque, and C. F. Whitley, of the Department of Agriculture, Ottawa. These dairy meetings have done much to raise the standard of the dairy products of Carleton County. Other cheese boards might profitably follow the example of the one established at Ottawa.

Eastern Dairy School Exams.

In all, nineteen students tried the final examinations of the Long Course of the Eastern Dairy School, at Kingston, of which number fifteen were successful. Besides taking the written examinations upon the different subjects, each student had to take a practical examination upon the work in each department of the school. The following is a list of the successful candidates, arranged in order of general proficiency: G. A. Drake, W. A. Stewart, P. R. Best, R. T. Gillespie, Thos. McFadyean, Geo. Coxhill, H. E. Brintnell, W. J. Quinn, A. E. Murphy, S. L. Brintnell, J. R. Ballard, T. J. Ellis, Thos. Folkard, J. W. Smith, and J. Bates.

"I take eight farm papers, but like the 'Farmer's Advocate' best of them all."
T. B. GARNSEY.

Creamery Cold-storage Bonuses.

I am directed by the Honorable the Minister of Agriculture to state that Parliament will be asked to extend the bonus on cold storage at creameries to the year 1905. All owners of creameries, or creamery associations complying with the conditions enumerated below, will be entitled to the sum of \$100, to be paid in three installments, as follows:

(1) Fifty dollars, as first installment, at the close of the manufacturing season of the year 1905.

(2) Twenty-five dollars, as second installment, at the close of the manufacturing season of the year 1906.

(3) Twenty-five dollars, as third installment, at the close of the manufacturing season of the year 1907.

All subject to ratification by Parliament.

To be entitled to the payment of the bonus, the following conditions must be fulfilled:

(1) A suitable cold-storage room must be built, in accordance with the new plans (year 1904) supplied by the Dairy Commissioner's Branch of the Department of Agriculture, or with any thoroughly effective and acceptable plan.

(2) Butter must be manufactured at the factory during the summer months, at the average rate of not less than 2,000 pounds a month, and an accurate statement of the quantities sent to the Department.

(3) The temperature in the said cold storage must be maintained continuously during the summer months under 38 degrees F., and a statement of the temperature recorded day by day on forms supplied by the Department, must be forwarded at the end of each month to the office of the Dairy Commissioner.

(4) All applications for the bonus must be sent in before the 1st of July, 1905. Any application after that date will not be considered.

Plans showing the style of construction recommended for the insulation of the refrigerator, for either the cylinder system or the circulation system, will be furnished free of charge on application to this office. Experts will be sent whenever possible to give instructions on the spot if application is made to the Dairy Commissioner, Ottawa.

J. A. RUDDICK,

Dairy Commissioner.

Two Urgent Needs in Dairying.

In reply to an enquiry we might say that it is not the intention of the Dairy Commissioner, Mr. J. A. Ruddick, to hold a dairy conference similar to those of the past couple of years in Ottawa this spring. However, it will probably be found desirable to have one next autumn. The experience of the season of 1905 in Canadian dairying will then be fresh in mind, and with the actual situation present and prospective in sight, plans can be matured by the leaders in dairy educational work and in the trade, that will have a useful bearing on the convention and dairy school programme of the winter of 1905-6. Mr. Ruddick will probably visit Europe during the coming summer, and will doubtless pick up many fresh points of interest to lay before the autumn conference. With regard to cheesemaking, Canada has won a place of the very best repute in the world's market by methods which are steadily becoming more uniform. From time to time improvements are found needful in some of the details of the process, but in the main it can be pronounced "good."

There are other points, however, that require special and careful consideration, and one of these is the patron end of the business, in order that the milk supply be maintained at a uniform degree of excellence. By advanced factory methods some of the difficulties arising from defective milk can be mitigated, but, once there, they cannot be entirely eliminated, and in the end will work out to the detriment of the industry and the patron. As suggested in last week's "Farmer's Advocate," the factory and the patron might be brought into closer touch through the instrumentality of the travelling instructor, who, in addition to his work in the factories, should visit the farms where the milk is produced.

Leaving out of consideration for the present the question of transportation and fluctuation in prices, probably the weakest link in our dairy chain will be found in the defective curing-rooms. The four Dominion curing stations at Cowansville and St. Hyacinthe, P. Q., and Brockville and Woodstock, Ont., which have served a valuable purpose in demonstration, will be continued this season as before, except that in two of them (Woodstock and Cowansville) the cooling will be done with ice instead of mechanical refrigeration, which, while it gives excellent results, is too expensive for small plants. There is opportunity for most valuable work on behalf of the dairy industry in determining cheap and efficient materials and methods of insulating cool-curing rooms for cheese, and butter factory refrigerators, and we trust that the Dairy Commissioner's work in these directions will be fruitful of practical results at an early date.

Buttermaking Starter.

At the Ohio Dairymen's Association meeting, Mr. C. E. Gammill described his method of making a starter for buttermaking as follows: "I prefer to buy a good pure culture, fresh from the laboratory. I select some good clean milk, perfectly sweet, and then heat it to 180 degrees F., and hold at this temperature for about thirty minutes, then cool down to 75 degrees and put about a quart of it in a glass jar that has been sterilized, and add the pure culture, being careful not to fill the jar so full but that you have ample space to shake, and shake it often for the first hour or two, to be certain that your culture is all dissolved and thoroughly mixed with the milk; then place it in a warm place or bucket of warm water about 75 degrees F., and keep it warm till the milk begins to curdle, when it is ready to put into the milk which has been selected to make the starter, and which has been heated to 180 degrees F., as described. In pasteurizing the milk for the starter we should be very persistent in stirring it; not with an old tin dipper that has a thousand bacteria to the inch, nor with a wooden stick or paddle, but with a metallic stirrer made for the purpose, one that you can keep absolutely sterilized.

"I first select enough milk for the amount of starter wanted, in proportion of one to forty, or a quart to ten gallons; I strain the milk into the ten-gallon cans, and they are placed in a galvanized tank with steam and water connections, and in this tank all my starter is made. After pasteurizing the milk I draw off the hot water and immediately cool it down to 75 degrees F. We have a common Ideal galvanized tank that will hold ten cans. This sits on the operating-room floor, and is just the right height to let the tops of the cans be above the water, and it is convenient to lift the cans out and in; we made a noiseless heater in the bottom of the tank, also laid some pipes in the tank to set the cans on, so that the hot or cold water can get under and all around them. If, in the morning afterwards, the starter does not seem to be quite ripe—that is, thick enough—or has not developed acid sufficiently, we can again warm it and cool it with very little trouble. We find that the lactic acid germs do not thrive or multiply very fast below a temperature of 55 degrees F.

"Now, take a quart of the starter and put it into ten gallons of the pasteurized milk, and stir thoroughly for the first hour; in about 20 hours, holding the milk at 75 degrees, it will curdle and have developed enough acid, and is ready to put into the cream. First, save out enough mother starter for the next day, proceeding from day to day along the same line till your starter goes off flavor. Then be sure to discard this starter and make another, as a poor starter is worse than none.

"Cleanliness will have more to do with keeping the starter in good condition for a longer period than anything else, and must be practiced from the start and kept up till the finish if you can expect good results. I seldom use a starter longer than a week or ten days, even if it may seem to be all right."

Dairying Maintains Fertility.

Professor Curtiss, at the recent dairy convention at Cedar Rapids, Ia., told why dairying maintains the fertility of the farm. He said: "In selling \$1,000 worth of wheat from an Iowa farm at present prices we sell with it about \$350 worth of fertility. In selling \$1,000 worth of corn we sell about \$250 worth of fertility or constituents which would cost the farmer this amount if he were obliged to buy commercial fertilizers to maintain the fertility of the farm. But we can convert \$1,000 worth of corn into beef, pork or mutton and sell it in that form and not remove over \$25 worth of fertility from the farm, or we can convert \$1,000 worth of feed into butter and not remove a single dollar's worth of fertility with it. Butter is almost wholly pure fat or carbon, and it adds nothing to the value or productive capacity of the soil."

Homemade Pasteurizer.

Pasteurized milk can be prepared by the house-keeper, as follows: Put the milk in a small-mouthed glass bottle which has been cleaned with boiling water. Stop the mouth of the bottle with cotton batting or absorbent cotton. Place the bottles in a wire basket, and immerse the basket in a pot of cold water, or a pan can be placed in the pot, upside down, and the bottles stood on it. Heat the water gradually to a temperature of 158 to 165 degrees. Keep the water at the same temperature for about 30 minutes. Remove the bottles, cool quickly, and put them in a cold place. If the milk is to be used at once, it can be given when it has reached a temperature of 98 degrees.—[American Dairymen.]

Hold Fast to the Dairy Cow.

Dairymen who kept up their herds during the past year instead of reducing them and jumping into some other branch of farming, will reap the reward this season which their perseverance deserves. It is hard to see why so many farmers should be always going out of this, that or the other line, at the time of depression, just when prudence would dictate the advisability of stocking up with good cows, so as to be ready for the better times sure to follow. The swing of the pendulum between extremes of price is largely due to the fickleness of human nature, leading, as it does, to unceasing fluctuations in value, caused by alternate over and under production, which in turn is the result of previous fluctuations. The economic disadvantage of such a tendency is serious all round. From the standpoint of our Canadian dairy export business it is a grave detriment, because our customers, failing a regular supply, become switched off onto some other country's produce, and, their taste not being cultivated exclusively for our goods, they do not become willing to pay the premium in price, which might be obtained from fastidious customers regularly supplied with a uniform product of certain flavor and appearance. In local markets again the inconstant supply restricts consumption in times of scarcity and high prices, whilst in periods of glut the producer does not gain much by the free consumption, since the price he then gets leaves little or no margin of profit. If there is any reason to warrant a farmer in changing from one line to another, it would be to get out of the lines that have held high and into those that have been depressed—a reverse of the usual practice.

As a general rule, we believe it pays much better to stick pretty well to the same lines from year to year, except when calculation shows one or more to have been unprofitable for a series of years, in which case it may be wise to work into something likely to give better average returns. One great disadvantage of shifting in and out of dairying is that it necessitates a change of stock, good cows being often sold and inferior ones bought later. Many factory patrons, by the way, change any way, buying, milking and feeding the cows for beef. In our opinion there is only one class of dairymen who should ever do this, viz., those situated on expensive land near a town or city, supplying a retail milk trade. They do not have skim milk to raise the calves, and the whole milk, even if there were a regular supply, is rather expensive calf feed. But the ordinary dairymen should by all means raise his own cows. He has the necessary skim milk—if patronizing a cheese factory he should have a few of his best cows calve in fall, or at least in early winter—and by keeping fewer cows and turning some of his roughage into well-bred dairy heifers, he can make more money, in the long run, with considerably less drudgery, than by keeping only cows. The most objectionable feature of dairying is the daily chores, particularly milking, Sundays, holidays, and all the time. The time spent in milking may be recompensed by the returns, not the slavishness entailed by the keeping of a large stock of milch cows requiring three or four hours' milking a day on the part of each hand. It ties the whole family down. This may be largely obviated by turning part of the feed into good dairy heifers, which, if properly bred and cared for, will be found a convenience, economy, and pleasure.

A still stronger reason for raising one's own cows is the fact that it is the only possible hope of dairy herd improvement, which in most cases is absolutely essential to satisfactory profit. How any farmer, in this day of dairy tests, published experience, and cow census revelations can expect to get a profitable herd going out and purchasing cows here and there, by mere appearance, is hard to understand. Few farmers sell their best cows, and those who do rarely have good herds from which to choose. Every practical man, too, knows that a cow hardly ever does her best when changed to a new stable, under different environment and attendance, so that what, with risks of being "bitten," loss in acoustomizing the cows to new conditions, and lack of opportunity for improvement, systematic purchase to renew the herd is very poor business. The sesame to successful dairying is good cows—much better cows than are common in the country today—and the only way to get them in reasonable numbers is to raise them in one's own herd from the best cows (selected by scales and test) bred to a good dairy bull. Such a system persistently followed enables a man to improve a herd with almost mathematical accuracy, and the possibility of such systematic improvement by selection constitutes one of the greatest advantages of dairy farming. This improvement is impossible to the man who dairies spasmodically, depending upon periodic purchase to replenish his herd.

On the majority of Eastern farms the cow is and will continue to be an indispensable adjunct. In fact, on most farms dairying should be the mainstay. There is a good market for the products of the Canadian cow, but to make the most out of her we must stick to her through thick and thin.

Properly handled, she is a money-maker always, and in times of adversity an unflinching standby. The dairymen who has sacrificed his herd, thinking to find an easier or more profitable road to wealth, will come back to the cow, having gained more in experience than in pocketbook. Stick to the dairy cow.

How to Secure a High Quality of Cheese and Butter.

Producers of milk and cream would serve their own interests to consider carefully at this time the facilities afforded for the manufacture of a first-class product by the factory or creamery which they expect to patronize during the coming season. The Ontario Government has engaged a staff sufficient to give instruction at a very moderate cost—less than one-half the actual outlay—to all creameries and factories which make application at once. If the patrons of cheese factories are alive to their best interests, they will see to it that the proprietor or manager secures an instructor to give monthly visits and point out to the maker mistakes in methods, suggestions as to improvement in quality so as to meet the demands of the market as nearly as possible, defects in equipment, the need for greater cleanliness, the necessity for proper temperature in curing, the proper disposal of whey, etc.

The instructor will also make it his business to test the individual samples of milk, not only for the butter-fat content, but for the detection of undesirable flavors. By taking a small sample from each lot and making a curd test, the instructor is able to detect the lot or lots which are causing trouble in manufacture. He very often finds that trouble arises from milk produced by a patron who has the best of buildings, and is apparently following the most up-to-date methods in cooling and caring for his milk. A rusty can, or one with seams not properly soldered, musty surroundings, proximity to hogpens, etc., may be causes of contamination. Proper tanks or cans in which to gather cream, the assurance that the cream gatherers understand their business thoroughly and are giving each patron proper credit, are of vital importance to patrons of creameries. Instructors will also be prepared to visit the farm and instruct the producers as to the best methods in setting milk for the separation of cream, the running of separators, proper utensils, washing and care of separators, the proper thickness of the cream, the necessity for keeping all cream sweet until called for by the gatherers, etc.

Do you wish to have the services of an experienced man who is devoting his whole time to the work to give advice and instruction to your maker as well as to yourself throughout the season? If so, see that the proper party makes application for an instructor at once. This is a duty which every producer owes to himself, as well as to our most important agricultural industry. If the place which we now hold in the foreign market is to be retained, greater effort must be put forth by both producers and manufacturers to see that the quality of the product is maintained and improved.

Applications for instruction should be made as follows: For places east of Toronto, G. G. Purlow, Kingston; for places west of Toronto, including the Counties of York and Simcoe, G. H. Barr, London, Ont.

Cheddar Cheese Making.

By Prof. A. J. Glover, Illinois.

Milk that has more than .2 of 1 per cent. lactic acid should not be received for cheesemaking.

Unless milk is occasionally stirred while it is being received and ripened, the cream will rise, and by mixing it with the milk again some of the cream will become churned, thereby losing considerable fat in the whey. When the milk is all in the vat steam should be turned on and the milk heated to 86 degrees, and the rennet or acid test made. Milk should be ripened to a point where in two hours from the time the rennet is added the curd will be ready to separate from the whey.

The first day that cheese is made, the maker should make a rennet test and note the condition of the milk. If milk is found to be overripe, the cheesemaker must hurry to keep ahead of fermentation. If milk is too sweet, he will have to wait until the proper amount of acid develops. When good sweet milk is delivered a starter should be used to hasten the ripening. Usually not over two per cent. is needed.

When the milk is properly ripened the rennet extract should be added, about 4 ounces to 1,000 pounds of milk. This is diluted in a pail of water, and is poured evenly into the vat from one end to the other. The water should be at about 86 degrees. The rennet should be thoroughly mixed with the milk, by stirring gently for five minutes after it is added.

The curd is ready to cut when it will break clean before the finger. Curd should be firm enough to cut in 15 to 30 minutes after the rennet is added, into cubes one-half inch square, which is fine enough for slow-curing cheese. The curd must be stirred constantly, or it will soon settle and knit together. It is well to stir five minutes before the steam is turned on; then apply steam, slowly at first, taking about 45 minutes to raise the temperature from 86 to 98 degrees. If milk is heated rapidly it requires vigorous stirring to keep particles from knitting together, and causes considerable loss in the whey. When the milk is over-ripe, the curd must be heated faster and to a higher temperature.

It is difficult to tell when the curd is cooked enough. There should be one-eighth inch of acid in the curd when the whey is drawn. When a handful is pressed together it should not remain in a solid mass, but fall apart readily. An overcooked curd will be tough and corky, while an undercooked one will be soft and mushy

and will not make solid cheese. The whey should show only .2 of 1 per cent. acid.

When the correct amount of acid is developed the whey is drawn and the curd placed on racks in the end of the vat and covered with coarse linen cloth. It should be stirred for a few moments to remove loose whey, and then left to mat evenly, about six inches deep. In about 15 minutes it may be cut into large blocks, which should be turned frequently to prevent the whey from collecting in any part of it.

When the curd is cooled to 85 degrees it can be put in the press. Pressure should be applied slowly at first, but in 15 minutes full pressure can be applied. The cheese will be ready to press in one hour. After dressing the cheese it should be pressed until next morning, when it may be taken out and put in a cooling room.—[American Dairymen.]

POULTRY.

Another W.-Wyandotte Champion.

To the Editor "Farmer's Advocate":

I have read with keen interest the discussion in the "Farmer's Advocate" of the question, "Which is the Most Profitable Breed of Poultry for the Farmer?" The White Wyandotte is the favorite here for the following reasons: First, because they are the best layers in the winter. Second, because they are very gentle, good sitters and mothers. Third, they are the best for fattening purposes, as they are a plump fowl, and can be finished better at an early age than the Rocks, which are rougher and larger, and require to be kept longer.

I enclose the record of twelve pure-bred White Wyandotte pullets for one week, ending March 10th, 1904. During the week they laid fifty-nine (59) eggs, which, at 25c. per dozen, gives \$1.28.

During the week they consumed:

23 lbs. wheat screenings, at 80c. per bushel	25c.
28 lbs. boiled potatoes, at 40c. per bushel	15c.
3 lbs. wheat bran	4c.
1 gallon skim milk	2c.
1 peck raw potatoes, turnips, etc.	6c.
	52c.

making a total cost of 52c., leaving a balance of 71c., or nearly 6c. per hen per week.

These pullets were hatched the latter part of April, and began to lay in November.

They are fed as follows: In the morning, mashed potatoes and bran, with milk to drink. At noon, raw potatoes or turnips, and the dinner scraps. In the evening, they get all the grain they need, thrown in litter on the floor. They also get crushed oyster and egg shells, and all the water they will drink, and always have a box of ashes to dust themselves in.

Last season I raised about sixty pure-bred chickens. The cockerels were fattened and marketed at four months of age, and brought in about 75c. each. These hens are not kept in a warm house, and it could only be cleaned out twice during the winter on account of the manure being frozen. But these hens are the very picture of health. From twenty hens in 1904, I sold \$41.50 worth of eggs.

Now, if any person with Leghorns can beat White Wyandottes, either as layers or for market, let us hear from them. NORMAN C. MCKAY, Pictou Co., N. S.

The Breeding Yard.

The importance of strength and vigor in fowls composing the breeding yard is quite often overlooked or given less consideration than it should receive. Too much attention cannot be paid to selection for strength and vigor. Without this our best varieties of pure-breds would soon degenerate into mongrels of the poorest kind. The selection and mating of strong, vigorous fowls, with some definite object and some notable improvement in view, is what can only properly be called an up-to-date breeding yard.

Farmers, as a rule, do not pay enough attention in the early spring to the selection and mating of their breeding birds. On the thoroughness with which this is done depends the success or failure of the season's work in the poultry yard. Where haphazard methods are followed the results will first be noticed in the low percentage of fertility in the eggs, and later on in the mortality of the chicks, thus causing a double loss in the very beginning. Were, instead, intelligent and systematic methods followed in selecting and mating a pen of a limited number of fowls of uniform size, shape and color, headed by a strong, vigorous male—a pure-bred bird—the results would far exceed the extra labor and expense involved.

The male bird represents half the flock, and should by all means be pure-bred. The females, for best results, should also be pure-bred, but even with a flock of common or good grade hens much improvement can be accomplished by using a pure-bred male. By selecting twelve or fifteen pullets or yearling hens of the best layers, having uniform size, shape and color, and mating with a vigorous male of your chosen variety, a good utility strain may be built up in a comparatively

short time. Working along these lines, the improvement will be gradual and also lasting. The returns from a breeding yard of pure-bred birds will, however, far exceed those from a yard of common fowls, as the eggs can be sold for hatching at very good prices, and the surplus stock disposed of for breeding purposes.

Waterloo Co., Ont. M. C. HERNER.

Leghorns vs. Wyandottes.

To the Editor "Farmer's Advocate":

I notice you give results of a laying competition of the Utility Poultry Club, of England, the last of such competitions being won by White Leghorns. Would you allow me to point out the fact that the Leghorns never enter any competition that I have heard of, unless under the disadvantage of being confined to a yard? It takes half the life out of a Leghorn to deprive it of its freedom, just the same as it does with a turkey. Mr. Parker, in replying to my last letter, tries to show the Leghorns are no good because they are not shown as largely as White Wyandottes. Mr. Parker probably knows that nine-tenths of the chickens at the shows he has mentioned are owned by residents of cities, towns or villages. I was not claiming that the Leghorn was the best for those people. Further, he says because Australia and New York State have mild or warm climates the Leghorns are the best, but Canada is too cold for them. I plead guilty to not knowing much about the climate of Australia, but with reference to N. Y. State, I just wish to quote from an article by Robert H. Essex, a well-known Canadian poultryman in the early nineties, and for many years associate editor of a well-known poultry journal. Mr. Essex is writing about the Columbia School of Poultry Culture, at Waterville, N. Y., and says: "If poultry culture can profitably be carried on at Waterville (looking at it from a climatic point of view), there should be no difficulty in the successful raising of poultry in any cold climate, for last winter the snow covered the bank of one of the brooder houses on the plant up to and over the roof, and the temperature reached 50 degrees below zero within ten miles of the village, and at Waterville it was colder than 40 degrees several times during the winter." This refers to the winter of 1903-04, and I have a distinct recollection of reading that the winter of 1903-04 was the coldest they ever had. Will Mr. Parker please give the Canadian temperature in any place, to which the above can be compared as mild. Would conclude by saying one of the large Leghorn-egg farms I mentioned is situated at Waterville, N. Y.

W. J. BELL.

Simcoe Co., Ont.

Hen Manure as Fertilizer.

Is hen manure better as a fertilizer than the common barnyard manure? If the droppings taken from dropping-board were mixed with the litter and let heat, would it affect the fertilizing value?

Huron Co., Ont.

Ans.—Hen manure in the fresh state contains from 50 to 60 per cent. of water, from 1 to 1.5 per cent. of nitrogen, and about .5 to .7 per cent. each of phosphoric acid and potash. Farnyard manure will contain from 65 to 80 per cent. of water, from .45 to .65 per cent. of nitrogen, from .4 to .7 of potash, and from .2 to .4 per cent. of phosphoric acid. It will thus be seen that, hundred for hundred, the hen manure will contain a little more than twice as much nitrogen and phosphoric acid, but practically the same amount of potash, as farnyard manure. The fertilizing constituents of the former will be a little more immediately available to the plants than that contained in the latter.

Nothing will be gained in mixing the droppings from the dropping-board with the litter. On the other hand, there will be a greater danger of loss on some of the nitrogen constituents.

Ontario Agr. College. R. HARCOURT.

Relief of Crop-bound.

To the Editor "Farmer's Advocate":

I have been watching with interest the items on poultry in your valuable paper, especially on the Leghorn, which, as a rule, head the list of egg-producers.

I wish to tell you of a successful operation my father and I performed on a Minorca which was crop-bound. I had been giving my flock long straw as litter, not having a cutting-box, and as this particular hen ate her food she swallowed the long straw, which rolled up into a ball in her crop, thus preventing anything from passing through, even water. With a sharp knife we opened her crop, took out the water, oyster-shells, gravel and straw, and sewed it up again with silk thread. I fed her on soft feed for a week, then wheat and corn. She is living, and lays well. I would not hesitate a moment in trying the same experiment in a case of that kind.

If you can find space for this it may prove beneficial to others interested in the poultry business.

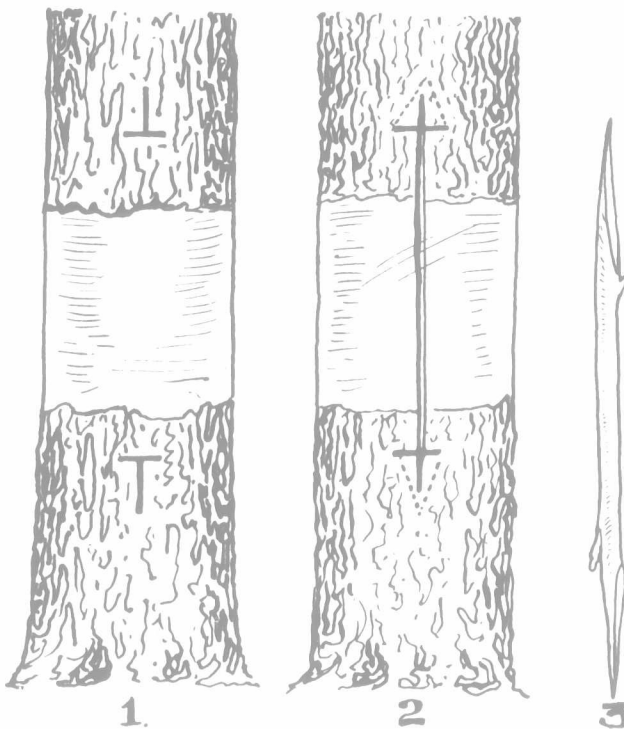
Waterloo Co., Ont.

ALISON A. McINTYRE.

GARDEN AND ORCHARD.

Bridge Grafting.

Enquiries reveal that a certain amount of girdling of fruit trees has occurred again the past winter, though, fortunately, the damage does not seem to be nearly so extensive as a year ago. The accompanying cut illustrates a method of saving girdled trees almost unfailingly. First get some rather long grafting twigs. When the bark begins to loosen on the trees make a T-shaped incision through the bark below, and an inverted T above the girdled space, the horizontal slit in each case to be about an inch from the edge of the girdled part. Cut the bridge-graft about three inches longer than the cross-cuts of the T are apart. If the bridge is a little curving, so much the better. Bevel off the curved side at both ends, say one inch back from each end. Bevel the bark part of the bridge, say half an inch back, by making a cut on each side, so that the end



1.—T-shaped Incision. 2.—Finished Graft. 3.—Scion for Bridging.

may be somewhat three-sided. Insert the lower end of the bridge in the lower T, holding the left thumb under it to prevent it slipping down too far. Keep the thumb there, bend back the bridge and slip its upper end under the bark of the upper incision, pushing up firm, but still leaving a slight curve in the bridge. The curve prevents the bridge drawing out when the wind moves the tree. Wax each end firmly over, and mound up with moist earth as high as the bridges reach. If the girdled band is wide or high up, wrap the bridge with grafting-cloth strips, made by dipping cotton strips two inches wide into melted grafting-wax. If the earth mound is used, remove it about July. If the girdling is all around the tree, use two bridges, one on each side.

Apricot Blooming.

J. T. C., Harley, Ont., asks if there is any way of keeping an apricot tree from coming in bloom so early, as the frost destroys the blossoms in spring. He also wishes information as to spraying.

Ans.—In frosty localities there is great difficulty in getting the apricot to fruit, but if the tree is placed in a somewhat backward exposure the blossoms may be retarded somewhat. This exposure may be created by building a shelter which must not face the West or South, else early blooming and subsequent freezing will be the result. An overhanging cornice built out from this wall, to which matting may be fastened during a cold night, will be found of value in protecting from frost. The most serious enemy of the apricot is the curculio, which must be caught by jarring the trees frequently, early in the morning, the insects being caught as they fall in sheets placed below. This operation should be done every day or so from the time the blossoms fall, as the insects are numerous enough to damage the tree.

J. C.

Always Improving.

Dear Sir,—Having been a subscriber to your paper for a number of years, I must say that it is always improving, especially since it has been published weekly.

Chateauguay Co., Que.

JAMES BRYSON.

Imperfect Cold-storage System.

To the Editor "Farmer's Advocate":

Sir,—In your issue of the 9th instant, Mr. Linus Woolverton has a most suggestive letter on the "Fruit-growing business." He forcibly impresses the fact that fruit-growing is not all sunshine. The truth appears to be that the business is more hazardous than ordinary farming, and the opportunities for losing money, as well as for making it, are correspondingly great.

I would specially commend his suggestion, that fruit-growers unite in co-operative selling associations. It will be impossible for grape-growers, or growers of any other kind of fruit, to fix a minimum price until they have a fixed and consolidated organization that will stand behind these prices. The very first step towards fixed minimum prices is to organize so as to get a personal bond of some kind from each grower, or, at least, a large majority of them, so that they will be forced to stand by the prices fixed by the co-operative body.

Fruit-growers should also take to heart his suggestions with regard to cold storage. That the cold-storage system as used at present is imperfect is evident. The only part of the system that is thoroughly inspected and about which we can speak with confidence is the cold storage and ventilated chambers on board steamers plying between Montreal and St. John and the ports of Great Britain. Much of the fruit is examined as it goes into the chambers of the steamers at Montreal and Halifax, and its condition is a matter of record made by men who are thoroughly competent and who can have no personal motive for partiality. The temperature of the chambers is tested independently by officers of the ship, and also recorded automatically by thermographs that are never accessible to the officers of the ship. These records are compared and filed at the Department of Agriculture, Ottawa, where they may be consulted at any time.

These records show that of the 35 or more steamers having cold storage or ventilated chambers, none made any serious failure the past three years. The slight lapses from perfection have been so few that we can confidently say that the safest period in the life of the fruit, from the time it matures until it reaches the consumer, is on board ship.

This naturally turns our attention to the other links in the transportation chain, namely, the refrigerator cars and cold storage as it is used on the fruit farms. At the present time there is little or no supervision of refrigerator cars carrying fruit, except that made by officers of the companies, and there is at least a doubt as to whether all the conditions of first-class transportation facilities are furnished by the railways, but we cannot speak confidently upon this point until such time as we have independent inspection by Government officials.

We now come to the use of cold storage upon the fruit farms, and here we can speak with some confidence, because not one fruit-grower in a hundred has any facilities whatever for cooling his fruit before placing it in the refrigerator or ordinary car. Here is a real and glaring defect in our transportation facilities, the remedy of which lies with the fruit-grower himself. Improvement in this matter would do more than anything else to ensure the quality of our fruit when landed upon the English markets. It is, therefore, incumbent upon the fruit-growers of Canada to provide for themselves an efficient means of cooling, and packing while the fruit is cool in proper packages the fruit which they deliver to the transportation companies; and until such time as we do this, it is with poor grace that we criticise the suspected failures of the railways or the facilities of the Canadian steamship companies, which I have no hesitation in saying are better for fruit than those that leave any other Atlantic ports.

A. McNEILL,
Chief, Fruit Division.

Ontario Vegetable Growers Organize.

At an organization meeting at St. Catharines, the Vegetable-growers' Association, of Ontario, was formed, with a provisional directorate comprising those present at the meeting and a board of officers consisting of President, Mr. Emery, Aldershot; Vice-Pres., Jos. Rush, Humber Bay; Secretary-Treas., H. B. Cowan, Toronto. The three executive officers were appointed a committee, with power to add to its numbers, to interview the Minister of Agriculture, (1), for a Government grant; (2), to ask that the Provincial Fruit, Flower and Honey Show be extended to include exhibits of vegetables; (3), that the Professors of the O. A. C. should be instructed to carry on investigations in regard to insect pests which are a source of trouble to vegetable growers.

The objects of the Association, as set forth in the constitution, are educational. The secretary informs us that there are already fifteen or twenty local associations throughout the Province, most of which intend joining the Provincial Association immediately, on a basis as suggested by the new body.

Hints on Strawberry Growing.

Strawberries succeed best on rich, well-drained soil which will not bake easily. Thorough preparation and heavy manuring will give best results. Seldom, if ever, are strawberries too heavily manured. There are many systems of growing plants, but for those who are not strawberry growers and even in most cases for those who are, the matted row is the best. Plant early in the spring when the soil is ready, setting the plants from eighteen inches to twenty-four inches apart in rows three and a half to four feet apart. Give thorough cultivation during the growing season. The looser the surface soil is kept the better the results will be. Place the runners, if possible, so that they will be evenly distributed in the row. If the plants are kept at least six inches apart the results will usually be better than if closer. Mulch lightly just before winter sets in, and after the ground is frozen cover with coarse straw or marsh hay. Frequently this will save the plants in thawing and freezing weather without snow on the ground, when otherwise they would be killed. Remove mulch in spring before plants begin to grow and place between the rows. It may smother the plants if left too long.

As varieties for home use, we would suggest Bubach, Greenville, Lovett and Beder Wood as among the best. Williams, which is probably grown more than any other variety for long-distance shipment, came twenty-ninth in yield in the four years' average, at the Central Experimental Farm. It is, however, one of the best for this purpose.

The Sample (imp.) is undoubtedly another of the best commercial strawberries on the market. It is very productive, handsome, and uniform in shape. Fruit large, bright to rather deep glossy red and moderately firm. Season medium to late. Quality, medium. Although not generally known, the Buster (imp.) is another fine variety. It is very productive, and the fruit, which is large, maintains its size well to the end of the season. The color of the fruit is pale glossy red, much like Clyde in appearance. Moderately firm. Quality above medium. Season medium to late. Foliage very good. Warfield (imp.) is one of the best of the older varieties, being very productive and attractive deep red in color. It is one of the best kinds for canning. The foliage is inclined to rust sometimes, a fact which is somewhat against it. Glen Mary (Perf.) has for years been one of the most productive varieties with us. It combines great productiveness with very large size of fruit, the fruit remaining large until the end of the season. Fruit very large, rather irregular in shape, bright red, moderately firm. Quality medium. Season, medium. The irregularity of the fruit is somewhat against this variety. W. T. MACCOUN, Horticulturist, Central Experimental Farm.

Orchard Cover Crops.

(Ottawa correspondence.)

Speaking about the management of orchard soils before the Agricultural Committee of the House of Commons the other day, Prof. F. T. Shutt, Chemist at the Central Experimental Farm, Ottawa, said that for several years he had been carrying on investigations in the orchards at the Experimental Farm, with a view to obtaining data as to the relative efficiency or merits of different methods of soil management. He had in view three essential features: The economic maintenance of the fertility of the soil, control of soil moisture at different seasons of the year, and the provision of a suitable cover crop to protect the roots of the trees during the winter months. One experiment was conducted to ascertain the relative merits of cultivation, as against mulching, for the control of the soil moisture. He had in view the retention of the soil moisture during the early part of the season for the trees' growth; that is, from the date of opening of the season until from the 1st to the 15th of July, and then from that on he endeavored to reduce the soil moisture in order that the tree might thoroughly ripen its wood before entering upon the winter, and thus be protected from killing by frost.

As a result of the experiment, he said he was satisfied that the proper method is to cultivate the orchard soil during the months of May and June, and then sow a cover crop, preferably one of the legumes (clover, peas, etc.) about July 1st or 15th. The growth of this crop has the effect of reducing the soil's moisture, and at the same time provides a mat of growth which restores the humus and nitrogen of the soil, and furnishes material which serves to hold the snow during the winter, and thus protects the roots of the trees.

He referred to hairy vetch as unsuitable for mulching, due to the fact that although it may survive the winter, when it is once cut in the spring it does not throw up any aftermath, but dies. He advised the sowing of crimson clover in the Niagara district, and mammoth red, the long red variety, in Eastern Ontario. Sow the clover in the orchard from the 1st to the 15th of July, and leave that crop alone until the following spring or some time in May, then turn it under and keep the ground well cultivated until about the 1st or 15th of July, and then sow again. By following this method the farmer controls the moisture of the soil, retains and adds to its fertility, and at the same time provides something that will hold the snow

during the winter. Prof. Shutt said that hairy vetch is the next best legume to clover for a mulch crop in an orchard. It would not stand cutting, but he did not consider that a serious objection, providing the method as for clover was followed. He pointed out that soil kept under sod loses very much more moisture than it would do if it was kept cultivated and sown with a cover crop. Neither should a cereal crop be grown in the orchard, owing to the fact that it seriously depletes the soil's moisture.

He reported the results of an experiment growing buckwheat and rye in an orchard. He found that from 100 to 120 per cent. more moisture was lost per acre where buckwheat and rye was grown than where the soil was kept well cultivated. He advised sowing the cover crop in drills rather than broadcast, and said that the harrow should follow the plow immediately after the cover crop has been turned under.

Speaking about fodder corn grown in hills and drills, he said that the fodder is slightly more valuable when the corn is grown in hills. It has more ears. The Dent varieties gave three tons per acre more than the Flint, and he referred to the Longfellow as the best Dent variety. He said corn should be cut when it commences to glaze. At that time it contains the largest amount of nutrient, and at the same time the best composition as regards digestibility. If cut later it becomes hard, and to some extent impaired in its feeding value. If cut before reaching the glazing stage the corn is watery and not valuable as food. He pointed out that frozen corn should be put into the silo immediately after freezing. If it is wilted very much on account of the frost, pour in some water so that it will pack tightly. In reply to a question, he said that the feeding value of corn is not injured because it gets smashed up in a blower. The finer it is the closer it will pack, the less air and fermentation and the less loss in the silo.

The K. L. Mixture.

A new spraying mixture is the kerosene-limoid (K-L), which is simply a mixture of hydrated lime and water. Limoid is dry-slacked magnesian limestone, prepared by grinding, dry-slacking and sifting good stone lime, which should contain less than five per cent. magnesia. The mixture makes a covering on the tree resembling thin whitewash. Kerosene is the killing agent.

A method of dry-slacking lime was suggested recently by Prof. M. B. Waite, of the Department of Agriculture, at Washington. The stone lime is broken into small pieces, and a small portion is put into a wooden box; upon this lime is sprinkled a little hot water, and when slacking is nicely started the balance of the lime is poured in and some kind of a cover is thrown over the box to keep in the heat and steam, which cause the entire amount of lime to slack into a dry impalpable powder. This should be carefully sifted through at least a 40-mesh sieve, and it is ready for use.

To make K-L, the kerosene and lime in proper proportions are thoroughly mixed together in a thin, sloppy mass, and should any kerosene separate out, a little more lime must be added. One pound of lime will take up or absorb one quart of kerosene, and in this proportion the mixture should always be made; that is, four pounds of lime to one gallon of kerosene. The required amount of water is then added to dilute to the desired strength, and the whole mixture is at first stirred with a paddle to throw all of the "sloppy" mass into suspension in the water. It is then agitated violently with the spray pump and hose for from three to five minutes, depending upon the form of lime used. This is necessary to form an emulsion, out of which the oil will not separate. It is best to have an extra barrel in which to mix the kerosene and lime, unless the top of the spray pump barrel is easily removed. Pour in the kerosene, add the lime and stir with a paddle until they are thoroughly mixed. Add a few gallons of water and stir again, to throw the "sloppy" mass into suspension in the water. Pour this into the spray pump barrel, add the balance of the water, and pump back into itself for from three to five minutes. Like all other mixtures, this should be agitated while being sprayed.

The mixture may be prepared in widely different strengths. The following formulas show the amounts of the various ingredients for different strengths of the mixture:

	Kerosene.	Lime.	Water.
For 10% K-L use.....	5 gals.	20 lbs.	44½ gals.
For 12½% K-L use.....	6¼ "	25 "	43 "
For 15% K-L use.....	7½ "	30 "	41½ "
For 20% K-L use.....	10 "	40 "	38½ "
For 25% K-L use.....	12½ "	50 "	34½ "

After standing, the lime holding the kerosene settles to the bottom of the vessel. This does no harm; agitate and the mixture is as good as ever. If standing more than a day or two, the bulk will be decreased by evaporation of water. This may be restored by addition of more water.

K-L is an insecticide for sucking insects only, and is especially recommended to combat San Jose scale. For combined insecticide and fungicide, a K-L-B mixture may be made by simply using Bordeaux mixture instead of water. By first adding Paris green to the Bordeaux, a K-L-B-P (kerosene-lime Bordeaux-poison) mixture is made. This is

theoretically supposed to be a panacea for all orchard pests.

For use during the growing season, it is safe to apply 10-per-cent. K-L to apples, pears, peaches, cherries, quinces, currants, etc., and from tests made, it seems safe to recommend 12½ per cent. on all these fruits, and 15 per cent. on apples and pears, to combat San Jose scale. A slight leaf injury may follow, but is preferable to the injury caused by the scale. In the dormant season, a strength of 25 per cent. has been used on plums, pears, peaches and apples. Though the K-L mixtures have been tried only one season at the Delaware Experiment Station, from a bulletin of which this account is condensed, it promises to prove very effective in combating scale. It has aroused much favorable discussion, and more extensive tests are likely to be made this season.

The Fruit Institute Addresses.

The branch of the series of fruit institute meetings, conducted by delegates A. E. Sherrington, Walkerton; and P. J. Carey, Dom. Fruit Inspector, opened March 22nd, at Ingersoll, with a four-hour afternoon session. Mr. Sherrington, the first speaker, gave an excellent practical talk on orchard culture, concluding with a plea for co-operation in marketing. The aim of the fruit-growers, he said, must be to produce a larger percentage of a better class of fruit. The first essential is thorough cultivation, and giving the trees the full use of the land. In a young orchard hoes and clover may be grown, but never grain; in the bearing orchard we should look for nothing but fruit. Apples from an orchard in sod, may be better colored, but they will not have the size, and the trees will not produce nearly so well as under cultivation. General planting of large orchards was not advised, but we should take better care of the trees we have.

We must attend to the pruning; nature can prune a forest, but not an orchard. Spring pruning was advised, to save time and also plant food that would otherwise go to produce the growth lopped off. The speaker advised cutting large limbs when necessary in early spring, painting the wounds a few days later. Use a fine-tooth saw, with teeth on one side only, and cut close to the main limb that the wound may heal more quickly. Avoid cutting large limbs if possible, but remove them if in the way of cultivation. The saw is necessary in most Ontario orchards, because the use of the knife has been neglected. In pruning young, newly-set trees, leave three or four arms, never two. In older trees, cut out all cross-growing branches, and aim to have the bearing wood evenly distributed throughout a symmetrical head. Try to have the branches starting out all around the tree, and don't cut the heart out of the top. Some varieties, such as Spies, won't stand it at all.

Try to produce six or eight inches of new wood growth each year. To retard growth withhold nitrogenous fertilizers, supplying phosphoric acid and potash instead, so as to induce fruit production.

Heading in of young apple trees was advised. In doing so do not cut back past the last season's growth, else water sprouts may grow out around the wound. Cut so as to leave a bud at the end of the pruned twig. The common Ontario system of pruning is to trim the limbs up clean and leave a small bushy top. This is wrong. The fruit spurs should be distributed throughout the tree. After pruning, take the ladder and clippers and thin out the small wood. Prune annually, but do not hesitate to use knife or clippers any time during the season. Supply the tree with the three main elements of fertility—nitrogen, phosphoric acid, and potash. Nitrogen enters largely into wood growth. Phosphoric acid is abundant in the seed. Large drafts of potash are made on the soil by a bearing orchard, for both wood growth and fruit. Barnyard manure supplies the three, nitrogen usually in excessive proportion. Supplement it with 30 or 40 bushels per acre of ashes every alternate year; this will supply potash and a little phosphoric acid. Bone meal or ground phosphate rock will provide more phosphoric acid. If ashes are unobtainable, use muriate of potash. By using these mineral fertilizers, and plowing under clover to supply nitrogen, barnyard manure may be largely dispensed with. In reply to a question, good ashes were worth 25 cents a bushel, if they could not be bought for less.

"Will heavy winter manuring or mulching delay the buds in spring?" was a question answered with an emphatic negative. There is sufficient sap in the tops to start them into growth, and warm weather will force them out, whether the ground is frozen or not. Cultivate, first, to conserve moisture. Mulching would do this also, but cultivation is preferable, because it keeps the feeding roots at a safer distance below the surface. Cultivation also liberates plant food, and lets the heat and air down into the soil.

Mr. Sherrington outlined his own system of orchard cultivation. He plows early in spring, as soon as the ground is fit to work, harrowing the same afternoon with the harrow, to compact and pulverize the soil. After this frequent use of disk and smoothing harrow until the first of August induces a vigorous tree growth. Cessation at this period checks wood growth and allows the wood to mature well before winter. He used to sow a clover cover crop in August, but has been obliged to stop doing so, as the orchard was getting so rich, especially in nitrogen, that it was growing too much wood. Since breaking up the sod

in his orchard and adopting this method he has always had good paying crops.

CO-OPERATION.

In selling the fruit, co-operation enables us to get the best prices, though co-operation cannot get first-class prices for cull stock. By co-operation we cannot only obtain better prices, but we can get the grower interested in his products till they are in the consumers' hands.

In the co-operative society at Walkerton, a central packing-house has been established; an expert packer is engaged, also a manager. Apples are picked, emptied into barrels, gently packed, and hauled in hayracks well filled with hay. At Walkerton last year some were hauled 10 miles.

Barrels should be cared for and kept clean. Reaching the market in tasty condition they will realize an extra 25 cents a barrel. Some evaporator, cider or vinegar factory should be established to utilize culls. At Forest last year these were sold to an evaporator for a sum which paid 8 cents on each barrel of fruit shipped.

Each member's fruit is packed separately, and credit given on the books for the number of barrels of each grade. All except 300 barrels were sold f. o. b., and when the books are balanced it is expected to realize about \$1.00 a barrel. Seventy-five per cent. was paid at once, and what was left of the remaining twenty-five was subsequently divided.

"Stop the commission business," said Mr. Sherrington; it is unbusiness-like and ruinous to shippers. Once we get these co-operative packing companies established, and purchasers know we are producing a large quantity of good well-packed fruit, we will sell our fruit easily and get much better prices. Within the next five years he expected the whole apple crop of Ontario to be handled by these societies. The secret of good prices is uniform grade of honest goods.

Packing may be done in any old building that will keep the apples dry. At Walkerton they hired help by the day. Barrels cost 41 cents, packing would probably figure out to less than 15 cents. There were 55 members.

Mr. P. J. Carey, Dominion Fruit Inspector, gave a general talk, answering many questions. Last year, in a trip out West, he found the dealers very hard on Ontario fruit men, who were said to be all rascals. He had returned the compliment, by telling them we regarded them as all thieves. After threshing the matter out in a meeting, a great deal of the blame was laid at the door of the transportation companies. Subsequently, through the appeal to the railway commission, concessions were got, amounting in the case of car lots of small fruits to \$30 a car.

The Northwest will never be much of a fruit country, and we have a growing market open to us there. Co-operation is the means of making the most of it.

He advocated boxes for choice fruits. They should be desirable for the Northwest trade. Cost is about the same, proportionately, as barrels—about 11 cents a piece. At Walkerton they cost about 13 cents. Boxes pack more closely, and, being light, are handled more carefully; transportation rates per bushel of fruit are slightly less than in barrels. Barrel timber, too, is getting scarce and high, so that there will be an annually increasing economy in boxes. Kings, Blenheims, Spies, and all the choicest fruit, should be carefully packed—tired, not simply faced—in boxes.

The meeting throughout was largely of the nature of discussion. Among other speakers, Mr. Thompson, a local apple-buyer, joined with the speakers in advising co-operation, stating that it had for years seemed to him the only satisfactory way for the farmer to realize on his apple crop.

DELEGATES JOHNSON AND GIFFORD.

Another branch of the series of meetings was conducted by Delegates D. Johnson, of Forest, President of the Forest Fruit-growers' and Forwarding Association, and A. Gifford, of Meaford. One of the points included in their tour was Iderton, where a special interest was evinced in co-operation, which had been tried in this locality the past summer with fairly satisfactory results. Speaking here, Mr. Johnson opened with an account of his own extensive experience in orchard culture, especially spraying. From his account the striking statements about the Johnson orchard, published in our issue of March 23rd, were rather under than above the mark. In their location along the lake they have found spraying an absolute necessity not only for apples, but also plums. Many convincing instances were cited. About twelve years ago, one season their plum crop was almost completely destroyed by black rot. The next year they sprayed thoroughly, and sold about 1,200 bushels, at \$2.25 a bushel. They have found spraying an almost complete preventive, whereas from a number of trees, situated on a hillside where spraying is impracticable, they never expect any good fruit. The plums are sprayed for black rot and curculio. The apple orchard is sprayed about five times a season. Last year they spent about 14 weeks' time in spraying. They commence in April with copper sulphate solution, 2 lbs. copper per barrel of water. Just before the blossoms open Bordeaux is applied, 4 lbs. copper and 4 to 6 lbs. lime, with 4 ozs. Paris green added. Some tender foliage varieties are sprayed differently. For instance, on Fall Pippins they use only 2½ to 3 ozs. Paris green. For codling moth, spray promptly after the blossoms fall. About 80 per cent. of the worms that affect the apples get in during the first ten days after the petals fall, before the fruit has become waxed and is to turn over. Spray early so as to fill with wax the little pocket on the top where

the blossom end is closing up. All the cause of dissatisfaction with the results of spraying comes from not doing the work intelligently, thoroughly and at the right time. He had found that, even with Spitzenburgs, Snow apples and others, from which they had given up hope of ever having clean fruit, a season of thorough spraying worked wonders. Asked whether he banded trees for codling moth he replied, "No, we simply spray."

Mr. Johnson's remarks on co-operation covered much the same ground as the article in the "Farmer's Advocate" above referred to. He laid special stress upon the necessity of sending a competent salesman out to introduce the brand. The Forest Association now have a business connection and reputation which constitutes a valuable stock-in-trade. He also advised a limited membership, as those with inferior fruit, poor varieties, and mostly seconds, were a detriment to any association. It is unfair to link up a poor grower with a good one. Spraying and proper care of orchards should be insisted upon all round.

In the matter of barrels, the scarcity in 1903 decided the growers to go out and buy the material for barrels early in the season. This they did, getting heads one place, hoops another, and staves somewhere else. They had them made up at home by a skilled cooper anxious to make a reputation with the association. The barrels cost 28 cents, and were the best ones Mr. Johnson had ever used.

Some discouragements were met at various stages all through the season, but by sticking to it and doing the best they knew how all along, co-operation panned out very well in the end, and at least fifty cents per barrel more was realized on the average than would have been otherwise obtained. The salesman met keen opposition out West in soliciting orders; as buyers were sceptical about the goods, as they had been so often deceived. Consequently, after the initial orders were filled, apples began to pile up in the warehouse, until the first lot reached the purchasers, when orders began to pour in by telegram, proving that there is a good market out West for the right class of goods honestly packed.

Grading was done by girls, at \$1.00 per day, \$1.50 when working evenings. Although inexperienced and slow at first, they gradually became expert, so that an ordinary fruit-grower, had he been privileged to do the packing himself, would have been obliged to work for about 75 cents a day, to put it up as cheaply as was done in the packing-house.

A shipment of crab apples had been sent out West, but owing to delay through the transportation company, it did not arrive in good condition. By means of a provincial cold-storage system, crabs should find a good market out West. At Forest they expect this year to pack Duchesse, Astrachans and some other fall varieties in boxes.

To a question whether he had found a desire among co-operative associations to confederate, Mr. Johnson answered yes, and Chief McNeill, of the Ottawa Fruit Division, was willing to assist in advertising the movement in the Old Country, with a view to inducing buyers to come here and purchase f. o. b.

In organizing a co-operative society, select the directors, leaving them to choose officers from among themselves. In forming the association, be careful to include only good fruit-growers, and let all members stand by the directors. Work patiently along, and do not expect everything to be perfected the first season; be content to profit by experience. Those who rush into co-operation as a bonanza are not the kind of members who are wanted. Far better to begin with a few men and grow, than start with a hundred and dwindle. Better a dozen good co-operators than a hundred indifferent patrons. It was advisable to procure a charter. Last year at Forest the directors financed the association at first by giving note to the bank for some \$350, which kept things running till returns began to come in.

Mr. Johnson believed that co-operation would become a general system. Mr. Monteith, Minister of Agriculture, was favorable to the co-operative packing-house system, and anxious to further it. Apple dealers were getting on to the advantages of central packing, and had approached him to go in with them and form a joint stock company, so as to make some money out of the growers, instead of a mere salary. Farmers should take the hint.

Mr. Gifford's practical address on orchard culture was abbreviated for lack of time. Among many other points, he advised planting all varieties, even self fertile ones, in alternate rows. The fruit will be better formed as a result of cross fertilizing. He had a good word for the Ben Davis, which, grown on rich, deep, dampish soil, was not a bad apple at all. Part of his orchard was on a blackish swale, and between Ben Davis here and on the hillside there was no comparison. A caution was offered against grafting a fast-growing scion on a slow-growing stock. It would fruit well, but would be liable to outgrow the stock and break off. Give the orchard the benefit of all the fertility in the soil, and more besides. Use ashes, and to supply humus grow clover. He preferred cultivation to mulching. Spray, and spray early, before the buds swell. If possible, give another application just before the bloom comes out.

Apple-growing pays, and co-operation will make it pay better. Last year, while thousands of barrels of fruit was wasting in Ontario, people in the Northwest were hungry for fruit, and buying apples at 3, 4 or 5 cents a pound.

Iderton growers will co-operate again next year, the

results of last season being, on the whole, satisfactory. It is possible that a system of co-operation in selling may be worked up among various local associations.

APIARY.

The Farmer and His Bees.

Of all the live stock with which the farmer has to do, there is none about which so little generally is known by the agricultural fraternity as that most industrious of all creatures, the honeybee. Many farmers keep a few "boxes" of bees to supply their own tables with honey, and keep them in such a way that they obtain about the poorest possible returns from them with a maximum amount of labor, and have little more control over their bees than they have over the wind that blows the apples off their trees. This condition of affairs is often traceable to the fact that the farmer "got started" keeping bees in this way, and it has, perhaps, never been suggested to him that he put his bees on a business basis, as he keeps or should keep the rest of his stock. Frequently the start is made by the farmer or some member of his family catching a runaway swarm which has absconded from a neighboring apiary or somewhere, and which happens to come onto the premises and is hived somehow or other—not one who has had the experience can generally remember afterwards just how he did it—in an old nail keg, soap-box, hen's nest, or whatever apparently most suitable thing the captor of the runaways may happen to fall over in his excitement. He probably gets a fair average number of stings during the "hiving" ceremony, and sets his prize in the orchard until fall, when, if he decides to winter the bees, they are carried into the cellar and occasionally come out well in the spring, if they have been so fortunate as to have secured sufficient honey the previous summer to supply them with food during the winter.

Up to this point the budding apiarist has done very well, and about all that could be expected of anyone who knows practically nothing about bees except that they can sting and "make honey"; but right here is where he should begin to make a proper start in a proper way. Nineteen out of twenty farmers who have "got into bees" in this way, or by buying a box-hive from a neighbor; or finding a bee-tree, when the result is about the same, seem to think that they have no money to spend on bees, that it would not pay them to do so, and that they can get all the honey they want without expense by letting the bees run themselves. Perhaps they can; but they will find it an utter possibility to control their bees in any way while they adhere to the soap-box method of management, and a small expenditure will enable them to secure more than enough extra honey to pay for the outlay, to produce a very much better article of honey, and what is more to the point, to have their bees almost as much and as easily under control as they have any of their other stock.

E. F.

THE FARM BULLETIN

Water is to be taken from Canada for an irrigation scheme in the State of Montana.

Two thousand British immigrants arrived in Toronto during the ten days previous to March 29th.

A by-law to bonus a canning factory carried at Belleville, with only one vote in opposition.

United States farmers are warned by the Secretary of Agriculture that their wheat fields are failing.

The Iowa Agricultural College will make instruction in road-making a special feature of this season's work.

Largely through the initiative of King Victor Emmanuel, of Italy, the proposal of David Lubin, of California, has taken preliminary effect at Vienna, in the organization of an International Chamber of Agriculture, to fix and control the prices of grain.

The annual meeting of the Ontario Good Roads Association will be held in the Council Chamber, old Court House Building, Adelaide St. East, Toronto, Wednesday, April 12th, at 2 p.m. Reduced fares on standard certificate plan. Address, Secretary J. E. Farewell, Whitby.

"Old, exhausted rhubarb plants may be rejuvenated. They are dug up and the roots cut in pieces so as to leave an eye to each piece. If these are planted out and given good culture they will again be productive. A hill may be forced in the spring by placing a headless barrel over it. The leaves will quickly come to the top of the barrel, and the stems, though long and slim, will be of good quality."—[Prairie Farmer.]

Consumptives need fresh air, sunshine and cheerful occupation. They should eat nourishing food, but not excessively; should drink plenty of pure water, except at meal-time; should refrain from use of tea and coffee; should bathe regularly, and should give every care possible to the rules of hygiene. Consumption is conveyed from one person to another through germs coughed up by the persons and spit out of the mouth, thus becoming dried, and as a dust floating in the air, being drawn into the system by breathing. Therefore great care should be exercised in disposing of this sputa.—[Green's Fruit-grower.]

Seed Corn Testing.

To the Editor "Farmer's Advocate":
 Sir,—I have just read an article in your March 30th issue, on seed corn, by Mr. L. H. Newman. His note of warning with regard to the condition of seed corn is timely and to the point; but his method of testing seed corn, to my mind, is quite too intricate, and quite unnecessary. Farmers, by all means test your seed corn. Even if you have saved your own seed and have it hanging up in the corn-barn or kitchen, TEST IT.

In the first place, if you are buying seed corn, BUY IT IN THE EAR, even if you pay twice as much per bushel for it. You will then have some idea of what you are buying; when shelled, you have no idea. Half of the ears from which this shelled corn came may have been only nubbins; it is not at all likely it has been from selected ears. Then, if there are any ears that do not suit, you can throw them out and feed to hogs or chickens. Don't be afraid to do a little culling if not up to the mark. When you have got your one, two or three bushels of ears selected, then pick out 12 or 15 average ears—20 if you like—shell these and mix thoroughly, and then count out 100 grains in duplicate and put them to test, as described by Mr. Newman, or in a pan with three inches of good soil kept moist and warm. To keep moist cover pan with a moist woollen cloth. If kept warm at 60 to 70 degrees, it will germinate in four or five days. The sooner the corn the quicker it will start. When germinated, count out the number of good germinating grains out of the 100. You then have the per cent. of germination. If the first test is not satisfactory make a second test. I have known a second test to give entirely different and better results than the first. Don't take anybody's word as to the germinating quality of any corn. Don't leave this work till a few days before planting; do it now. Don't think you can test by the appearance of the corn, even on the ear, as to how it will grow; you can't tell anything about it, especially the product of such seasons as the past two or three years. During my tour last winter attending Farmers' Institute meetings, I did not meet a single farmer who had taken the trouble to test his seed corn, but I met any number who had planted twice and then got no crop. I also was shown many samples of shelled seed corn that I would not plant upon any consideration. In my humble opinion they sow nothing more than good crib corn, shovelled into a corn sheller and then bagged up. There has been thousands of bushels of corn sold for seed in this country that was nothing more or less than good elevator corn. If some fellow came along and bought a cow from you for \$50, and he handed you a roll of bills, saying there is your \$50, would you put this in your pocket and not count it for two or three weeks? You are doing this, practically, when you buy your seed corn, take it home, and plant without testing. TEST YOUR CORN.
 J. S. PEARCE.

Mr. Beith's Hackney Sale.

The dispersion sale, on March 29th, of the Waverley Stud of Hackney horses, belonging to Mr. Robert Beith, at Bowmanville, Ont., brought together a very large and appreciative company of admirers of this grand class of harness horses. The weather was delightful, the horses were an exceedingly attractive offering, and Mr. Beith's sound judgment and commendable enterprise was rewarded by the presence of liberal buyers from many parts of the Dominion and the United States. No expense was spared in making the visitors comfortable, a large tent being erected, decorated with the Union Jack and Stars and Stripes, for use as a sale pavilion in case of unfavorable weather, and a sumptuous luncheon provided. With the sale-ring and surroundings well covered with shavings, and the horses brought out in the pink of condition, nothing was wanting to ensure the success of the sale, as buyers were there with no narrow notions of the value of this splendid class of carriage horses. The only regret is that so many of the best were bought to leave the Dominion, our American friends proving as usual stayers in the bidding when the stuff suits. The grand Canadian-bred five-year-old stallion, Saxon—97—641, winner of the grand championship at St. Louis and Chicago last year, topped the sale, at the sensational price of \$5,500, going to the bid of Mr. J. H. Godfrey, of New York. The four-year-old horse, Imp. Royal DREWTON, was taken by Mr. J. T. Walker, Clarksville, Mo., at \$2,800. Prof. M. Cumming, of the Nova Scotia Agricultural College, secured a snap in the three-year-old Cliffe Rosador (Imp.) (8418), at \$1,050. If there was another snap it was the purchase by Mr. John Duncan, of Riverview, Grey Co., Ont., of the three-year-old St. David (Imp.)—216—, at \$1,175. Mr. L. W. Cochran, of Crawfordsville, Indiana, was one of the largest buyers, securing some six head of good ones, wisely selected. The highest price for a mare was \$1,625, paid by Mr. Jay, of New York, for the fine four-year-old Minona, by Robin Adair 2nd. The average realized for the 39 Hackneys sold was \$655 each. The harness and saddle horses brought from \$130 to \$360 each. Following is the sale list of the breeding stock:

STALLIONS.

Saxon; J. H. Godfrey, New York	\$5,500
Royal DREWTON (Imp.); J. T. Walker, Clarksville, Mo.	2,300
Ivanhoe; Mr. Woodruff, St. Catharines	1,850
St. David (Imp.); John Duncan, Riverview	1,175
Cliffe Rosador (Imp.); Prof. Cumming, Truro, N. S.	1,050
Lord Meltonby (2 years); L. W. Cochran, Crawfordsville, Ind.	1,100
Wadsworth Squire (Imp.); Mr. Galbraith, Newcastle	850
Terrington Bellerophon (Imp.); J. H. McKinnon, Bethany	700
Mr. Dooley (2 years); L. W. Cochran	400
Royal Gannymede (2 years); W. C. Jay, New York	310
Sir Wilfrid (1 year); L. W. Cochran	325
Vanguard (1 year); Telfer Bros., Milton	100

MARES.

Minona; W. C. Jay, New York	\$1,625
Priscilla; Dr. Bruce, Toronto	825
Rickell's Heiress	650
Terrington Bonniel (Imp.); W. C. Jay	725
Gaudy Kitty (Imp.); W. C. Jay	725
Canadian Queen; H. Yates, Buffalo, N. Y.	600
Lady Brookfield; Geo. Mitchell, Clark	425
Melody; S. H. Knox, Buffalo, N. Y.	575
Lady Aberdeen and foal; W. C. Jay	500
Mona's Queen; Herbert Wells, Palmerston	300
Cherry Ripe; C. A. Webster, Yarmouth, N. S.	195
Portia; H. Yates	180
Wild Mint; W. C. Jay	290
Thelma; W. C. Jay	290
Doris; T. Bennett, Newcastle, N. Y.	165
Wild Cherry; Hodgkinson & Tisdale, Beaverton	230
Floradora; Geo. Rountree, Toronto	205
Lady Minto 2nd; Geo. Mitchell, Newcastle, Ont.	105
Olga 2nd; W. E. Jewel, Bowmanville	185
Rosalie; L. W. Cochran	800
Wild Violet	310
Waverley Belle	225
Waverley Queen; L. W. Cochran	105
Wild Clover (1 year); L. W. Cochran	200
Waverley Enchantress (1 year); Geo. Mitchell	175
Waverley Winnie	260
Coquette; Dr. Bruce	250
Pickwick and Waverley Kate (carriage pair)	600
Peverill (Imp.); Clyde stallion; H. Yates, Buffalo	380

Kerosene Treatment for Pea Weevil.

To the Editor "Farmer's Advocate":
 Six years ago I had decided to give up sowing peas on account of the pea weevil, but experimented by putting 1 1/2 bushels in a barrel, pouring 1 quart kerosene over them, and carefully stirring it through them. I cannot find to-day a sign of a worm or egg. I think it was in February or early March I tried the treatment.
 JAS. R. CAMPBELL.
 Stormont Co., Ont.

President of the British Board of Agriculture.

Our English correspondent writes that the appointment of Mr. Allwyn Fellowes, as President of the Board of Agriculture, has not occasioned any surprise, as he has acted in the House of Commons as Lord Onslow's representative with great ability. His appointment, moreover, meets the demands of the Chamber of Agriculture for a Minister who has a seat in the Lower House. Mr. Fellowes is a land-owner, and, therefore, should be in sympathy with agriculturists, but, unfortunately, he is a strong opponent of the movement for repealing the act which keeps out live cattle from Canada.

Western Dairy School (Strathroy) Graduates.

General proficiency and per cent. of total marks—
 D. Menzies, 83 per cent.; D. H. Walker, 82; L. Chilverton, 81; Wm. Scott, 80; H. Jackson, 79; Wm. Inch, 78; Geo. Gunn, 78; E. H. Bell, 76; Geo. Beck, 72; M. Box, 69; E. Wilson, 61.
 Specialists, buttermaking.—J. B. Payne, 76 per cent.; J. K. McAlpine, 64.
 Specialists in cheesemaking.—Geo. Stanley, 62 per cent.
 Home Dairy.—Miss Estella Harris, 80 per cent.; Miss L. R. Pound, 79.

NEWS OF THE DAY.

Canadian.

Lord Strathcona is in Canada.
 Meaford Bay is clear of ice, and ready for navigation.
 Andrew Miscampbell, ex-M. P. P., the Conservative organizer, is dead.
 The C. P. R. will build several new branches in Manitoba and the West.
 The ice-breaker Montcalm is making good progress in clearing the St. Lawrence River.

The Government steamer Minto is off the rocks, and at the Georgetown, P.E.I., wharf.

Robert Quick, a farmer of Caradoc Township, near Strathroy, Ont., on March 25th strangled his younger brother Alfred, in a fit of insanity.

Four townships have been reserved for the half-breeds in Alberta, and an Industrial school will be erected for them. The land will be subdivided into 80-acre lots.

Victoria University, Toronto, has been made the recipient of two handsome donations, one of \$200,000, from the trustees of the Massey estate, and one of \$50,000, from Hon. G. A. Cox.

Power from Eugenia Falls, 33 miles south of Owen Sound, is to be utilized for manufacturing and lighting purposes by that town. The construction of a huge power plant will be started at the Falls immediately, and will be completed in a year.

The Royal Mail Steamer Parisian collided with the Hamburg-American liner Albano, at the entrance of Halifax harbor on March 24th. Both vessels were damaged, and the Parisian had much difficulty in making her dock, where she sank a short time after landing her 700 passengers.

British and Foreign

Seven thousand armed peasants, pillaging in Russia, routed a force of Cossacks.

A reign of terror has broken out in the Caucasus, and Poland may rise in rebellion.

Maxim Gorky, the Russian author, is to be tried on the charge of writing seditious proclamations.

General Grippenberg has been relieved from command of the second Manchurian army, but is permitted to retain his position of aide-de-camp to the Emperor.

Gessler Rosseau, the dynamiter, now under arrest in New York, says he made the machine that blew up the Maine, but that it was intended to destroy a Spanish vessel. What about the American casus belli?

Relations between Norway and Sweden have become strained. Norway accuses Sweden of disregarding the terms of the Treaty of Union, and should an amicable settlement not be arrived at, danger to the Union itself is threatened.

There are again rumors of turbulent socialist disturbances in St. Petersburg, where several of the largest manufacturers have recently closed down, with the result that 80,000 men are walking the streets idle and ready for any disturbance. Already the machinery in one of the big cotton mills has been wrecked, and the guard officers have been warned that their death warrant will be sealed the moment they again order the troops to fire on the people. It has also become a matter of public discussion, that sentence of death has been passed upon the Czar, the Dowager Empress, and thirty others high in authority. In Warsaw 80 bombs have been discovered in a brick grave in one of the cemeteries, and an attempt has been made upon the Chief of Police, who miraculously escaped with his life, though severely wounded by the effects of the bomb, which was exploded in his carriage. Upon the same day a bomb was thrown into the police station of Praga, one of the suburbs of the city, and six policemen were severely wounded, the furniture and walls of the room into which it fell being completely wrecked. The peasant movement in south and west Russia also continues to spread. Several landlords have been murdered, and in some sections the peasants have taken possession of estates and are offering resistance to the police.

The rushing of supplies to Vladivostok, the purchase of enormous numbers of railway cars by Russia from French builders, and the statements from Paris that all hope of immediate peace has been abandoned, preface a repetition at Vladivostok of the Port Arthur tragedy. Japan is said to be straining every nerve in preparation for the coming summer's campaign. Mukden and Tieling are but the prelude to a campaign commencing in May and involving the occupation of Harbin and investment of Vladivostok. Prospects for the season include the destruction of the Russian field forces in Manchuria, and the sinking or capture of the Baltic fleet. The Times' correspondent at St. Petersburg cables that alarmist reports of Japanese columns approaching Kirin and Betuna continue to be telegraphed by Russian correspondents, though the general staff anticipates nothing serious for several weeks. Prospects of internal peace, temporarily brightened by an expected convocation of the people, are again obscured by the lowering clouds of reaction and oppression. Reports from Manchuria show that the Russians are destroying the railway much more thoroughly than has been hitherto evident. The inference is that they do not contemplate recovering the situation.

MARKETS.

Toronto.

LIVE STOCK.

Receipts at the Western Cattle Market last week amounted to 142 cars, and included 2,382 cattle, 416 sheep and lambs, 2,072 hogs, and 151 calves. Receipts for the same time at the Junction Stock Yards were 54 cars, including 841 cattle, 2 sheep, 707 hogs, and 19 calves.

Export Cattle—The demand for cattle is still active, and prices are advanced. Choice are quoted at \$4.75 to \$5.25; good to medium, \$4.50 to \$4.75; others, \$4.25 to \$4.40, and bulls, \$4 to \$4.25.

Butchers' Cattle—Good to choice, \$4.50 to \$4.75; fair to good, \$4 to \$4.40; mixed lots, medium, \$3 to \$3.75, and common, \$2.50 to \$3. Cows sold at \$2.50 to \$4, and bulls at \$2 to \$3.

Stockers and Feeders—Higher; demand still active. Short-keep feeders are quoted at \$4.50 to \$4.75; common to fair, \$3.75 to \$4.25, and stockers, \$1.50 to \$3.40, with \$1.75 to \$2.50 for bulls.

Milch Cows—The inquiry for cows of good quality is brisk. Prices unchanged at \$30 to \$60 each.

Calves—3½c. to 6½c. per lb., and \$2 to \$12 each.

Sheep and Lambs—The runs continue light in all lines, and prices are correspondingly firm. Quotations are higher. Export sheep are quoted at \$4 to \$5.50; mixed at \$4 to \$5; grain-fed lambs at \$6.75 to \$7.35; barnyards, \$5.50 to \$6.50. Spring lambs are quoted at \$3.50 to \$7 each.

Hogs—The market is weak in tone. Quotations are unchanged at \$6.25 per cwt. for selects, and \$6 for lights and fats.

GRAIN, FLOUR AND FEEDS.

Ontario No. 2 red and white, \$1.04 to \$1.05; spring, 97c., and goose, 90c. Manitoba—For delivery at lake ports on the opening of navigation; No. 1 northern, 99c. to \$1; No. 2, 96c. to 97c.; No. 3, 90c. to 91c.

Flour—90 per cent. patents, \$4.40 to \$4.50, buyers' sacks, east and west; 15c. to 20c. higher for choice. Manitoba, \$5.50 to \$5.70 for first patents, \$5.10 to \$5.40 for second patents, and \$5 to \$5.30 for bakers'.

Mill Feed—Continues scarce at \$15 to \$15.50 for bran in bulk, \$17 to \$17.50 for shorts for car lots, east and west; Manitoba, \$20 for shorts, and \$18 for bran.

Barley—46c. to 47c. for No. 2, 44c. to 45c. for No. 3 extra, and 43c. for No. 3, malting outside, Toronto freights.

Rye—Nominal; 71c. to 72c. for No. 2, f. o. b., outside.

Corn—Canadian mostly nominal; 47c. to 48c. for yellow, and 46c. to 47c. for mixed, f. o. b., Chatham freights; American unchanged, No. 3 yellow, 55c. to 55½c.; mixed, 54½c. to 55c., on track, Toronto.

Oats—Firm; 40c. to 41c. for No. 2, outside, 42c. at low freights.

Peas—The market is firmer; 68c. to 69c. for No. 2, west and east, and 70c. for milling.

Buckwheat—Higher, 59c. to 60c., east and west.

COUNTRY PRODUCE.

Butter—Receipts are increasing, and the tone of the market is less firm. Quotations are unchanged.

Creamery, prints 25c. to 26c. do, solids 23c. to 24c.

Dairy tubs, medium 17c. to 18c. do, inferior 15c. to 16c.

Dairy lb. rolls, good to choice 22c. to 23c. do, large rolls 20c. to 22c. do, medium 18c. to 19c.

Cheese—Holds firm, and is quoted unchanged at 11½c. for twins, and 11½c. for large, in job lots here.

Eggs—Receipts are growing heavy, while the demand is about steady.

Potatoes—The tone of the market conveys easy. Prices are quoted unchanged. Ontario, 65c. to 70c., on ack, and 75c. to 80c. out of store. Western, 70c. to 75c. on track, and 6c. to 90c., out of store.

Beans—Are steady, with a firm tone.

Hand-picked, \$1.75 to \$1.80; prime, \$1.65 to \$1.70, and undergrades, \$1.25 to \$1.50.

Hops—Quoted unchanged at 32c. for Canadian crop.

Maple Syrup—Is coming forward in fairly large lots. Quotations are unchanged at \$1 per imperial gallon.

Baled Hay—Is coming forward freely, and the market is easy in tone, and quoted unchanged.

Baled Straw—Car lots on track here are quoted easy in tone at \$6 per ton.

Montreal.

Eggs—17½c. wholesale, and 18c. in smaller lots.

Butter—Prices have advanced unexpectedly; supplies not keeping pace with the demand. Fresh-made creamery, 28c. to 29c.; choice fresh, dairy, 23c.

Cheese—Market has advanced further during the past week to a high figure. Supplies cleaned up, and 12½c. has been refused for white Ontarios. As stocks in England are light, prospects are bright for good prices for the early Canadian make, more especially seeing that butter is scarce and high.

Potatoes—Demand brisk for good stock, and prices steady, at 65c. per 90-lb. bag, in carloads, on track. Poor stock hard to sell at any price; fair, 5c. below above figures. Country stocks seem to be considerable.

Beans—Little change. Stocks light; prices still firm; \$1.70 to \$1.80 for choice, according to quantity; inferior grades considerably less.

Turnips—Suddenly become scarce, and prices further advanced to \$17.00 per ton, car lots. Retail almost a cent a pound. Demand good.

Maple Product—One lot of sugar and syrup on the market. Pure syrup, in 15-gallon kegs, 6½c. to 7c. lb., and in 8 or 9 pound tins, 8c. to 8½c. a pound (a gallon weighs about 13 lbs.); sugar, 8c. to 11c. a pound.

Flour—Gradually declining, in sympathy with wheat. Price-cutting has occurred; about \$5.30 per bbl. in bags for Manitoba strong patents.

Live Stock—Export demand not active, as English market reports are not very encouraging. Business for the spring is quiet, and no new freight engagements are reported. It is expected, though, that a demand for stall-fed and distillery cattle may wake up at any time. The supplies of these cattle throughout Ontario are as follows: Prescott, 450; Belleville, 440; Toronto, 3,200; Galt, 450; Hamilton, 450, and Windsor, 3,000; making in all 7,990 head.

Shipments from the ports of West St. John, N.B., last week, and Portland, amounted to 1,533 head of cattle, and 1,400 head of sheep. The feature of the local live stock market was again the strength of live hogs. These advanced further, and sold at 7c. to 7½c. per lb. for selected stock, mixed and heavy being probably procurable at somewhat less. The strength of live hogs is not due to the firmer market on Canadian bacon in England, as the market is now above an export trade. It is due simply to scarcity. At present the market for live hogs is far above the price at which hog products are selling, and packers have practically closed down their plants for want of reasonable-priced animals. Deliveries of other live stock are also light, and prices are firm. Choice cattle sell at 4½c. to 5½c.; good, 4c. to 4½c.; medium, 3½c. to 3¾c.; and common, 2½c. to 3c. Spring lambs sell at \$5 to \$9 each; yearlings at 5c. to 5½c.; and sheep at 4c. to 4½c. Calves bring \$1.50 to \$4 for poor, and \$5 to \$10 for good.

Dressed Hogs, Etc.—Market for dressed hogs strong, in sympathy with that for live. Fresh-killed abattoir hogs are selling at 9c. to 9½c., to cover all qualities, the small, select stock being very scarce.

Grain—The market for oats is holding firm. This applies specially to No. 2 stock, which continues to sell in car lots at 45½c. per bushel, in store. No. 3 oats are not very strong, and they are hard to sell.

British Cattle Market.

London.—Live cattle are quoted at 10½c. to 11½c. per pound; refrigerator beef, 8½c. to 8¾c. per pound; sheep, 12c. to 13c. per pound.

Chicago.

Cattle—Good to prime steers, \$5.40 to \$6.40; poor to medium, \$4.25 to \$5.25; stockers and feeders, \$3 to \$5.

Hogs—Mixed and butchers', \$5.20 to \$5.37½; good to choice, heavy, \$5.30 to \$5.46; rough, heavy, \$5.15 to \$5.25; light, \$5.10 to \$5.30; bulk of sales, \$5.25 to \$5.35.

Sheep—Good to choice wethers, \$5.70 to \$6.25; fair to choice, mixed, \$4.50 to \$5; native lambs, \$5.50 to \$5.70.

Buffalo.

Cattle—Fairly active and steady; prime steers, \$5.60 to \$5.85; shipping, \$5.15 to \$5.50; butchers', \$4.50 to \$5.10;

heifers, \$3.50 to \$5; cows, \$3 to \$4.35; bulls, stockers and feeders, \$3 to \$4.40.

Veals—Steady, \$4.50 to \$8.

Hogs—Active and steady, to 5c. higher; heavy, \$5.75 to \$5.80; a few, \$5.75; mixed, \$5.70 to \$5.75; Yorkers, \$5.40 to \$5.65; pigs, \$5.20 to \$5.25; roughs, \$4.80 to \$5; stages, \$3 to \$3.75.

Sheep and Lambs—Slow, and unchanged.



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, Drivers 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.

GET A HOME In the Great Canadian West.

THE CANADIAN-BRITISH LAND CO., LTD. Established by letters patent by Ontario Government, and Licensed by the Government of the Northwest Territories.

Parties dealing with this company have the advantage of safety, reliability and fair treatment. All the lands held by the company have been carefully selected by competent, practical farmers, on the direct line of the Hartney Regina extension of the C. N. R., now being built. A large tract of 41 wheat lands in the famous Moose Mountain District. Beautiful open prairie, water good and plentiful, proximity to fuel and building timber, unsurpassed fertility and easy terms are some of the advantages offered. A. McWilliam, resident director at Regina, will show lands and give full information.

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



Life, Literature and Education.

"To tell your own secrets is generally folly, but that folly is without guilt; to communicate those with which we are entrusted is always treachery, and treachery for the most part combined with folly."—[Dr. Johnson.

The Letters of Junius.

Readers of the "Farmer's Advocate and Home Magazine" will have noticed occasionally in the newspapers letters signed "Junius," "Junius Junior," or other combinations in which Junius forms a part. But these are not the celebrated anonymous letters known in literature and history as the "Letters of Junius." The subjects of the letters were mainly political, and 44 in number, besides others signed "Philo Junius," "Mnemon," "Atticus," "Lucius" and "Brutus," believed to have been from the same pen. Added to these were private letters addressed to Mr. H. S. Woodfall, the publisher of the Public Advertiser, a London, Eng., newspaper, in which the letters appeared, and to John Wilkes, the famous journalist and public character of that time. They were written and published during a period of five years, from early in 1767 to the middle of 1772. Sometimes they were addressed to the Printer of the Public Advertiser, and frequently to the public men of the time. That was during the last year of the administration of the Duke of Grafton, and the first year of that of Lord North. The first of them was entitled the "State of the Nation," at that time George III. being King. It was a trenchant and powerful arraignment of the administration of the day, when the liberties of the press had not yet been vindicated. "In one view," he remarks in the course of that letter, "behold a nation overwhelmed with debt; her revenues wasted; her trade declining; the affections of her colonies alienated; the duty of the magistrates transferred to the soldiery; a gallant army, which never fought unwillingly but against their fellow-subjects, mouldering away for want of the direction of a man of common abilities and spirit; and the administration of justice become odious and suspected to the whole body of the people." The Duke of Bedford, Lord Mansfield, the Duke of Grafton, and others, writhed beneath the lash of this anonymous correspondent, an invisible, unknown and dreaded censor, who was equally cognizant with their public careers as with the follies and crimes of the private characters. The letters were bold, forceful, pointed, epigrammatic, clear in argument, exquisite in language, and above all stern and steady in their attachment to the purest principles of the constitution, giving them a popularity and influence which no other series of letters before or since have ever possessed. The writer was a man of affluence, wide and mature experience, accurately posted regarding the secret intrigues of the

Court and doings of the Government. The last political letter over his signature was addressed to Lord Camden, in 1772. The author himself predicted their immortality, but declared: "I am the sole depository of my secret, and it shall die with me." That he was able to preserve an impenetrable masquerade is one of the marvels of literature and history. Even his printer, Mr. Woodfall, did not know for a certainty his identity. Efforts to solve the mystery began with the publication of the first letter, and have continued intermittently ever since. They have been attributed to Samuel Dyer, Burke, Boyd, Dunning, the Duke of Portland, Lord George Sackville, Earl Temple, W. G. (Single Speech) Hamilton, Col. Barre, Wilkes, Horne Tooke, Thos. Lyttleton, and Sir Philip Francis. To the latter they are, perhaps, most generally credited.

Charles Sangster.

Chas. Sangster, who was born at Kingston, Ont., in 1882, and died at Ottawa in 1893, ranks among the widely-known and representative Canadian poets. He was the author of "The St. Lawrence, The Saguenay, and Other Poems," published in



Charles Sangster.

1856, and of "Hesperus, and Other Poems and Lyrics," in 1860. His lines to England and America begin as follows:

"Greatest twain among the nations,
Bound alike by kindred ties—
Ties that never should be sundered
While your banners grace the skies—
But united stand and labor,
Side by side and hand in hand,
Battling with the sword of freedom
For the peace of every land."

The Real Squeers.

I recently read in a newspaper an account of the death of the man who furnished Dickens with the character of Mr. Squeers, of Dotheboy's Hall. He was described as a mild, scholarly man, but I happen to know that Dickens did not exaggerate. I was a very small boy when Nicholas Nickleby was being issued for the first time, in monthly parts. In fact, I was at that time a scholar at a large school in Yorkshire, situated within a mile or so of the veritable Dotheboy's Hall. The boys of the two schools went to the same church together. The real name of Squeers was Sowerby, and the statements made by Dickens were pretty near the truth, as we boys knew who were in such close contact with the Squeers boys once a week,

We were known as "Simpson's lads," they as "Sowerby's boys." Observing as we did the starved condition of the other boys, we used to pocket "hunks" of suet pudding and "chunks" of good bread and take them to church to pass to our hungry neighbors as we marched upstairs beside them.

The great treat of their lives came to the Sowerby boys on Sundays, when they were given half a salt herring and a boiled potato for dinner. If Dickens had seen the poor scarecrows dressed for church he would have done better with his description of the use of the ward-ropes required by the prospectus.

A part of the farm belonging to our school adjoined Sowerby's place at a small "nut gill," or little ravine with a stream running through it, which divided the properties. Hazel-nut bushes lined both sides of the gill, and there Simpson's lads were allowed to gather all the nuts they could find and save them for winter use. At nut-gathering time Sowerby would patrol his side of the gill, having a heavy dog-whip in his hand, and accompanied by a half-starved bulldog, which he would try to set on the lads. The dog was acquainted with us because we carried food to him, and when ordered to "sick'um" he would chase across, wagging his tail in expectation of "grub." As we always went in squads of ten or twenty, we had no fear of Sowerby.

The picture of Dotheboy's Hall drawn by Dickens ruined the business of all the Yorkshire schools, and on my return home I was asked if I were not glad to leave the beautiful place in which I had spent four happy years. But from my actual knowledge of the creature who supplied the character of Squeers, the idea of his being a "mild, scholarly gentleman" is too great a libel on the fair name of Dickens to be allowed to pass uncontradicted.—[John Dalziel in the Argus.

Shakespeare's Town.

By Anna L. Jack.

The famous Mecca for Shakespearean pilgrims is somewhat disappointing to admirers of the great dramatist, for it is given over to a money-making crowd, and Stratford-on-Avon is not the sleepy, old-fashioned village of our dreams.

It seemed a strange travesty as we passed over the threshold of the Shakespeare Hotel, to be shown into a room that held over the door the word "Macbeth" in large, imposing letters. Looking down the corridor we noticed each bedroom named, and with a touch of sentiment that was half superstition, wondered why some more fortunate person was to have "A midsummer night's dream," while we were given over to tragedy.

In the town, as it is now called, all is stir and bustle when the crowd of sight-seeing Americans invade the place. Into the old house—and the old church, when often a crowd await their turn in line, as if at a ticket-office, and indeed there are tickets, for shillings and sixpences seem to go as if by magic out of one's fingers, and in return we receive a yellow slip, and afterwards a blue one on payment of another shilling. It is the same as Anne Hathaway's Cottage—guarded by the money-making

exhibitors—but well worth the amount paid. The church is a fine old building, and the approach to it under two rows of arching lime trees, is very beautiful. Many memorial windows give a wonderful light in the sunshine—the prisms of color truly gorgeous. In the churchyard the stern stanza guards his "bones," and the noise of a tiny cascade is heard mingling with a breeze among the trees. Such is the end of human greatness, we say, and a little of this eulogy while he lived would have been of more value than the homage paid to a dead lion.

It was pleasant, after the throng had passed by, to sit in the chimney corner of Anne Hathaway's Cottage, and look up its yawning gap to see the blue sky and swallows passing in and out, to and from their nests. Here we could dream of that wonderful brain, its visions and marvellous insight into nature, and again the thought comes that he did not in his life enjoy the result of his great labor, or receive the recompense for what he has been to posterity. But dreaming ceases as the caretaker rattles the keys, and we seek the Shakespeare "bus," while the air is redolent with the fragrance of lavender and roses, and we depart with a consciousness of an empty pocket-book, but a memory well stored with the relics of a departed glory and of a town that lives on dress parade.

Wife of His Youth.

The dedication of "Ben Hur" got General Lew Wallace into trouble. When he was writing the book he told his wife that he expected to dedicate it to her, and that she must furnish the dedication. She wrote the following, which appears in the first edition of the work: "To the wife of my youth."

The book leaped into public favor at once. The usual penalties of greatness followed. General Lew Wallace began to get hundreds of letters from people who had read the book. Among them were scores from women who supposed that the dedication meant that "the wife of his youth" was dead.

They sympathized with him in the fact that Mrs. Wallace was not alive to share his fame, and more than one of them hinted that she could be induced to help him to overlook his loss. These letters annoyed General Wallace. When it came time to prepare a second edition he thought of how he could put a stop to the matrimonial offers.

"You got me into this muss," he told Mrs. Wallace. "You must get me out."

She was willing, and after some thought suggested the addition of a few words to the original dedication, and in all future editions it appears as follows: "To the wife of my youth, who still abides with me."

So it is that lovers of rare books have added this odd first edition to their collection. The book went into many editions after the first, and it is seldom that one of the first is found. If it has the dedication as first printed above, the collector may be sure that it is a first edition. Alexander Hill, of Cincinnati, has one of the first editions with a fly-leaf of a later edition bound in, showing the two styles of dedication.

Occupation and Longevity.

What occupation in life offers man the best prospect of long life? The question is often asked.

Dr. Schofield, late lecturer and examiner of the National Health Society, has in his book "Nerves in Order" given a table of longevity which supplies an answer.

Evidently the Christian ministry is the most healthful of all occupations. Clergy, who head the list, live more than twice as long as the average members of other professions. Nonconformist ministers die a little faster.

The complete list works out thus in order of longevity: Clergy (55 per cent.), dissenting ministers, farmers, agricultural laborers, grocers, lawyers, drapers, coal miners, watchmakers, artists, shoemakers, bakers, clerks, chemists, green grocers, tailors, doctors, butchers, painters, musicians, cab and bus men, sweeps, publicans, metal miners, hawkers, London laborers, barman.

Descent from the good stock, temperate habits and small, but assured incomes, are factors in the long life of the clergy.

Farmers would show up better if they spent less money in drink.

Grocers owe their higher death rate to the spirits they consume.

Lawyers would be better off if it were not that after 45 they die off more quickly.

Drapers die largely from consumption, owing to the amount of dust encountered in their business, but the surprisingly good health of coal miners is probably due to the harmlessness of coal dust.

Bakers die largely from drink and suicide.

Clerks alone live to the present average age of 48.

Musicians include all organ grinders and German bands. "Hence," writes the author, "their mortality." —[London Leader.

Our Debt to Asia.

It is noteworthy that out of Asia came our alphabet and our Arabic numerals. The compass we owe to the Chinese, who knew the magnetic needle as early as the second century A. D. Gunpowder originally came out of Asia, and so did the art of printing and the manufacture of paper. The Chinese invented movable types in the middle of the eleventh century, 350 years before Gutenberg. They also made silks long before Europe, and porcelain that has never been equalled by Europe. Truly, Asia is the cradle of the race. On the original ideas of the Persians, Arabians, the Hindoos and the Chinese our modern society has been built.

Think Straight.

It would be impossible for a lawyer to make a reputation in his profession while continually thinking about medicine or engineering. He must think about law, and must study and become thoroughly imbued with its principles. It is unscientific to expect to attain excellence or ability enough to gain distinction in any particular line while holding the mind upon and continually contemplating something radically different.—Success.

Two correspondents wrote to a country editor to know respectively, "The best way of assisting twins through the teething period," and "How to rid an orchard of grasshoppers."

The editor answered both questions faithfully, but unfortunately got the initials mixed, so that the fond father of the teething twins was thunderstruck by the following advice:

"If you are unfortunate enough to be plagued by these unwelcome little pests the quickest means of settling them is to cover them with straw and set the straw on fire."

While the man who was bothered with grasshoppers was equally amazed to read:

"The best method of treatment is to give them each a warm bath twice a day and rub their gums with borax."



Ideal Friendship—"A Threefold Cord."

Two are better than one: because they have a good reward for their labor. For if they fall, the one will lift up his fellow. . . . and if one prevail against him, two shall withstand him, and a threefold cord is not quickly broken.—Ecc. iv.: 9-12.

I in them, and THOU in ME, that they may be perfected into one.—S. John xvii.: 28 (R. V.).

"A friend is worth all hazards we can run!

Poor is the friendless master of a world!

A world in purchase for a Friend is gain!"

Surely no one will contradict that assertion, for a friendless man would, indeed, be terribly "poor," even though he were "master of a world." St. Paul was very rich, because he made friends everywhere he went, and yet held fast to the old ones. But, you may ask, how can the ideal friendship be "threefold," when so many will agree with the saying: "Two is company, three is none?"

Looking out of the window one sunny morning last fall, I saw a tall tree crowned with a magnificent crimson wreath of the Virginian creeper. I thought no more about it, until a few days ago, when it suddenly struck me that it was a picture of a merely human friendship—a union of "two," beautiful, indeed, but limited, and, therefore, disappointing. The ideal unity is that of GOD Himself, and of our own personality—a Trinity in Unity. Although "two are better than one," only the "threefold cord" can stand a long, hard strain. The tree supported the vine, and the vine graced the tree with its beauty, both were constantly aspiring, but both had nearly reached their limit of height. Already the long tendrils of the vine, having nothing higher than the tree to cling to, were drooping towards earth again. A friendship between two human souls can only be "ideal" when Christ "makes, unseen, a Third." Our hearts burn within us while He talks with us by the way; we understand what real communion means, when we talk with Him of our friend, and can also talk with our friend of Him—sure of perfect comprehension and fellow-feeling. If He is the dearest Friend of each, then the closer the earthly friends are knit together, the nearer they draw to Him Who reigns in both hearts.

"One Hope within two wills! one Will beneath
Two overshadowing minds! one Life,
one Death,
One Heaven, one Hell, one Immortality!"

The separation—even the dread separation of death—may do its worst, but it can only rivet the links which bind friends together.

"Death hides, but it cannot divide;
Thou art but on Christ's other side;
Thou with Christ and Christ with me,
And so together still are we."

No real friendship is possible without the elements of Sacrifice and Trust. Love may exist without Trust: many a broken-hearted father or mother loves, as David loved Absalom, when all trust is gone; and many a saddened woman shows the deathless power of love, when, instead of walking joyfully through the wildernesses, "leaning upon her beloved," she spends her life in the weary attempt to uplift the man who should be her tower of strength. But it has been truly said that "Trust is the native air of friendship." Damon gladly went out to die for his friend, because his trust in that friend's loyalty was unshaken; and, though our friendship may not be as

severely tested as was that of the famous friends of Syracuse, if it is not founded on mutual trust and a readiness for sacrifice, it can hardly be called friendship at all. Abraham well deserved the name of "friend of GOD," for he was not only ready to sacrifice his dearest earthly possession, but also trusted GOD to fulfil His promise—"In Isaac shall thy seed be called"—even though, in order to do it, He might have to raise Isaac from the dead.

As the friendship should be threefold, so the trust and sacrifice should also be threefold. Friends must have confidence in each other and in Christ, standing always prepared to prove their love by sacrifice, and He—Who has already proved His love to the uttermost—will gladly, if possible, trust us as "friends." He Who would not commit Himself to some men because "He knew what was in man," did—for the very same reason—commit Himself to a few, saying: "I have called you friends." He knew them through and through: knew that, although they would desert Him a few hours later, they loved Him still. St. Peter made no mistake when, although he could offer no proof of loyalty, he threw himself so confidently on his Friend's knowledge of his heart, saying: "Lord, Thou knowest all things: Thou knowest that I love Thee." Surely it was not only the Master's Divine power that gave Him such clear insight—the pure in heart can not only see GOD, but also man. A pure-souled woman knows that when she instinctively shrinks from anyone, there is good reason for the feeling of repulsion, though there may be no outside proof to support her intuition. In the same way we know intuitively when another soul is one with us in our deepest spiritual longings. Tennyson, in "Geraint and Enid," shows how Geraint knew intuitively that his wife was trustworthy—although, manlike, he refused to trust his own intuition—and Enid endured patiently because she knew well that her husband loved her, though he was treating her with such cruel injustice. She could not see into his mind, but she could see into his heart, and, being true to her own convictions, she was far less unhappy than he. Edna Lyall also shows, in "A Hardy Norseman," how the most convincing circumstantial evidence against a noble character weighs absolutely nothing against his own word, in the judgment of the few tried friends who see deep down into his very soul.

But even the best earthly friends are only human, and, therefore, not always worthy of trust. Must friendship, therefore, be broken as soon as a friend falls? Surely not! "for, if they fall, the one will lift up his fellow." Our Lord set us a wonderful example when, even at the last moment, He tried to draw Judas back to his allegiance with the tender, pleading words: "Friend, wherefore art thou come?" Our love for Him may be like a frayed thread, as weak "as flax that was burnt with fire," but His love—the love by which He draws our hearts to Himself—is everlasting and mighty, being already "Threefold," even the love of The Blessed Trinity, revealed in the Incarnation. Though we may be as ignorant as Ephraim, and know not that He is healing us, yet He still draws our souls upwards "with cords of a Man, with bands of love." If we twine our weak cord of love round that mighty "band," it will stand every strain, for all the pressure will fall on the central strand.

Then, if we are to be friends, we must show ourselves friendly. The church can never forget that she failed her Lord when He sank beneath the Cross which he was bearing so willing for her, His Bride. She forced Him then to accept the unwilling help of a stranger—not one friend pressed eagerly forward to ease the heavy weight—but that is no reason why we should fail Him now. When He, in the person of one of His overburdened friends, looks to us for help, shall we not gladly forestall Simon, the stranger? May it never be said of us: "Inasmuch as ye did it not to one of the least of these, ye did it not to ME." No one

can live unto himself alone. It is a necessity of our nature to reach out eagerly and touch kindred spirits—those who understand our thoughts "which lie too deep for words"—seeing ourselves reflected in them; for, "as in water face answered to face, so the heart of man to man." Surely in this also we are made in the image of GOD, for His Spirit is continually reaching out to touch the spirit of man in intensest secret communion, with which not even the dearest earthly friend may intermeddle. And—we may well bow our heads in wondering unworthiness at the thought—this mysterious communion of Spirit with spirit is a real joy to Him too: "The Lord thy God in the midst of thee is mighty: He will save; He will rejoice over thee with joy; He will rest in His love; He will joy over thee with singing."—Zeph. iii.: 17.

Let us prize God's great gift of friendship, for, as Jesus the son of Sirach has said: "A faithful friend is the medicine of life; and they that fear the Lord shall find Him." If we are closely linked with Christ, He will make us channels of power through which His Spirit will continually flow into the spirits of our other friends. He is ready to work—through us—mighty works that the world does not dream of. 'This is a hidden and secret service, but is not all power—physical as well as spiritual power—invisible and incomprehensible? The infinite gain of this "threefold" union is beautifully expressed in the following verses, which were sent me last Christmas by a dear friend, who, young as she is, has early learned the power and sweetness of the Communion of Saints:

"Go thou thy way, and I go mine,
Apart, yet not afar;
Only a thin veil hangs between
The pathways where we are.
And 'GOD keep watch 'tween thee and me,'
This is my prayer;
He looks thy way, He looketh mine,
And keeps us near.

"I know not where thy road may lie,
Or which way mine will be;
If mine will lead through parching sands
And thine beside the sea;
Yet GOD keeps watch 'tween thee and me,
So never fear;
He holds thy hand, He claspeth mine,
And keeps us near."

HOPE.

How "Just as I Am" Came to be Written.

In the March Delineator Allan Sutherland gives an interesting account of the origin of "Just as I Am," Charlotte Elliott's famous hymn. After telling how the hymn came to be inspired through a remark of Dr. Cesar Malan to the invalid composer, when she had told him that she did not know how to find Christ—"Come to Him just as you are," said Dr. Malan—it is related that the hymn first appeared anonymously in The Yearly Remembrancer. Dr. C. S. Robinson, a noted clergyman, states: "Beginning thus its public history in the columns of an unpretending magazine, the little anonymous hymn, with its sweet counsel to troubled minds, found its way into scrapbooks, then into religious circles and chapel assemblies, and finally into the hymnals." That the hymn has had a deep influence for good upon humanity may be seen from the testimonials of ministers given in this article, and from the fact that after the death of Miss Elliott, above a thousand letters were found among her papers thanking her personally for the great blessings which had come to the lives of the writers through the instrumentality of "Just as I Am."

For Everyday Use.

It was only a helping hand, and it seemed of little availing,
But its clasps were warm, and it saved from harm
A brother whose strength was failing.
—Commonwealth.

It's only a mighty big man that doesn't care whether the people whom he meets believes that he is big; but the smaller the fellow is the bigger he wants to appear.—Lorimer.

A Few Hints on Painting.

In a recent number of the "Farmer's Advocate" I read a little wail from Mahlstick, describing the beauties of the sunset just at milking time. I felt inclined to write and sympathize, but it was "chore" time in general, and so the fascinating paper had to be laid down and I had time to think it over. I have frequently been struck by the artistic talent displayed by the boys and girls on the outlying farms, and have felt it to be a pity that they must struggle along alone, when a few words of advice to direct their efforts would mean so many difficulties smoothed over. It was my great good fortune while I was studying at college to be under the direction of Mr. Frank Dicksee, R. A. I also had the happiness of meeting the late John Ruskin more than once, and enjoying his remarks on the Turner collection of water colors. The records of these great masters have been of the greatest assistance to me. The methods of the greatest are always the most simple, and though I chose a breezier, healthier life than that of an artist, I have been enabled by the advice of these men to paint pictures that gladden the hearts of my own household. I should be sorry to leave the freedom of the farm life, to exchange it for that of an artist, for then I should be obliged to paint pictures that would please the purchaser; now I can paint to make myself happy, whenever I can steal a few moments from the house and poultry-yards. Mahlstick's sorrows are frequently my own, only I find that it is the dawn that tempts me most. I believe my greatest temptation is the sight of the pretty children bathing on the sea beach, and perhaps after that pre-Raphaelite bits by clear pools. It was suggested on the same page that we should write and try to help each other with our experiences on drawing and painting. My little contribution towards our "art class" lies in the following few hints: Practice absolute truthfulness in reproducing all that you see. Remember that the simplest little outline that is faithful and accurate is far more valuable than the handsomest, largest canvas that is decorated with falsehoods. Never allow a chance effect to stand. Copy patiently from nature, as though every line was the only one that you were ever to draw. Let your outline be bold, and confine all boldness to your outline. Let the filling in be tender and full of toil. A roll of plain wall paper is a cheap and plentiful supply to practice studies on. A few sticks of charcoal complete the preliminary outfit; and when you have learnt to dash in your outline, I should recommend a few oil paints in preference to water colors, as you are so much more likely to acquire a bold style, and they are much less ominously expensive than the sable brushes and moist paints. Always use a bristle brush for oils; never be tempted into anything more yielding. A flat piece of wood nicely planed will make a delightful panel to try your first attempts on. I have found that I am interrupted just as my palette is set. I have discovered a plan whereby the paint need not be wasted. I squeeze the paint tubes carefully on a small saucer, and with my palette knife take a small portion at a time on the palette. I keep a small bowl of water in the studio, and slide my saucer face downwards under the water. The paint will keep moist for weeks, and will mix up nicely with a little working.

(MRS.) OCTAVIUS ALLEN.
Georges, B. C.

Likes the Wrist Bag.

I am well pleased with the wrist-bag I received. Wishing your paper every success.
L. J. BIGHAM.
Oxford Co.

If you have to sew for many hours in succession, rest yourself by frequently changing your chair and your position.



The Picture Book.

'Twas the first of March and a stormy day,
For a blizzard was raging outside,
So Annie and Jack stayed away from school:
They could not get there if they tried.

The hours drag slowly and wearily on,
When you've nothing to do but play,
And the children found that their favorite games
Couldn't keep them happy all day.

"Let us look at pictures!" said Jack at last,
And Annie agreed to the plan—
They're only pretending, of course, you see,
That they won't show one to Fan.

For baby Fan is the pet of the house:
Do you see how they look and smile?
They know she will climb on the table soon
If she thinks it is worth her while.

But pictures are rather beyond her yet,
Though she loves the "Advocate's" sheep,
And at pigs and cows and horses and calves
She is ready enough to peep.

She cares not for plans of houses and barns
Or portraits of famous men:
But kisses the babies and claps her hands
When they show her a pure-bred hen.

What we're looking for we can always find,
In picture-books as in life,
And our pictures are varied to suit the taste
Of children and husband and wife.

Cousin DOROTHY.

One Little Injun.

I cannot tell how many years the story of "One Little Injun," as written for Harper's Young People and republished, by permission, in booklet form, has lain amongst my gatherings. But here it is with its exquisite humor and tender pathos:

"I am a jolly little Indian pappoose. I keep pretty close to my mother. She does not often like to face a responsibility of my size, but she will shoulder it any time, and so we are bound together by the strongest ties.

"When I am at home I live in a wigwam, which mother and I built. We made it of poles covered with bark and skins. We built it together. Mother did the work, and I backed her up heavily, and between us both we pulled through without interrupting father, who was busy sitting on the warm side watching mother and me work. My father is a proud and lofty being; the Sun is his father, he basks in his rays; the Earth is his mother, he reposes upon her bosom. My father honors his parents, he is bound to bask in all the Sun there is and repose on all the bosom he can lie down upon, no matter how much time it takes to do it. He clings to his mother Earth and she hangs upon him, many waters cannot part them, in life they hold close and in death nobody knows them apart. My father gives all his mind to basking and reposing and he worries in his smoking, drinking and eating at odd times. But when there is a war, or a hunt, or a dance of the graves, he arises, paints himself all glorious, beats mother to make her good, and goes off with a gun.

"Mother and I do all the rest of the work; we plant and hoe and harvest the crops; we grind the corn between stones or pound it in a mortar; then we make it into cakes, and roast them in the fire for father to eat. Mother does it, but I keep right round after her, seeing to it all.

"Sometimes we have nothing to eat—roots, berries, acorns, everything gives

out. My father can shoot no squirrels, my mother can get no corn. Then we start for the Agency to get rations. It is a long tramp, but I don't mind it, for mother does the walking. We form a procession of two—a double-header. Mother heads the front and I head the rear. As the column moves forward I go ahead backward like a born leader of the hindmost, and I pass everything on the road that is not going my way.

"The first thing I notice is our wigwam and cornstalks and bean poles. They are large at first, then they get smaller and fainter, till they are no bigger than a mosquito, and then fade quite away. So all our village goes from sight, and the sky gets big and empty, and the earth has no end. At length we come to things—horses, mules, ditches, rivers, trees, houses. One by one they bounce out upon me from around mother's shoulder. They all begin big and strong, and they go away little and faint. Everything I see is going away from me. I don't know what is coming, and I can't dodge it till it is past. That is what comes of going ahead backward.

"My people are pretty much like me. The old Mother Government straps them upon a board and shoulders them around from one place to another. If she hears them moan with hunger, she feeds them; if she sees them shiver with cold, she blankets them; when they shriek and kick with rage, she beats them. She lets them live on this side of somewhere till somebody else wants it, and then she bundles them off to the other side of nowhere, which nobody wants.

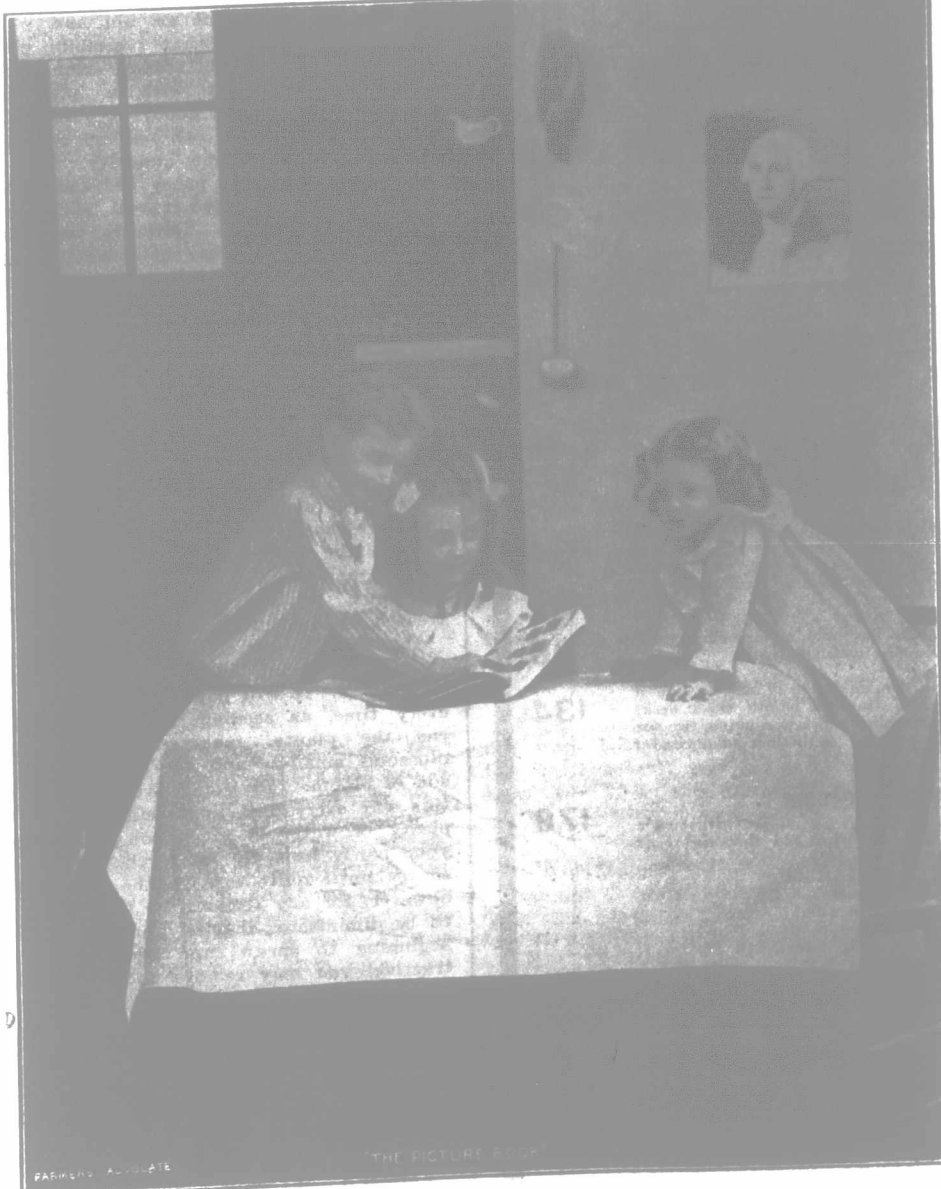
"My people, like me, are going ahead backward. Once they had all America to hunt and fight in; now they have only a small portion of the land where they can stay. The father of all my fathers could shoot an arrow, right through a bison, but his son could only kill a bear, and the bear-killer's son could only kill a deer, and the deer-killer's son shot foxes, and the fox-killer's son shot squirrels, and the squirrel-killer's son—that is myself—can only catch flies. Ah! my people started in 'big Injun,' but they are coming out little pappoose.

"White men who stay home and make books say my people are dying out; but white men who look around and count say my people are living on, as many as ever. Oh, I am the interrogation point, that points the Indian Question? What am I—a person? or folks? How did I come so? Where? When? Why? How am I coming out—voter or scalper? Which or the other? Likely as not, or more so. There are thousands upon thousands like me, bright-eyed, brown-skinned, lusty young braves, at this very minute cutting our eye-teeth on our knuckle-bones and toughening our lungs on young warhoops, but we are always on the hind side and either we are not going the way we are headed or we are headed the way we are not going. Who knows? Either way we shall come at the polls, we fellows—as citizens perhaps, ballot in hand, as outlaws maybe with tomahawk aloft and hang 'em at our belt—the polls. Hoopla! Toss up.

"They say there are white babies who are carried upon their mother's hearts and next to their cheeks; these babies always look forward, and everything starts small and grows large and comes toward them, and they can catch it if they wait it. These babies have their eyes and ears trained to find out what is coming, their foreheads bulge out to meet future events, and their noses are sharpened upon them as they whiz by. So these babies grow to be strong men. They talk with the lightning; fire and water are their horses, and the smoke is their banner. The forests and the mountains bow down to them.

"Oh, old Mother Government, take up my poor people and bear them upon thy heart! feed them with the milk of human kindness; give them justice, and teach them, by example, the law of love. Then shall my people lift up their heavy hands; they shall look forward, and not backward, up and not down, and lend a hand."

From time to time we have had an occasional talk over some nationalities, and their several types, but I ask you could any be found of deeper interest to our readers, whether of Eastern or Western Canada, than that of our red-skinned brothers and sisters, who once, claiming them as their own, roamed at will over the forests and prairies of what we are proud to call the Dominion of Canada?
H. A. B.



The Picture Book.

GOURLAY, WINTER & LEEMING
188 YONCE STREET, TORONTO

ALTERATION SALE OF ORGANS

Every Parlor Organ in our warehouses offered at a Sacrifice Price

We are shortly to commence the remodeling of our warehouses from cellar to fourth floor. In order to facilitate the handling of our business during alterations we have decided to reduce our stock and now offer the contents of one entire floor—every Parlor Organ in the warehouses—new and used, five, six and seven octave, cabinet and piano cased styles—and all at prices so low as to hurry them away.

In ordering, send your second choice. In case the first should be sold before your order is received.

TERMS OF SALE

Organs under \$50 \$5 cash and \$3 per month without interest
Organs over \$50 and under \$100 \$10 cash and \$4 per month without interest
Organs over \$100 and under \$150 \$15 cash and \$5 per month without interest
Organs over \$150 and under \$200 \$20 cash and \$6 per month without interest

If monthly payments are not convenient, please state what method you prefer—quarterly, half-yearly or at certain fixed dates. We wish to know what terms will suit you. A discount of 10 per cent. off these prices for cash. A stool accompanies each organ. Every instrument safely packed without extra charge. We guarantee every instrument, and agree to pay the return freight if not satisfactory.

1. **STERLING**—5-octave Walnut Organ, has 9 stops, 2 full sets of reeds, small top, 2 knee swells, etc., height 5 feet 3 inches, in good order. **\$ 23**
2. **DOMINION**—5 octaves, 8 stops, 3 sets of reeds in treble and 2 in bass, knee swell, etc., walnut case with beautifully paneled ends, height 4 feet 3 inches. **28**
3. **BELL**—5 octaves, 10 stops, 2 sets of reeds throughout, couplers, 2 knee swells, pretty walnut case with high back and music rack, height 5 feet 9 inches. **39**
4. **SHERLOCK & MANNING**—NEW—A handsome Walnut Organ, with high back and beveled mirror, 5 octaves, 10 stops, 2 couplers, 2 knee swells, mouseproof, etc. A fine organ, height 6 feet 4 inches. Catalogue price, \$160.00. **49**
5. **DOMINION**—NEW—Solid Walnut Organ, with mirror top, handsomely carved, 5 octaves, 10 stops, 2 couplers, 2 knee swells, mouse proof, etc., height 6 feet 1 inch. Catalogue price, \$160.00. **53**
6. **DOMINION**—NEW—The same organ as number 5, but with a sub-bass stop and set of reeds added. Catalogue price, \$175.00. **56**
7. **DOMINION**—PIANO CASE—6 octaves, 11 stops, 2 full sets of reeds, 2 couplers, 2 knee swells, automatic pedal cover, nice rose-wood finish case, height 4 feet 7 inches. **63**
8. **BERLIN**—PIANO CASE—6 octaves, 11 stops, 2 sets of reeds, 2 couplers, 2 swells, etc., handsome walnut case, with lamp brackets, etc., height 4 feet 8 inches. **65**
9. **ESTEY**—NEW—Very handsome golden oak case, with mirror top, 5 octaves, 11 stops, 2 couplers, 2 knee swells, etc., height 6 feet 4 inches, an excellent sample of these celebrated organs. Catalogue price, \$210.00. **67**
10. **ESTEY**—NEW—6-octave Estey Organ, very handsome walnut case, with beautiful mirror top, 11 stops, 2 couplers, 2 knee swells, mouseproof, etc., height 7 feet. Catalogue price, \$250.00. **81**
11. **DOMINION**—PIANO CASE—6 octaves, solid walnut case, hand-carved panels, lamp stands, 11 stops, couplers, knee swells, mouseproof, etc., used only a few months. Catalogue price, \$250.00. **82**
12. **DOMINION**—NEW, PIANO CASE—Same organ as number 11, but with mirror top, and brand-new instrument. **87**
13. **SHERLOCK & MANNING**—NEW, PIANO CASE—6 octaves, 13 stops, 2 couplers, 2 knee swells, etc., solid walnut case with beveled mirror in top, a splendid organ. Catalogue price, \$270.00. **88**
14. **SHERLOCK & MANNING**—NEW, PIANO CASE—the same organ as number 13, but in particularly handsome figured walnut case, and without top. Catalogue price, \$280.00. **89**
15. **DOMINION**—PIANO CASE—The handsomest piano case organ ever made by this company, walnut case with two beveled mirrors in top, carved panels and automatic pedal cover, 11 stops, couplers, knee swells, etc. Catalogue price, \$300.00. Used only a few months. **91**
16. **SHERLOCK & MANNING**—NEW, PIANO CASE—New Colonial design in golden oak, by many said to be the handsomest organ made in Canada, has 13 stops, couplers and knee swells, etc., a full rich tone and splendid action. Catalogue price, \$290.00. **94**
- 17-18. **DOMINION**—NEW, PIANO CASE—Two only, of the same style as number 15, but brand-new instruments. **96**
19. **ESTEY**—7½-octave, new style piano case organ, in design of case so like a piano you would mistake it for one. Has full length music desk, Boston fall board and three pedals resembling those in a piano, two for pumping and the third operating the couplers. A distinct advance over any other parlor organ. **134**
20. **ESTEY—An Art Organ for Musicians**
In mahogany case, Empire design, piano style, complete with bench. We give the specifications below, and would just add that the reeds throughout are the celebrated Philharmonic reeds:—

BASS		TREBLE	
Harp Solenne, 2 ft.	Roman Pipe, 2 ft.	Flute, 4 ft.	Diapason, 8 ft.
Viola, 4 ft.	Viola, 4 ft.	Vox Jubilante, 8 ft.	Choral, 8 ft.
Melodia, 8 ft.	Sub-bass, 16 ft.	Clarinet, 16 ft.	Coupler.
Coupler.	Vox Humana.		

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GOURLAY, WINTER & LEEMING
188 YONCE STREET, TORONTO
Hamilton Warerooms—66 King St. W.



English Ivy.

Miss M. E. S. writes: "Could you give a treatise on the English Ivy in one of your earliest issues? I expect to get a slip from England about 1st of April, and would like to know how to start it, water it; in fact, all about it. I very much enjoy Flora Fernleaf's talks on flowers, they are so instructive; in fact, we think the 'Farmer's Advocate' a splendid all-round paper; it could scarcely be beaten."

Ans.—Slips of English Ivy are easily started by placing in clean sand and keeping moist, or by wrapping the end in a ball of shagnum moss, and placing it in a jar where the moss can be kept constantly damp. When rooted, pot in good garden loam; keep the soil moist (not wet) and train up around the window and walls as it grows. It is best to place the pot in the light where the soil will be kept sweet, but the leaves will flourish anywhere on the walls, their only requirement being frequent sponging to keep off the dust. If scale or mealy bugs appear, take off with a blunt knife, or wash with a solution of fir-tree oil soap. The English Ivy will not grow outside in Canada, but is admirable for inside decoration.

Pansy seed may be sown in August, or very early in spring in flats. Many people, however, prefer to buy the plantlets from a greenhouse, and set them out in the garden when already well on the way toward flowering. Many others have beds held over from last year; so it is with these already-started plantlets, and not with the starting of them, that we will to-day deal.

Make the pansy bed a few days before the plants are to be set out. The soil should be pulverized thoroughly and mixed with good leaf mould and some cow manure which is so old and well rotted that it somewhat resembles old, rich soil. If this old manure cannot be procured, chip dirt with a plentiful sprinkling of soot is good, or pure leaf-mould even, when it can be had conveniently in a sufficient quantity. Most people hold that the pansy bed should be made in a place where it will be in partial shade; others, however, maintain that it will give even better results in full sunlight, that the plants will be more sturdy there, and the flowers more brilliant in coloring.

Wherever the spot selected, set the plants but nine inches apart, and remember to keep them well watered. A thorough drenching once or twice a day will not be found too much; the drier the situation, the more water required. Soot tea, made by soaking soot in water, will also be found very beneficial, but care must be taken that it does not fall on the foliage. If fungous disease should attack the plants, spray with Bordeaux mixture. Mildew may be treated by dusting with sulphur.

Above all things do not neglect to remove all blossoms as soon as they begin to wither. It will pay to buy new seed every time, as seeding invariably weakens the plants, makes the succeeding blossoms smaller, and shortens the season of bloom. By going over the bed in this way every day, and seeing to it that plenty of water is given, you may induce your pansy beds to put forth their best efforts until quite late in the fall. If, however, for any reason, the flowers seem to be diminishing in size, and the plants beginning to sprawl and become unattractive, you may remove them, and fill up the bed with tuberous begonias, ageratum, or petunias.

Among pansies, which are highly recommended, are the following: Giant Black; Snow Queen; Giant Yellow; Giant Trimardeau (mauve and purple); Giant "Madame Perret" (reddish shades).

FLORA FERNLEAF,
"Farmer's Advocate" office, London,
Ont.

How to Keep a Boy at Home.

By Mrs. Annie Rodd, Charlottetown.

Although much has been written on this, or similar subjects, yet the problem appears to be as far as ever from being solved, for many of the boys continue to leave the old homestead to seek their fortunes in distant lands. One thing is certain, however, if the boy once makes up his mind to leave home, it is generally very little use to try to oppose him or keep him against his will. The couplet reads:—
"A man convinced against his will
Is of the same opinion still."

I suppose this will apply to the boy as well. It would be hard, indeed, to convince a boy he should remain home when he has made up his mind to go away. It is too late in the day then, the lessons should have been given him in the early morning of life. This is the proper time to take "the impression" (as it were), which will remain firm and steadfast. Surely what is needed is to so train and educate the boy from his infancy that he will not wish to leave his beloved birth-place. But the training cannot be commenced too early. As soon as he is able to toddle around, or even before, the parents should give him good practical lessons. Not only by precept, but by example should the little innocent one be taught. The parents should never forget the responsibilities of their position. They should live nigh to God, and thus set the child a noble example. Honesty and truth should not only be strictly enjoined, but lived, and the home should be a true haven of rest. Very early the boy should be taught to love the beauties of Nature and the free enjoyable life on the farm. He should be taught to love the animals and always treat them with kindness. When the boy tries to do his very best the parents should let him know that they appreciate his efforts.

"Parents, don't be afraid to praise your boy, it will encourage him and act as a stimulant to future efforts. Take the chubby little man out to the fields and do all in your power to interest him in farming. Fathers, never let him hear you complain of hard times or of farming being hard work, for this might lead him to seek another vocation later on. As he grows older do not relax your efforts to keep up his interest in the farm. Give him a piece of land, a fruit tree or one of the calves for his own. This will please and interest him, and he will thoroughly enjoy the responsibility. When you are about to engage in any new method of farming, or invest in new machinery, talk over the matter with your son. Let him see that you love him and value his opinion. Treat him as a trusty, worthy, intelligent boy, never suspect him of doing wrong. Suspicion kills ambition, therefore parents should be careful on this point. If strict obedience is enforced in early infancy the child will be easily managed after he grows older. The proper time to "break in" a boy is before he is three years old; then it is easily done, as a general rule; if the parent practices firmness, gentleness, and self control, love will conquer. Keep your home well supplied with good literature. A careful perusal of the Advocate every week will arouse his enthusiasm and interest him in farming.

Don't scold or find fault with him; if he happens to make a mistake sometimes, remember you were not perfect yourself when you were a boy. Exercise cheerfulness and avoid worry. Take an interest in your boy's likes and dislikes, encourage him to confide in you and tell you all his joys and sorrows. Give him a little pocket money sometimes, for it makes a boy feel independent to have his own purse.

This is the gospel of labor—
Ring it ye bells of the kirk,
The Lord of love came down from above,
To live with the men who work.

—Van Dyke.

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



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Shirt waist suits. \$4.50 a tailored waist in spring style supplied instead of a coat if preferred.

Shirt Waist Suits from lustre or mohair, any shade, made in latest spring style waist and skirt \$4.50.

Skirts alone from any of the goods \$2.50 like model.

Waists. Spring styles, any shade China Silk \$2.25, best suits all shades \$2.35, lustre all shades \$1.50, veils \$2.00, white lawn \$1.00 Insertion trimmed. All waists are new styles, large puff at shoulder tucked sleeve from cuff up to elbow, box pleat-down front clusters of tucks on each side of box pleat, tucked back. Tucks may be fine or wide as desired, the waists are elaborately trimmed with buttons. Send to-day. Add 15c postage for waists.

Ensembles. \$7.00 for 412 kind, Cravenette all shades.

Jackets, like model shown or box style in cloth like suits \$2.50. Black taffeta silk \$5.50, Black china silk \$4.00, Black velvet \$3.35. Beautifully made.

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Home.
Whether in the Arctic Circle
Or in India's coral strands,
Where the winds are perfume laden
And warm waves caress the sands,
Whether eastward, whether westward,
When the daylight fades to gloom,
Where a baby runs to meet you,
And to kiss you, that is home.

Where a baby runs to meet you—
That is all there is in life;
All there is at all worth winning,
Worth the slaving and the strife;
Two wee dimpled arms stretched to you,
Two expectant eyes that wait;
It is home for you wherever
There's a baby at the gate.

It is home—sweet home—forever,
Where the lilts of laughter run
Of a tousle-headed baby,
Sitting playing in the sun;
It is home where every night time
As the evening shadows creep
A wee night-robed figure whispers:
"Now I lay me down to sleep."

Is Your Cellar Clean?

The approach of spring naturally turns our minds to thoughts of housecleaning. The cellar should be the point of attack. A great many people store their winter vegetables there; some are obliged to do so, and by the time spring comes the atmosphere is disagreeable and unhealthy. Vegetables should not be kept in the house at all if it can be avoided. The cellar is of no great advantage for any purpose except to contain the furnace room and coal, unless it is dry, well lighted, easily aired and clean. Many otherwise immaculate housekeepers appear not to mind considerable dirt in the cellar, whereas it is quite as necessary for cleanliness to prevail there as in the attic or any other part of the dwelling. Half-decaying vegetable matter provides an especially favorable residence for every kind of germ. The rough woodwork of a cellar is another trap for all kinds of germ-laden dust.

The ideal cellar has a separate room for furnace and coal, a concrete floor and several windows, so arranged that opening them does not mean letting in an accumulation of ice and snow. Cellar windows are necessarily just beneath the ground-floor level, and consequently just below the cellar ceiling, and if made with one movable square pane in each, afford a means of thoroughly changing the air in a few moments. Cellar stairs have been the death of many a woman, both on account of their not being protected by a railing, as a rule, and because they are generally steep and awkward; the treads are too narrow and the risers too high, and the woman goes up and down many times during the day carrying something, often of a pretty fair weight. The result is excessive fatigue. It would be a good investment in building a house to see that the cellar is light, that the woodwork is at least planed, and to provide a well-built flight of stairs with bannisters. Stairs are bad enough, without being badly built. There should also be a landing at the top, so that the threshold of the door leading to the cellar is not the top of the last stair, coming up. All these things make a great difference to the people who have to attend to the household matters in point of fatigue, consequently nervousness, consequently good temper.

Vegetables should be kept in a root house, or a shed put up for that purpose. An accumulation even of fresh vegetables has a disagreeable smell, and time, combined with a stuffy cellar, does not improve it. Air and

sunlight are disinfectants in themselves, and anything that cannot be safely exposed to air, at any rate, should be kept out of the house where people live. A. G. OWEN.

Tired Mothers.

A little elbow leans upon your knee,
Your tired knee that has so much to bear;
A child's dear eyes are looking lovingly
From underneath a thatch of tangled hair.
Perhaps you do not heed the velvet touch
Of warm, moist fingers, folding yours so tight;
You do not prize this blessing over-much—
You almost are too tired to pray to-night.

But it is blessedness! A year ago
I did not see it as I do to-day—
We are so dull and thankless, and too slow
To catch the sunshine till it slips away—
And now it seems surpassing strange to me,
That, while I wore the badge of motherhood,
I did not kiss more oft and tenderly
The little child that brought me only good.

I wonder so that mothers ever fret
At little children clinging to their gown:
Or that the footprints, when the days are wet,
Are ever black enough to make them frown.
If I could find a little muddy boot,
Or cap, or jacket, on my chamber floor—
If I could kiss a rosy, restless foot,
And hear it patter in my house once more—

If I could mend a broken cart to-day,
To-morrow make a kite to reach the sky,
There is no woman in God's world could say
She was more blissfully content than I.
But, ah! the dainty pillow next my own
Is never ruffled by a shining head;
My singing birdling from its nest is flown—
The little boy I used to kiss is dead!
—May Riley Smith.

To Cook Dried Fruit.

Success in cooking dried fruits depends largely upon little cooking and long soaking. Cover the fruit with cold water and let it stand a short time to soften any dirt that may adhere to it. Then wash the fruit, rubbing it carefully between the hands. Thoroughly rinse the fruit and cover it with plenty of cold water, letting it soak twenty-four hours. Then drain out the fruit and to the water add half a pound of sugar for each pound of dried fruit. When the sugar and water have cooked clear, put in the fruit, taking care not to crowd it, and only cook it until it is just tender.

When making layer cake, if there is not time to line the tins with paper, the cake is not so likely to stick if after the tins are greased they are lightly dredged with flour.

THE HEAT OF THE OVEN.

For angel cake, sponge cake, pound cake and kisses, have the oven so cool that it will require five minutes to turn a piece of white paper light yellow. For all butter cakes, have the oven so as to color the same kind of paper dark yellow in the same length of time.

For bread, have the oven hot enough so that there will be little specks of brown on the bread in ten minutes. For rolls, have the oven as hot as you can without burning the article cooked. When the crust of the pie is cooked, lower the heat to allow all the fruit to cook, if not already done.

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13. Bell Organ, high back with mirror, 6 octaves, 11 stops, 4 sets of reeds, treble and bass couplers, grand organ and knee swell, cylinder fall, mouse-proof pedals.....	62 50
14. Dominion Organ, high back with mirror, 10 stops, 6 octaves, 4 sets of reeds, octave coupler, grand organ and knee swell; a very handsome organ, with extension ends; in beautiful condition.....	63 00
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16. Dominion Organ, 6-octave piano case, with 11 stops, 4 sets of reeds, treble and bass couplers, grand organ and knee swell, folding mouse proof pedals, at.....	67 00
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21. Goderich Organ, piano walnut case, 6 octaves, 11 stops, including vox humana stop, 4 sets of reeds, treble and bass couplers, grand organ and knee swell, practically new. Regular price, \$125, special at.....	83 00
22. Thomas Organ, with rail top and mirror, walnut piano case, beautifully decorated top door, continuous music rack, 6 octaves, 11 stops, including vox humana stop, 4 sets of reeds, treble and bass couplers, grand organ and knee swell. Used less than 3 months. A beautiful parlor organ. Regular price, \$125, special at.....	87 00
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In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE.



The following letters will explain themselves. That of B. S. is certainly a revelation; one could scarcely have believed that conditions such as those described could be common to any community in the Dominion. Poverty and hardship a true woman can face somehow, if she has to, but to be "cursed" at for making a simple request is dreadful. It is to be hoped that a few of the men, such as those whom she describes, will read her letter, and resolve to turn over a new leaf in the future. In marked contrast to this letter comes Gertrude's. It is a pleasure to peep into a happy home such as hers, and a pleasure also to be able to tell you that the great majority of the letters which have come in resemble hers in that they have nothing but good to say of the farm life, and the farmer husbands. We shall publish these, or extracts from them, just as soon as possible.

DAME DURDEN.

"Farmer's Advocate" office, London, Ont.

ROOM FOR A CHANGE.

Dame Durden,—As regards the happiness or otherwise of the farmer's wife, I am convinced that very few of them would complain or wish to leave the farm, if they had any thought given to their needs or comfort. There are very few women wholly devoid of sentiment or love of the beautiful. As a rule, these attributes are far from a blessing to a woman who lives on a farm. No doubt, there are some farmers who take a pride and interest in their homes, and make of them a spot of beauty; but, indeed, they are the exception. How often you hear a hard-working farmer's wife say: "Oh, my garden is not much to look at. The men will not bother plowing it, and I am not able to dig it properly." Yet you can see those same farmers sitting on the fence idle long enough to spade the entire garden twice over. I do not mean to say that men should not relax and take a rest, but I do think that they might spade the garden first.

Marriage, in its most sordid meaning, is at least an even partnership between a man and woman. How often the wife becomes a nonentity as regards the distribution of the proceeds the unhappy, discontented wives of our country testify. Why, or how a man can claim the title of honesty, and at the same time not only cheat his partner in life of her just share and due interest in the joint concerns of life, but even deny her the satisfaction of a deserved word of praise, is beyond me. How would the same conduct appear in the eyes of the public, if it were acted between man and man? The usurper would be justly called a plain thief. Does it make the action noble or honest because it is only a helpless woman whom he is defrauding? Were he to act in the same manner with a woman who was not his wife, he would be prosecuted as a villain. You may say the wife has her "keep." Has not the husband his "keep," and his extras in the way of tobacco and liquor? If the men were only honest enough to make a plain, honest statement as to the course of action they meant to take after partnership was contracted, I am positive not one woman in the full possession of her senses would enter into the net. Do men consider it right or just to never let the wife handle one dollar the year round? Is that their idea of the golden rule, or a joint partnership?

How I wish I could take Dame Durden to see some of my neighbor women. Where there is a henhouse or garden fence, the women have put them up; mud roofs on most of the homes, and rain and mud dropping on the table during mealtime; every morsel in the house frozen to resemble stone during the winter. Is it any wonder women are not content to live like that? When it rains, mud up to the ankle; the men cannot trouble to scrape it off, so come in loaded with mud and manure, shuffle their

feet well, and leave it for their wives to clean up.

We all like to have our labor duly appreciated. Why does the average husband deny the coveted bit of praise for which his wife hungers? He gave it in abundance when they were lovers, why not now? Oh, how an act of kindness, or word or praise, would lift the heavy heart. It would not cost even one cent of that beloved object, his money; yet he is not honest enough to bestow it. Ask him to plant trees around the home, and you are cursed for your trouble. Ask for a pump or closet, the same result follows. Ask for small fruit, you are told you are insane. Now, this is a really true picture of by far the greater number of farmer's homes in some vicinities, and it is the lack of all that constitutes a real home that makes women detest the farm. It remains in the hands of the farmer to remedy the evil.

Alta.

B. S.

A WORD FOR THE O. A. C. BOYS.

Dear Dame Durden,—Being an interested reader of Ingle Nook Chats, and having just finished Marie's letter, I, too, think I will give a few of my views regarding that Illinois letter.

Two years ago I married a farmer (gentleman), and having spent all my previous life in a parsonage, you can imagine the change in regard to work. However, I always found work a splendid friend, and so get along famously. If a person has a good system and strictly follows it, work is made much more easy. In modern farm homes there are so many conveniences—in fact, almost like town homes—work is made much lighter. However, as yet we have none of these conveniences, but hope to some time. I find it rather inconvenient in winter, regarding water, for instance.

No farmer's wife needs to be a slave, and if she is, it is her own fault. Of course, I know there are men who are nothing but brutes, and who rather enjoy seeing the women doing all the drudgery, but a woman should simply refuse to do it. That Illinois farmer is a sample. He should be tarred and feathered.

Country life is superior to city life for many reasons. We have "disadvantages," of course, but we have advantages too. If we choose, we can spend all day at our work, but for my part, I prefer devoting the afternoon to music, fancywork or reading. I am as fond of a clean home and a good table as any one, but I do not believe in making a slave of myself.

It does seem unfortunate that so many of our young men are growing up with the impression that the women have as much right to milk and chore around as themselves. Why, surely then can see that a woman's hands are full with her house alone, without working in the barn or barnyard. A woman's place is in the home, not outside.

Truly, dear Dame, I could write columns on this interesting subject, for I do think it disgraceful that some women have to slave so. I have only had two years' experience, so do not know a great deal about it, but am sure time will never make a slave of me.

Fortunately for me I won a real, true gentleman for a husband, and he treats me as a wife should be treated. He was a student at Guelph College, and that may have given him some ideas; if so, I would advise all young farmers to take a course there and prepare themselves for husbands, not for slave-drivers.

Trusting to see many more letters.
Bedford Park. GERTRUDE.

A MAN'S OPINION.

Dear Madam,—In answer to "Martha's" (Oxbow, Assa.) query about butter bowls, I have used mine, a common one, six or seven years now, without the least check. I think the secret lies in never soaking a bowl through. When I use mine, I scald it with the water used to scald the churn, in which I always put a little washing soda. When well soaked,

I empty and refill with cold water. After working the butter, I wash first with tepid water, then scald, and set away. To scrub the outside, I turn it over on a table, scrub with soap, and rinse—never soak in water. I have heard that some people grease them when new, before using, but know nothing of the process. I may add that to keep a churn in good condition, it should be thoroughly washed with cold water immediately after the butter is taken out, so that no particle of butter can melt into the wood. The metal ring should be scoured with salt inside.

All water used for soaking, scalding or washing the butter bowl and churn should be strained in through the quality of cotton used for inside sugar sacks. It is surprising the amount of dirt which will be taken out.

With respect to Illinois Farmer's Wife's letter, I am astonished from my knowledge of Americans that he is allowed to exist. There are numbers of such husbands in the world. The best remedy for such a state of affairs is for every mother to see that her daughter has some occupation, which she should learn thoroughly enough to be able to get her own living by, if needed. In this particular case, the woman is to blame for doing so much work. Surely she might have done a little more, and then "Farmer" would not have to work at all. He cannot be much of a hustler, unless at whittling before the chores. Men are naturally tyrants, and the more they are indulged, the more tyrannical they become; particularly as all men are childish in some way or other, a fact which, perhaps, accounts for the material element in a woman's love for a man. Good-bys, Dame Durden, with best wishes for your success, also that of the paper, which deserves it.

QUO VADIS.

Langley Prairie, B. C.

A POOR LITTLE CHORE GIRL.

Dear Dame Durden,—For a long time I have been longing to be one of you, but was too timid to knock for admittance; but I am going to try now. I enjoy the Chats very much, and find much useful information in your Ingle Nook.

We have a farm, and there is a lot of work to be done on it. We have twenty-five head of cattle, two horses, and about fifty pigs, and as father is so busy working all the time, I have to be the little chore girl. I have to feed the pigs and cattle, and cook five sacks of potatoes a day for the pigs when we are fattening them, and many other things I have to do. I think it is a little too hard for a girl to do; what do you think about it?

Well, as this is my first visit to the Nookers, I will close, hoping you will not be disgusted with me. I may not come again.

LITTLE CHORE GIRL.

Be sure to come again, brave Little Chore Girl. I wish we knew how to make things easier for you.

A Dog's Sense of Humor.

The following bit of news from New York City certainly proves that dogs think, and that they are sometimes struck with a sense of humor, as are human beings. It is related that "the proprietor of a Third Avenue store owns a little black kitten, that cultivates a habit of squatting on its haunches, like a bear or a kangaroo, and then sparring with its forepaws, as if it had taken lessons from a pugilist. A gentleman took into the store the other evening an enormous black dog, half Newfoundland, half collie, fat, good-natured, and intelligent. The tiny black kitten, instead of bolting at once for shelter, retreated a few paces, sat erect on its hind legs, and 'put its fists' in an attitude of defiance. The contrast in size between the two was intensely amusing. Slowly, and without a sign of excitability, the huge dog walked as far as his chain would allow him, and gazed intently at the kitten and its odd posture. Then, as the comicality of the situation struck him, he turned his head and shoulders around to the spectators, and if animal ever laughed in the world, that dog assuredly did so then and there. He neither barked nor growled, but indulged in a low chuckle, while eyes and mouth beamed with merriment. It is nonsense for people to maintain that animals do not reason."

The Average Man Doesn't Know The First Thing

about flour, but the woman who does the family baking—she is the one who appreciates Royal Household Flour—made by the new electrical process—because when she tries it with the simple "Royal Household" recipes she finds it makes better, sweeter, whiter, lighter Bread, Buns, Rolls, etc., and more crisp and delicious Pastry than she ever made before, and she is not afraid to say so.

South Range, Digby Co., N. S., November 22nd.

"I want to tell you that Royal Household Flour is the best I ever used in all my life, and the only kind I will have as long as I can get it."

(Signed.) MRS. ALEX. PORTER.

To any woman sending in name and address to The Ogilvie Flour Mills Co., Limited, Montreal, and mentioning this paper, these recipes will be sent FREE.

DOES QUALITY COUNT WITH YOU IF SO WE CAN INTEREST YOU

THE Frost & Wood Company Limited

For over half a century we have been manufacturing plows. We have long since passed the stage when the building of plows was an experiment, but having profited by those years of experience, we are now building a complete and successful line of plows for use in all kinds and conditions of land. Once we sell a customer a plow he is always our friend—that is the best recommendation we can give you.



FROST & WOOD NO. 21 PLOW.

The **MOULDBOARDS** on all our Plows are soft-centre crucible steel—a material specially manufactured for the purpose. The **HANDLES** on all F. & W. Plows are fitted by hand and carefully adjusted before leaving the factory. The **CLEAVES** and **JAWS** on all F. & W. Plows are of malleable iron. The clevis can be promptly adjusted to act either as a stiff or swinging clevis.

Send for our Catalogue "F" and get acquainted with our line.

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Quebec,
Truro, St. John,
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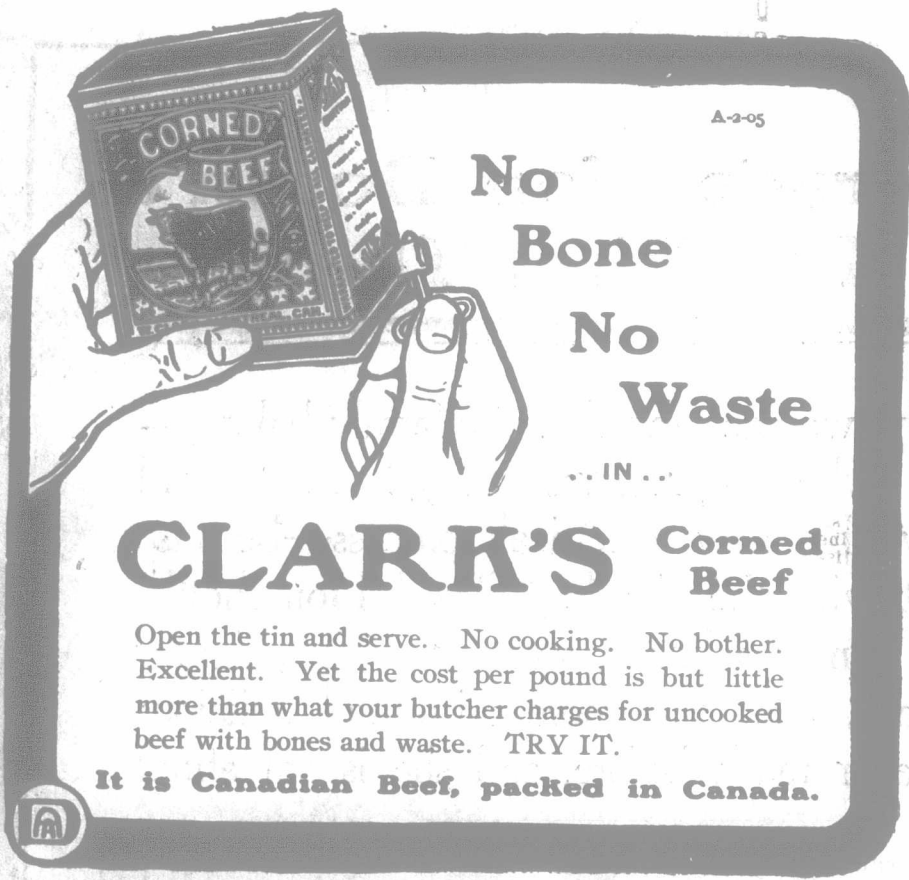
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No Bone No Waste
... IN ...

CLARK'S Corned Beef

Open the tin and serve. No cooking. No bother. Excellent. Yet the cost per pound is but little more than what your butcher charges for uncooked beef with bones and waste. **TRY IT.**

It is Canadian Beef, packed in Canada.

Your New Barn

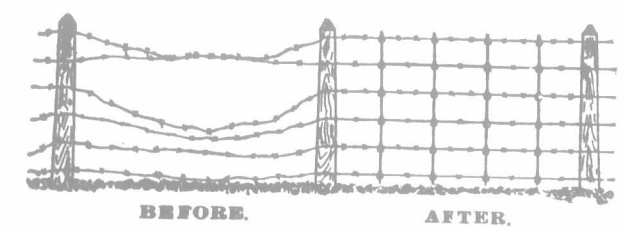


U Bar Steel Stanchion
which is a superior construction for fastening stock. The adoption of this stanchion with the latest construction of stalls results in a big saving in first cost of equipment and in preventing waste of feed. We also supply

Steel Watering Bowls
which automatically supply a constant supply of water to stock. If you are building a new barn, want to save money, and have the best and neatest stalls and stable fixtures, write us for particulars, advising number of cattle you stable. If you have an old barn you should re-model the stabling.

ASK FOR CATALOGUES.
See our advertisement in last week's issue regarding Roofing.

Metal Shingle & Siding Co., Ltd.
Dept. 8, - Preston, Ont.



BEFORE **AFTER.**

The left-hand side of this cut shows the ordinary barbed-wire fence—a constant source of danger to stock. The other side shows it after the application of the

ANCHOR SYSTEM

The fence is strengthened and the danger removed. We will gladly give you an estimate of cost of fixing up your fences in this way. Send for our catalogue. Write us for prices on **FARM and ORNAMENTAL GATES and FENCING WIRE.**

ESPLEN, FRAME & COMPANY, STRATFORD, ONT.

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

The LEAVENWORTH CASE

By A. K. Green.

CHAPTER XXIII.—Continued.

I felt a deathly chill strike me, "Yes," I replied, "a few."

"Would you mind naming them?" she asked in a low distinct voice.

"Certainly not," I returned. "Mrs. Veeley, of course, Mrs. Gilbert, Miss Martin and a—"

"Go on," she whispered.

"A gentleman by the name of Claverling."

"You speak that name with evident embarrassment," she said, after a moment of intense anxiety on my part. "May I inquire why?"

Astounded, I raised my eyes to her face. It was very pale and flashed like marble in the firelight, and wore the old look of self-repressed calm I remembered so well. I immediately dropped my gaze.

"Why? Because there are some circumstances surrounding him which have struck me as peculiar."

"How so?" she asked.

"He appears under two names. To-day it is Claverling; a short time ago it was—"

"Go on."

"Robbins."

Her dress rustled on the hearth; there was a sound of desolation in it, but her voice when she spoke was expressionless as that of an automaton.

"How many times has this person, of whose name you do not appear to be certain, been to see Mary?"

"Once."

"When was it?"

"Last night."

"Did he stay long?"

"About twenty minutes, I should say."

"And do you think he will come again?"

"No."

"Why?"

"He has left the country."

A short silence followed this.

"Mr. Raymond," she said at length in a changed tone, "the last time I saw you, you told me that you were going to make some endeavor to restore me to my former position before the world. I did not wish you to do so then, nor do I wish you to do so now. Can you not make me comparatively happy, then, by assuring me that you have abandoned or will abandon a project so hopeless?"

"It is impossible," said I; "I cannot abandon it. Much as I grieve to be a source of sorrow to you, it is best you should know that I can never give up the hope of righting you, while I live."

She put out one quick hand in a sort of hopeless deprecation inexpressibly touching to behold in the fast waning firelight. But I was relentless.

"I should never be able to lie quietly in my grave if through any weakness I should miss the blessed privilege of setting a wrong right, and saving a noble woman from unmerited disgrace." And then seeing that she was not likely to reply to this, drew a step nearer and said: "Is there not some little kindness I can show you, Miss Leavenworth, which you can mention before we part; some message you would like taken, or some action performed which only a friend could do?"

She stopped to think. "No," she said, "I have only one request to make, and that you refuse to grant."

"For the most unselfish of reasons," I urged.

She slowly shook her head. "You think so," murmured she; then before I could reply: "I could desire one little favor shown me, however."

"What is that?"

"That if anything should transpire; if Hannah should be found, or—or my presence required in any way, you will not keep me in ignorance. That you will let me know the worst when it comes, without fail."

"I will."

"And now good-night; Mrs. Veeley is coming back, and you would scarcely wish to be found here by her."

CHAPTER XXIV.

A Report Followed by Smoke.

When I told Mr. Gryce that I only waited for the determination of one fact, to feel justified in throwing the case unreservedly into his hands, I alluded to the proving or disproving of the supposition that Henry Claverling had been a guest at the same watering-place with

Eleanor Leavenworth the summer before.

When, therefore, I found myself the next morning with the visitor-book of the Hotel Union at R—in my hands, it was only by the strongest effort of will that I could restrain my impatience. The suspense, however, was short. Almost immediately I encountered his name written not half a page below those of Mr. Leavenworth and his nieces, and whatever may have been my emotion at finding my suspicions thus confirmed, I recognized the fact that I was in the possession of a clue which would yet lead to the solving of the fearful problem which had been imposed upon me.

Hastening to the telegraph office, I sent a message for the man promised me by Mr. Gryce, and receiving for answer that he could not be with me before three o'clock, started for the house of Mr. Monell, a client of ours, living in R—. I found him at home, and during our interview of two hours, suffered the ordeal of appearing at ease and interested in what he had to say, while my heart was heavy with its first disappointment and my brain on fire with the excitement of the work then on my hands.

I arrived at the depot just as the train came in. There was but one passenger for R—, a brisk young man, whose whole appearance was so different from what I expected Q's to be that I at once made up my mind he could not be the man I was looking for, and was therefore turning away when he approached and handed me a card on which was inscribed a single character "Q". Returning his bow with a show of satisfaction, I remarked:

"You are very punctual; I like that."

He gave another short, quick nod.

"Glad, sir, to please you. Punctuality is too cheap a virtue not to be practised by a man on the look out for a rise. But what orders, sir? Down train due in ten minutes; no time to spare."

"Down train? What have we to do with that?"

"I thought you might wish to take it, sir; Mr. Brown"—winking expressly at the name—"always checks his carpet-bag for home when he sees me coming. But that is your affair; I am not particular."

"I wish to do what is wisest."

"Go home, then, as speedily as possible." And he gave a third sharp nod exceedingly business-like and determined.

"If I leave you, it is with the understanding that you come first to me with your information. That you are in my employ and in that of no one else for the time being, and that mum is the word till I give you liberty to speak."

"Yes, sir. When I work for Brown & Co., I work for them; and when I work for Smith & Co., I work for them."

"Very well, then," said I, giving him a memorandum I had made before leaving Mr. Monell's, "here are your instructions."

He looked it over with a certain degree of care, then stepped into the waiting-room and threw it into the stove, saying in a low tone: "So much in case I should meet with any accident; have an apoplectic fit or anything of that sort."

"But—"

"Oh, don't worry; I shan't forget. I've a memory, sir. No need of anybody using pen and paper with me." And laughing in the short, quick way one would expect from a person of his appearance and conversation, he added: "You will probably hear from me in a day or so," and bowing, took his way down the street just as the train came rushing up to the depot where I was.

My instructions to Q were as follows:

1. To find out in what day and in whose company the Misses Leavenworth arrived at R—the year before. What their movements were while there, and with whom they most consorted. Also the date of their departure and such facts as could be gathered in regard to their habits, etc.
2. Ditto in respect to a Mr. Henry Claverling, fellow-guest and probable friend of said ladies.
3. Name of the individual fulfilling the following requirements. Clergyman, Methodist, deceased since last December or thereabouts, who in July of '75 was located in some town not over twenty miles from R—.
4. Also name and present whereabouts of a man at that time in service of the above.

(To be continued.)

No Breakfast Table complete without

EPPS'S

An admirable food, with all its natural qualities intact, fitted to build up and maintain robust health, and to resist winter's extreme cold. It is a valuable diet for children.

COCOA

The Most Nutritious and Economical.

HOME STUDY

Applied to our special courses given by mail in Bookkeeping, Business Forms, Arithmetic, Penmanship, Shorthand, Typewriting, Illustrating and Advertising will produce good results for any ambitious young man or woman who wishes to qualify for a better position in life.

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Central Business College
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A strong school with twenty regular teachers, splendid equipment, and well patronized by students from every Province of the Dominion. Write
W. H. SHAW, Principal.

DORSET HORN SHEEP and SCOTCH SHORTHORNS

The latter representing the Nonpareil, Miss Ramsden and Missie families exclusively, and the former comprising more Royal winners and more St. Louis prizewinners than any other flock in the world. Stock for sale all ways on hand.
John A. McGillivray, North Toronto, Ont.

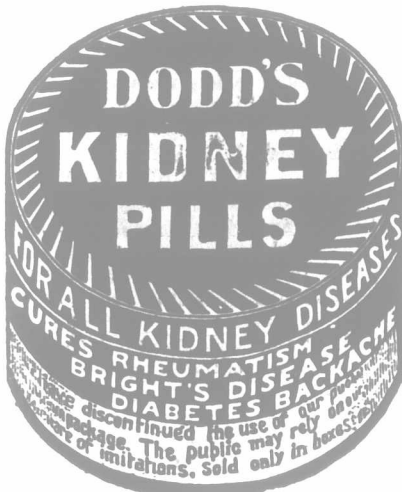
QUESTIONS AND ANSWERS. Miscellaneous.

SEEDING FOR LOW LAND PERMANENT PASTURE.

I have a farm I wish to seed down this spring and keep as a pasture farm; most of it is very low and wet in the spring. What would be the most suitable grass seed to sow for that purpose, and how much? Would it be any use to sow any red clover at all?
Huron Co. SUBSCRIBER.

Ans.—Red top, Kentucky blue grass and alsike clover are the most suitable for your purpose on the land you have; but as the red top and blue grass are slow in getting established, it is well to sow other grasses so that the land may be fully occupied from the start. Red clover would probably not amount to much, but it would not be amiss to sow a little, and would suggest the following mixture and quantity per acre:

- Red top 10 lbs.
- Kentucky blue grass 10 "
- Timothy 6 "
- Alsike 2 "
- Red clover 4 "



QUESTIONS AND ANSWERS. Miscellaneous.

AN INJURED RAM.

I was down at Toronto Exhibition last fall and bought four ewe lambs, two ewes and one shearing ram (imported), and paid \$85 for the ram. I also paid cash for the others. The two ewes and ram were at the exhibition, but the four lambs were at Mr. R.'s home, and the agreement was for him to take the two ewes and ram home, and ship all together; and I was to meet them at Owen Sound, which I did. When I opened the car, the two ewes and four lambs were all right, but the ram was hurt in the back. When I got home, I wrote to Mr. R. and told him the ram had got hurt, and he was no use to me; so he sent me a ram lamb (imported), but when he sent the lamb he did not state any price, and now he is charging \$50 for the lamb. I would like to know from you whether I am to be at the loss of the shearing ram, or what steps to take, as I thought they should be in his care to Owen Sound, where I was to meet them.
ONT.

Ans.—You ought to promptly write R. repudiating any liability, and in case of suit by him for the \$50, enter a defence thereto. We think you ought to be able to successfully resist such an action.

FARMING BY THE MOON.

1. Does the moon have anything to do with the weather; if so, to what extent and how?
2. Is there any foundation for the belief that if pigs are killed in the waning of the moon, the pork will shrink when cooking much greater than when the pigs are killed in the growing of the moon?
3. If peas are sown in the growing of the moon, do they ripen more irregularly than they will if sown during the waning of the moon?
4. Does it make any difference in the slipping of plants as to their flowering, whether done in the growing or the waning of the moon?
SUBSCRIBER.

Ans.—1. The moon is supposed to affect the weather to some extent; that is to say, a change in the moon is usually accompanied by unsettled weather. Just how the two are connected we would not undertake to say, as the subject is rather out of our line.

2, 3 and 4. We don't take much stock in any of this folk lore. We have heard these questions answered very emphatically in the affirmative, while others have been equally dogmatic in arguing the very converse. In our own practice we never farmed by the moon.

BOOK ON CATTLE FEEDING AND DISEASES—SILAGE QUERIES.

1. I saw in the issue of January 12th the question asked for a book on feeding cattle. Does this take up the work fully for both fattening cattle and also for dairying, and does it give cattle diseases, symptoms and treatment?

2. Can you tell me a good doctor book for cattle?

3. Which will you have the most out of for land and labor, ensilage corn, or roots and clover hay?

4. On what principle do you think best to build a silo, and whether outside or inside?
J. M.

Ans.—1. Feeds and Feeding, by Henry is a pretty complete and authoritative work on feeding all kinds of animals, but does not treat of diseases.

2. Veterinary Elements, by Hopkins, price \$1.50, postpaid, through this office, is a very good elementary veterinary work, relating to farm animals in general. A more exhaustive one is The Farmer's Veterinary Adviser, by Jos. Law, price \$3, through this office.

3. If your land and location are adapted to corn culture, you will obtain a considerably larger quantity of feed and derive more profit by growing corn, clover and roots, than by devoting all the land to the latter crops.

4. If gravel is within a few miles, and your buildings are permanently arranged, build a concrete silo, either round, octagonal or rectangular. The advantage of a rectangular structure is that it may be built with a partition, making two compartments, one for summer and one for winter use. Under other circumstances than the above, build a round stave silo on concrete floor foundation. This will keep out rats. If you have waste room in the barn, and can place the silo where it will be convenient to fill, it may be built inside; otherwise we would build outside.

LIQUOR AND TOBACCO HABITS.

A. McTAGGART, M.D., C.M.,
75 Yonge St., Toronto.

References as to Dr. McTaggart's professional standing and personal integrity permitted by:

- Sir W. R. Meredith, Chief Justice.
- Hon. G. W. Ross, Premier of Ontario.
- Rev. John Potts, D.D., Victoria College.

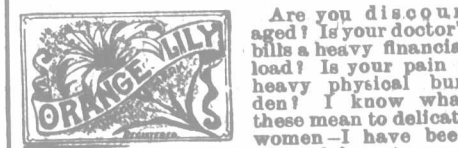
Dr. McTaggart's vegetable remedies for the liquor and tobacco habits are healthful, safe, inexpensive home treatments. No hypodermic injections, no publicity or loss of time from business, and a certainty of cure. Consultation or correspondence invited.

Registered Kent or Romney Marsh Sheep

Annual Sale last Friday in September. Unrivalled as producers of mutton of the highest quality, and a heavy fleece of demi-lustre wool. Beyond dispute one of the best grazing varieties of English sheep, noted for their extreme hardiness and freedom from all kinds of disease, including liver-fluke and foot-rot. Successfully acclimatized in Australia, New Zealand, Argentina, Falkland Islands, Tierra del Fuego, South Africa, etc. Full information and list of breeders can be obtained from

W. W. CHAPMAN,
Mowbray House, Norfolk Street, Strand,
London, England.

A WOMAN'S SYMPATHY



All you need to do is to write for a free box of the remedy, which has been placed in my hands to be given away. Perhaps this one box will cure you. It has done so for others. If so, I shall be happy, and you will be cured for 2c. (the cost of a postage stamp). Your letters held confidentially. Write to-day for my free treatment. **MRS. F. B. CURRAH,** Windsor, Ont.

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\$7,000 in prizes. ELEVENTH CANADIAN \$7,000 in prizes.

HORSE SHOW

TORONTO ARMOURIES, WED. THURS., FRI. and SAT. APRIL 26, 27, 28 and 29.

Entries close April 12th. Address Henry Wade, Secretary, Parliament Buildings Toronto. Boxes sold by auction Wednesday, April 19th. Reserved seat sale begins April 21. For information address the Manager, Stewart Houston, Massey Hall, Toronto. **REDUCED RATES ON ALL RAILWAYS.** Return tickets at single fare, good going April 26; at fare and a third, good going April 27, 28 and 29. All tickets good to return, all May 1st.



Winner of one of our Special Prizes at 7 mos. 23 days—810 lbs.



One that competed for our Special Prize, 6 mos.—Weight 600 lbs.

CARNEFAC STOCK FOOD

The cut tells the story. If you feed

Carnefac

you have calves just as good. If you do not, you have not. If your dealer has not

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write us for trial. Equally as good results when fed to Horses, Hogs and Cattle.

The Carnefac Stock Food Co.,
Winnipeg, Toronto.

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POULTRY AND EGGS

Continued 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 game-bred poultry and eggs for sale will find plenty of customers by using our advertising columns. No advertisement inserted for less than 20 cents.

A NUMBER of choice, healthy Barred Plymouth Rock cockerels "National Strain," bred from a few hens selected for their good laying qualities and large, well-colored eggs. W. C. Shearer, Bright, Ont.

BUFF Rock eggs, \$1 per 13, from choice winter-laying stock. Chas. C. Nixon, St. George, Ont.

BUFF Orpingtons—Eggs from selected stock. \$1.50 per dozen, \$7.50 per 100. F. S. Wetherall, Rushton Farm, Cookshire, Que.

BUFF ORPINGTONS only. Cook's strain. Strong fertile eggs from pen of finest utility stock. \$1 per 15. A. Cole, Grafton.

BARRED and Buff Rock, Brown Leghorn eggs, 50 cents setting. Cockerels prizewinners. Gill, Brownville.

BARRED Rocks—Try a setting of eggs from our imported pens (winners). O. S. Hunter, Durham, Ont.

BROWN Leghorns a specialty, headed by cockerels. Eggs, \$1 per 13. S. R. Bloom, Florence, Ont.

BUFF Orpington eggs, \$1 per 15, \$5 per 100. E. Brown, breeder and importer, Haysville, Ont.

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.

BARRED ROCKS (exclusively)—Eggs for hatching from pens mated with four imported cocks, out of first-prize male bird at Boston, 1903. Selected eggs, \$1.50 per setting of 13. Prices quoted on larger quantities. A. E. Sherrington, Walkerton, Ont.

BARRED Rocks exclusively. Eggs from prize stock. \$1 setting; fifty, \$2.50; per hundred, \$4. Miss Emily Spillbury, Colborne, Ont.

BUFF ORPINGTONS. At Central Canada Exhibition my Orpingtons won ten prizes; and again at Eastern Ontario Exhibition they won 9 prizes. Eggs, \$3.00 per 15. A. W. E. Hellyer, Ottawa, Ont.

EGGS for hatching—Barred Rocks, Buff Orpington, White and Silver Wyandottes, \$1 per 15. Black and White Orpingtons, \$5 per 15. Prizewinning birds in all these pens. F. W. Krouse, Guelph, Ont.

EGGS from prizewinning Barred Rocks, only \$1 for 15. Satisfaction guaranteed. One pen headed by second-prize cockerel at Boston, 1903. Others just as good. For further particulars write W. W. Doda, Alton, Ont.

EGGS from prizewinning strains. Barred, White and Buff Rocks, Silver-laced and White Wyandottes, Single-combed White and Brown Leghorns, Silver-spangled Hamburgs, \$1.50 per 13. Pekin and Rouen ducks, \$1.50 per 11. Thos. T. Sayles, Spruce Lane Poultry Yards, Paris, Ont.

EGGS from imported and prizewinning. Barred and White Rocks, White and Brown Leghorns, White Wyandottes, Buff Orpingtons, Black Minorcas. Write for prices. William Manley, Bridgen, Ont.

FARM RAISED, prizewinning Buff Orpingtons, W. Rocks, Rose-comb White Leghorns, Bronze turkeys. Eggs, \$2 per setting. Wm. A. Rife, Hespeler, Ont.

FOR SALE—Big White Holland gobbler, twice Winter Fair winner; pair splendid colored Muscovy, Winter Fair and Toronto winners. Eggs from winning pens Barred Rocks and Rose-combed Black Minorcas at \$1.50 per 15. Baker Bros., Guelph, Ont.

ORPINGTONS—Buff, Black, White. Why not have the very best obtainable? First cost may be a little more, but you get the stock and blood from the grandest winning strain in America, and from the largest Orpington breeder. Send for 40-page illustrated Orpington catalogue, also Mating List describing thirty-two breeding yards and prices of eggs. The blood from the largest winners at New York the past three years are in these yards. Box 74, Willow Brook Farm, Berlin, Conn.

EVEN Golden Wyandottes, \$5; trio White Rocks, \$4. A. J. George, 62 Clarence St., London.

PRIZEWINNING Buff Orpingtons. Eggs, \$2 per setting. O. In Blyth, Marden, Ont., member Canadian Orpington Club.

PURE National Strain Barred Rocks—Eggs from choice matings, \$1 per 13. Geo. McCormack, Rockton, Ont.

WRITE for prices on Barred Rock eggs from winning stock. Thos. D. Smith, Hickson, Ont.

WHITE WYANDOTTES, great winter layers. Strongly-fertilized eggs. \$1.50 per 15. Incubator less special. Chas. A. Goulding, Vinemount, Ont.

WHITE WYANDOTTES—Second Ontario cockerel heading first pen. Write for eggs. Anton Witzner, Berlin, Ont.

WHITE Wyandotte and Buff Orpington eggs \$1.50 per setting. Cash with order. C. W. Brown, "Pinegrove," Prescott, Ont.

WHITE WYANDOTTE eggs. Pen headed by grand Duston cockerel. W. D. Monkman, Rockhead, Ont.

WHITE Leghorns and White Wyandottes. Ontario's leading strains. Eggs, \$2 per 15. Satisfaction guaranteed. Write for circular. Ernest Charlton, Iderton, Ont.

WHITE Wyandotte eggs, from fancy and grand winter-laying strains, mated to imported Duston and Martin cockerels; large size and perfect shape; \$1.50 per 15. Incubator eggs special. James Smith, Trout Creek Farm, Millgrove.

Eggs for Hatching
From the very best of stock and careful breeding. Barred P. Rocks. White. Silver-laced and Buff Wyandottes. Buff Orpingtons. Eggs, \$1 per 15. Mannoth Bronze turkey eggs, \$1.50 per 15. Set of 12 eggs. The above stock in excellent condition and will produce a good percentage of show birds.
D. A. GRABAM, Theford, Ont.

TRADE TOPICS.

MILNE MFG. CO.—Of special interest to New Ontario readers should be the advertisement of the Milne Mfg. Co., 886 8th St., Monmouth, Ill., the largest manufacturers of stump pullers in the world. Their combination stump puller, which may be stump-anchored or self-anchoring, is designed to clear a two-acre circle of land at one setting. It will handle stumps, trees, rocks, hedges and all sorts of obstructions. The machine gives an immense leverage, and is built to stand any strain. A strong wire rope with patent coupler and chain reaches the stump. Get their free illustrated catalogue, and study the thing up. Such a machine should be an immense boon in a new country.

SEVEN THOUSAND DOLLARS.

A Fine List of Premiums for the Canadian Horse Show.

The Canadian Horse Show, which is to be held in Toronto this year during Easter week, on April 26th, 27th, 28th and 29th, will show a distinct advance over all its predecessors. The premium list now amounts to the handsome sum of seven thousand dollars. The Horse Show will possess an additional interest this year by reason of the fact that the new Governor-General Lord Grey and the Countess of Grey will make it the occasion of their first visit to Toronto, and will open the Horse Show.

The entries close on Wednesday, April 12th, and should be addressed to the Secretary, Henry Wade, Parliament Buildings, Toronto, from whom entry forms and prize lists can be obtained.

There will be reduced railway rates on all lines for points from St. Thomas on the West, Southampton, Owen Sound and Gravenhurst on the north and Kingston on the East. Return tickets will be sold at a single fare, good going Wednesday, April 26th, and a fare and a third going April 27th, 28th and 29th, all tickets good to return till Monday, May 1st. Reserved-seat tickets can be obtained on application to the Manager, Mr. Stewart Houston, Massey Hall, Toronto.

GOSSIP.

Mr. Geo. H. Johnston, Balsam, Ont., writes: "We had over one hundred applications for the Catalogue of our Short-horn sale as the result of our advertisement in the 'Farmer's Advocate.' On account of the bad roads, only a few of these men could get here, but they bought a good number of the best animals."

Mr. L. W. Cochran, Crawfordville, Indiana, writes that he has been very busy for the last three weeks, having sold and shipped from one to six horses a day, but still has quite a good many fine young Percherons, Shires and Hackneys left. "In the last three weeks I have sold and shipped horses to Canada, Maryland, Virginia, Tenn. and Kansas, besides many to adjoining and near-by States. A customer never goes away without buying, and always writes back that he and his neighbors are pleased with his horse, and everything is satisfactory. With the quality and kind of horses I have for sale and the guarantee I give, no one could help but be pleased and satisfied." See his advertisement in this paper.

Mr. J. G. Truman, manager of Trumans' Stud Farm, Rushnell, Ill., writes under date March 29th, 1905: "Enclosed please find copy of letter from Secretary Burgess, which kindly publish in your next issue and much oblige. I will here state that the Association offered only eight gold medals, and we won no less than six."

Wenona, Ill., March 28th, 1905. Trumans' Pioneer Stud Farm, Bushnell, Ill.:

Dear Sirs,—I am sending you by express to-day six (6) gold medals that were offered by this Association and won by your stock at the Louisiana Purchase Exposition, 1904.

I wish to congratulate you on the grand showing made by your firm and on winning so large a majority of the medals offered by this Association.

With best wishes and kindest regards, I remain, Yours very truly,
(Signed) Chas. Burgess,
Secretary American Shire Horse Ass'n.

The King of Terrors Is Consumption.

And Consumption is caused by neglecting to cure the dangerous Coughs and Colds.

The balsamic odor of the newly cut pine heals and invigorates the lungs, and even consumptives improve and revive amid the perfume of the pines. This fact has long been known to physicians, but the essential healing principle of the pine has never before been separated and refined as it is in

DR. WOOD'S NORWAY PINE SYRUP.

It combines the life-giving lung-healing virtue of the Norway Pine with other absorbent, expectorant and soothing Herbs and Balsams.

It cures Coughs, Colds, Hoarseness, Bronchitis, and all affections of the bronchial tubes and air passages. Mrs. M. B. Lisle, Eagle Head, N.S., writes:—I have used Dr. Wood's Norway Pine Syrup for coughs and think it is a finer remedy, the best we have ever used. A number of people here have great faith in it as it cures every time.

Price 25 cents per bottle.

The Daniels INCUBATORS



Are the latest and most modern invention for artificial hatching of turkeys, chickens and ducks. Do not forget we guarantee the Daniels incubators to be satisfactory to the purchaser. We manufacture Chas. A. Cyphers Model Incubators and Brooders.

Made in Canada. We carry a full line of poultry supplies. Our new catalogue is out, and is free for the asking.

C. J. DANIELS, 196 to 200, TORONTO

MY BARRED ROCKS and BUFF ORPINGTONS are famous for laying, size, and coloring. Healthy, vigorous, scientifically fed and mated. Eggs, \$2. During April express paid. Carefully packed.
REV. A. E. SANDERSON, Chesterville, Ont.

Barred Rocks—We offer eggs for hatching from pens good in size, shape, color and laying qualities at \$1 per 13, \$2.50 per 33, \$5 per 100. 1905 egg circular free.
H. GEE & SONS, Rainham Centre, Ont.



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. No advertisement inserted for less than 20 cents.

PENNSYLVANIA Dairy to lease—First-class opening for good dairyman. The owner of 300-acre dairy farm, close to large manufacturing city, wishes to retire, and will lease the whole dairy, in running order, to the right man. Location in Pennsylvania, near Pittsburgh. A successful dairyman with good character and business ability preferred. Address, "Penn. Dairy," care Farmer's Advocate, London, Ont.

BABY for adoption. Write J. J. Kelo, Toronto.

FIRST-CLASS farm for sale at a bargain—100 acres clay loam by deed, 110 acres by measure; well-fenced and tile-drained; 800 rods of wire fence, new, over 10,000 tile; good frame house, large frame barn and other buildings, all new. Five acres of timber, twelve acres pasture, 53 under cultivation, all well improved. Will sell cheap if sold at once. Lot 22, Con. 5, Chatham Tp. Apply on premises, or to Adna Pherrill, Kent Bridge, Ont.

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

Wanted—A purchaser Breeding Bull. "Imp. Pride" (7883) = 3932 =. Sire, the Pride of Morning bull. Pride of the Realm, a Royal Northern winner. Dam, a Buchan Lassie. He is a good bull at a reasonable price. Particulars from W. J. BIGGINS, Elmhurst Farm, Clinton, Ont.

FOR SALE: The imported **CLYDESALE STALLION** Uam Var [2129] (9457).

Apply to **DAVIS & GRAHAM, Schomberg, Ont.**

ADVERTISE IN THE ADVOCATE.

TRADE TOPICS.

THE COOPER SHEEP DIP now of over 60 years' world-wide standing is still adding laurels to its well-deserved reputation. Recently after severe official tests it has been declared the National Dip of Spain by Royal Decree, and by the Russian Government as the exclusive dip of that country. The British Government has used and endorsed it for nearly half a century. Add to this its use upon more than half the sheep in the world every year, and its merits are sufficiently demonstrated to warrant the confidence of its makers in soliciting the custom of sheepmen who are not yet its patrons.

SPECIAL TRAINING.—Special preparation for doing some things, and doing them well, should be included in the training of every young man and woman.

No preparatory work is better designed or more effective in enabling young people to make a successful start in life than that given from term to term in that peer of training schools, The Central Business College, of Toronto. It is a well equipped, well organized, thoroughly manned and efficient school, and gives the uplift to more than twelve hundred young people every year by providing just such courses as every one should pursue.

The spring term began on April 3rd, and students may now enter any day, and continue work to end of any course selected.

There are no vacations. A very handsome catalogue is sent by the Principal, Mr. W. H. Shaw, on receipt of a postal request.

FOODS AND FOOD PRODUCTS.—Prof. Gray's lecture before the National History Society of Montreal—Immense value of the electrical purification of flour—Prof. M. A. Gray, chemist, lectured last night on "Foods and Food Products," in the National History Society rooms.

The lecture was most exhaustive and instructive, dealing with the growth of wheat, its constituents and the electrical treatment of flour. Mr. Gray remarked that but little could be said concerning the percentage of nourishment contained in the different grades of our North-western hard wheat, as it varies from year to year. Speaking of the chemical experiment, Mr. Gray pointed out what had been done in this line in regard to wheat during the last ten or twelve years, in the different experimental stations of the United States. It was but very recently, however, that laboratories had been established in connection with flour mills, but they have already demonstrated their utility. As to the purification of flour by electricity, the speaker remarked that it is about two years since this method was adopted, and the development has been wonderful. A beautiful silvery whiteness is produced by subjecting flour to air which has been passed through a flaming electrical discharge. The flour has also, as a consequence, better keeping qualities and commands a better price. The Ogilvie Flour Mills Company, he said, was the only firm in Canada, and one of the first in America, to make use of this purifying and sterilizing process.

QUESTIONS AND ANSWERS.

Miscellaneous.

MISREPRESENTATION OF HORSE.

A has an auction sale, and advertised a horse to be ten years old. B bought the horse and gave his note. B finds out that the horse is eighteen years old.

1. Can A collect the note?
2. Is there any law against such doings. B has not said anything to A as yet, and is willing to pay what the horse is worth. What would you advise me, B, to do?

A YOUNG FARMER.

Ans.—You should settle, if possible; but if A will not agree to a reasonable compromise, then make an actual cash tender to him of the amount he is fairly entitled to receive. In the event of his not accepting same, and proceeding to suit on the note, you should defend the action, and also enter a counter-claim for damages for the misrepresentation. We think you are liable on the note, but that B also has probably incurred liability by reason of his misleading advertisement.

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

For Spring Debility

YOU SHOULD RESTORE RICHNESS TO THE BLOOD BY USING

Dr. Chase's Nerve Food

Habit is one of the strongest forces of nature. It is like a rut into which it is easy to run, but which too often leads to misfortune and calamity.

The habit of dosing with salts and sarsaparillas in the spring is doing much to undermine the health of the present generation.

In the spring the blood is thin, the system run down and the body weak and enervated. What you need is a tonic and restorative, such as Dr. Chase's Nerve Food.

If you have been a slave to the habit of dosing the system with salts or similar weakening purgatives you will appreciate Dr. Chase's Nerve Food, which acts on the principle of forming new blood, building up the system and creating new nerve force.

It is something to strengthen rather than weaken that you must need in the spring, and Dr. Chase's Nerve Food supplies this need as no other medicine was ever known to do.

By its use the action of the heart becomes strong and regular, the stomach is supplied with the nervous energy which is necessary to healthful digestion, and every organ of the body is enabled to carry out the duty imposed on it by nature.

Dr. Chase's Nerve Food, 50 cents a box, at all dealers, or Edmanson, Bates & Co., Toronto. Portrait and signature of Dr. A. W. Chase, the famous recipe-book author, are on every box.

A young lady from Washington was visiting for the first time a country farm. Seeing a cow looking very savage she said to an old farmer: "Oh, how savage that cow looks!"

"Yes, Miss, it's the red parasol you are carrying," said the farmer.

"Well," she said, "I knew it was a trifle out of fashion, but I never thought a country cow would notice it."

"And you went up the Rhine, I suppose?" said Mrs. Malaprop. "Oh, yes! It was beautiful!" "And did you see any Rhineoceroses?"

THE POSTMASTER TELLS HIS SECRET

His Health Mainly Due to the Use of Dodd's Kidney Pills.

Postmaster Lee Looks Ten Years Younger Than His Seventy-six Years, and He Gives the Credit to the Great Canadian Kidney Remedy.

Tabucintac, Cumberland Co., N. B., April 3rd.—(Special).—Horatio J. Lee, postmaster here, is now in his seventy-sixth year, but so bright and healthy does he look and so energetic is he in his movements that he would easily pass for ten years younger.

"How do I keep young looking," the postmaster says. "Well, I attribute it largely to my good health, and my health is mainly due to the use of Dodd's Kidney Pills.

"I first learned the value of this Kidney Remedy some years ago. I was then suffering from Kidney Disease. My feet and legs swelled, and I had to rise eight or ten times in the night because of urinary troubles. Six boxes of Dodd's Kidney Pills restored my health at that time and I have used them at intervals since.

"To anyone afflicted with Kidney Trouble, I say 'Dodd's Kidney Pills are all right.' Try them and you will be sure to find a benefit."

GOSSIP.

The many Canadian Shorthorn breeders, whose privilege it was to know and enjoy the friendship of Mr. Charles L. Gerlaugh, of Harshman, Ohio, will deeply regret to learn of his death, which occurred on March 12th at the age of 50 years. He was a successful and enterprising importer and an excellent judge of Shorthorns and a man of estimable character.

Volume 60 of the American Shorthorn Herdbook has been received at this office, thanks to the courtesy of the editor, Mr. John W. Groves, Chicago, Ill. The volume contains 1,195 pages, the pedigrees of bulls numbering from 219,825 to 225,613, and of probably quite as many females, and is creditably compiled and printed.

Sheep breeders should note the advertisement in this paper of the annual sale to take place the last Friday in September of pure-bred Kent or Romney Marsh sheep in England. This breed is becoming increasingly popular in Great Britain, being a strong, robust breed, producing a dense fleece of fine quality and heavy weight of first-class mutton. Mr. W. W. Chapman, Secretary of the flock Association, whose address appears in the advertisement, will furnish full particulars.

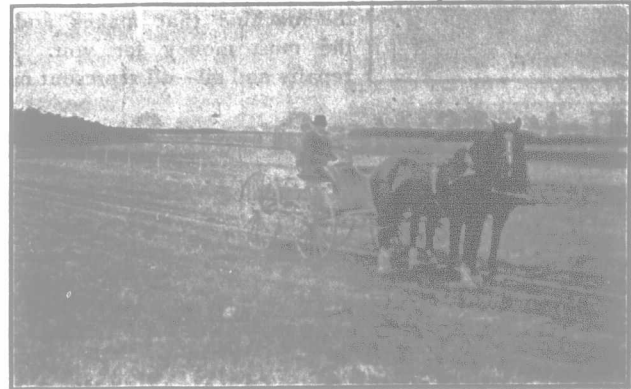
The sporting editor says the situation of Russia in the far east and the Czar's reported determination to continue the war reminds him of the Australian oarsmen who were struggling along in a race far behind the rival pair. Their coach was running along the bank of the river shouting "Go on, go on, you're not beat yet." Two blokes on the riverside, seeing the hopelessness of it, yelled out, "Don't you mind him. You are beat. Chuck it, chuck it."

Capt. T. E. Robson, Ilderton, reports the sale to Mr. Harry Smith, of Exeter, Ont., of the rich roan imported two-year-old bull, Rosy Morning (87139) =50080=, bred by Mr. Wm. Duthie, of Collynie, Aberdeenshire, imported by Mr. W. D. Flatt, sired by Merry Morning (81702), whose sire was Pride of Morning, and his dam Missie 135th, by Wm. of Orange. The dam of Rosy Morning is the Uppermill Roan Lady cow, Rosetta 4th. He is a bull of ideal type and character, as one would expect from his splendid breeding, with a grand coat of hair, and Harry, who knows a good one when he sees it, was not wholly happy till he had the bull in the Springhurst herd, where he will undoubtedly exert an excellent influence.

Messrs. C. J. Gilroy & Son, Glen Buehl, near Brockville, Ont., write: "Our herd of Holsteins at present numbers about 40 head, with the richly-bred imported bull, Sir Alta Posch Beets, as chief sire. This bull was sired by the \$1,500 son of Alta Posch, the wonderful A. R. O. heifer, 27 lbs. butter and 586 lbs. milk in 7 days, the world's record for a two-year-old. His dam is a daughter of the great sire, Paul Beets De Kol, who has 42 officially-tested daughters. Paul Beets De Kol is half-brother to the champion butter cow of the world, Aaggie Cornucopia Pauline, A. R. O., 34.31 lbs. butter in 7 days, and she was recently sold at \$6,000. Sir Alta Posch Beets is, therefore, one of the best bred young bulls coming into active service at the present day. We also imported at the same time the richly bred cow, De Vries Netherland Colanthe, sired by the great show bull, Soldine 2nd's Netherland. She also is closely related to Clothilde 2nd, record of 23,602½ lbs. milk in 1 year. She herself has given 68½ lbs. milk in 1 day. She produced us a fine bull calf on November 2nd, sired by Jr. De Kol, a bull which cost his owner \$500, a grandson of the great Sadie Vale Concordia, the first officially-tested cow to produce over 30 lbs. butter in 7 days. This youngster is for sale, as is also a fine one-month-old son of the grand old dairy-test champion cow, Carmen Sylva, record of over 17,500 lbs milk in 1 year, 79 lbs. in 1 day, nearly 20 lbs. butter in 7 days, official test, three months after freshening, and standing a month's show-ring trip. The change of advertisement shows what else is offered from the Maple Glen Herd."

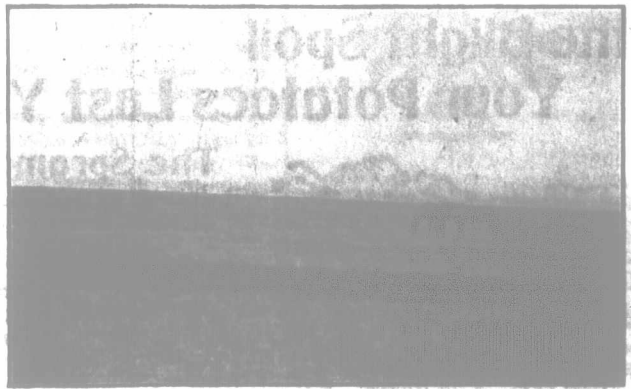
In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE.

Last Mountain Valley



In Township 21, Range 31, W. 2.

THE FINEST WHEAT LAND IN NORTH-EAST ASSINIBOIA. Average crop for 5 years, 25 bush. per acre.



Opening Out New Farm.

STEAMBOAT SERVICE on the LAKE

S.S. Queen City and S.S. Silken Dale will make regular trips with freight and passengers. : : : :


Railway in Operation this Summer.



In Township 26, Range 23, W. 2.

WRITE FOR FREE MAPS, BOOKS, ETC.

Wm. Pearson & Co.,
Winnipeg.



A Sure Money Maker On the Farm

When you buy a Cream Separator you cheat yourself if you don't get the machine that makes and saves the most money for you. Cream, repairs and oil—all represent money.

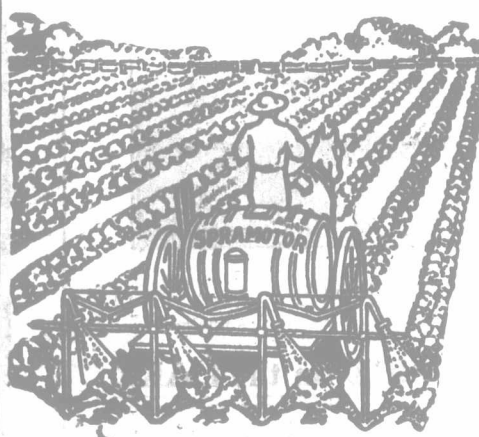
The United States Cream Separator

holds the world's record for clean skimming—saves cream every day that other separators lose.
 Substantial and simple—extremely durable. No joints to work loose, no ratchet pin to break off, no exposed gears to be injured—no repairs.
 Perfect adjustment of working parts—no oil wasted.
 You can't make your cows pay you as they should without a U. S. Cream Separator. Write for free illustrated catalogue to-day.

The Vermont Farm Machine Company BELLOWS FALLS VERMONT

Warehouses at Chicago, Minneapolis, Omaha, La Crosse, Wis., Sioux City, Ia., Kansas City, Mo., Salt Lake City, Utah, San Francisco, Cal., Portland, Ore., Buffalo, N. Y., Portland, Me., Montreal and Sherbrooke, Que., Hamilton, Ont.
 Address all letters to Bellows Falls, Vt.

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. 107-109 Erie St. BUFFALO, N.Y.

Agents Wanted

ADVERTISE IN THE ADVOCATE.

TRADE TOPICS.

AURORA WELL WORKS.—To bore a well for water, oil, coal or mineral prospecting, use the Lightning well machinery, manufactured by the Aurora Well Works, Aurora, Ill. Speed and adaptability are strong points of their machines. With them, you can put down a well of any diameter and depth at a minimum of cost. Write them for descriptive catalogue, mentioning the "Farmer's Advocate."

NEW ROOFING FACTORY.—From this time on, roofings, hitherto manufactured in the United States, will be a Canadian product. F. W. Bird & Son, one of the oldest roofing and building-paper manufacturers in the United States, who have been established at East Walpole, Mass., since 1817, have recently acquired a considerable tract of land near Hamilton, Ontario, and have already begun the erection of a roofing and waterproof-paper mill at that place. This adds to Canadian manufacturing institutions an old and reliable concern. Canadian people will still continue to buy the Bird & Son roofings, which are already so largely used here, but they will be buying goods of home manufacture. Bird & Son publish an instructive book called "Building Economy," devoted to their roofings, which may be had by writing them at their new Canadian factory at Hamilton, Ontario.

CANADIAN BRITISH COLUMBIA LAND CO.—The eyes of the world are more than ever turned towards the great Canadian West. The homeseekers of every land are longing for a home in the Last Great West. To those of limited means, the high-priced lands in the United States or in the older provinces of Canada, make the securing of a home a difficult if not an impossible undertaking. In any event, it means years of strenuous effort lost, and not unlikely middle age finds the struggling farmer with a heavily-mortgaged property. It is to these that the fertile plains of the West offer a splendid opportunity for home-building. The Canadian British Land Co. offer in their advertisement in this issue large tracts of land in the famous wheat section of Eastern Assiniboia. No part of the West offers so many advantages as the rich and fertile plains north of Moose Mountain, in which these lands are situated. Beautiful open prairie, abundance of pure water, proximity to fuel and building timber, unsurpassed fertility, and easy terms, are some of the advantages offered. If you want one of the safest and best investments on the continent, or if you desire a home in one of the most favored districts of the West, see their advertisement, and write the Canadian British Land Company.

Why Women Are Weak

To any Womanly Sufferer, I offer a Full Dollar's Worth of my Remedy Free.

Only one woman in 98 has perfect health. And almost all womanly sickness can be traced to a common cause—the nerves are weak. Not the nerves you ordinarily think about—not the nerves that govern your movements and your thoughts.

But the nerves that, unguided and unknown, night and day, keep the heart in motion—control the digestive apparatus—regulate your liver—operate the kidneys—the nerves on which all the vital functions depend.

These are the nerves that worry wears out and work breaks down.

It does no good to treat the ailing organ—the irregular heart—the disordered liver—the rebellious stomach—the deranged kidneys. They are not to blame. But go back to the nerves that control them. There you will find the seat of the trouble.

My remedy—Dr. Shoop's Restorative—is the result of a quarter century of endeavor along this very line. It does not dose the organ or deaden the pain—but it does go at once to the nerve—the inside nerve—the power nerve—and builds it up, and strengthens it and makes it well—and that is the end of womanly weakness.

In more than a million homes my remedy is known. It has cured womanly weakness not once, but repeatedly—over and over again. Yet you may not have heard of it—or hearing, may have delayed or doubted. So I make this offer to you, a stranger, that every possible excuse for doubt may be removed. Send me no money—make me no promise—take no risk. Simply write and ask. If you have not tried my remedy, I will send you an order on your druggist for a full dollar bottle—not a sample, but the regular standard bottle he keeps constantly on his shelves. The druggist will require no conditions. He will accept my order as cheerfully as though your dollar laid before him. He will send the bill to me.

Will you accept this opportunity to learn at my expense absolutely, how to be rid forever of all forms of womanly weakness—to be rid not only of the trouble, but of the very cause which produced it? Write to-day.

For a free order for a full dollar bottle you must address Dr. Shoop, Box 52, Racine, Wis. State which book you want.

Book 1 on Dyspepsia.
 Book 2 on the Heart.
 Book 3 on the Kidneys.
 Book 4 for Women.
 Book 5 for Men.
 Book 6 on Rheumatism.

In connection with Dr. Shoop's Restorative it is sometimes advisable to give local treatment. If so, get Dr. Shoop's Night Cure. Both remedies are on sale at all druggists. om

Dr. Shoop's Restorative

Indigestion cured to stay cured by using Satis Capsules. 50c. box by mail. Booklet free. SATIS REMEDY CO., P. O. box 156, Galt, Ont.

Advertise in the Advocate

Steele, Briggs' Seeds

are the Best that grow.

YOU can't afford to waste weeks and months of time and energy in growing so called cheap or Bargain Seeds. What you want is **FULL SIZED PACKAGES** at popular prices. Seeds that are **TESTED AND TRIED.** No disappointment with them. Your money's worth every time. If you want to make a success of your year's work, insist on getting

STEELE, BRIGGS' SEEDS

not merely because we say so, but because they are known from one end of Canada to the other to be absolutely reliable. You get what you think you are getting every time. Never any guess-work as to results. We make sure in advance that the seeds are right, and guarantee values to be always the best.

If your dealer can't supply you, send to us for Catalogue, and order direct by mail.

The STEELE, BRIGGS' SEED CO., Limited

TORONTO, Ont., HAMILTON, Ont., and WINNIPEG, Man.



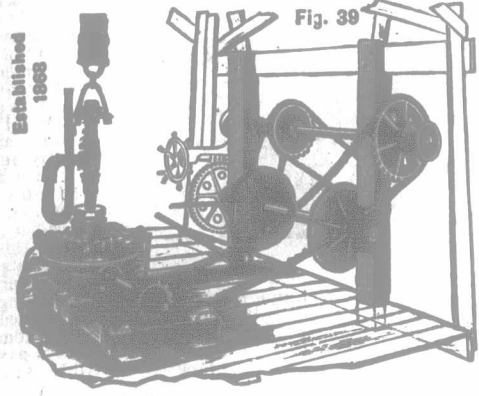
In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE.



THE 20th CENTURY TREATMENT, The source of all Power, The Fountain of Youth,

discovered in the Laboratories of Dr. Jules Kohr. The result of 50 years of scientific research. Lost manhood brought back after years of weakness and despair. Nature's Secret restored by combining three of the rarest chemical reagents in the world. This is no experiment. It is proved by its use in the Hospitals of Europe. Tens of thousands of weak and hopeless cases cured by 30 days treatment. This is a fact! Prove it yourself by a test. A 5 days treatment with full particulars sent absolutely free: All packages are carefully sealed in a plain wrapper with no mark. A full 30 days treatment (180 doses) with guaranteed cure or refund of money, for \$3.00.

Send for sworn Canadian testimonials received within the last twelve months. (7)
Dr. KOHR MEDICINE CO., P.O. Drawer A 2341, MONTREAL.



LIGHTNING WELL MACHINERY,

Rotary, Coring or Rock Drilling,
Any Diameter, Any Depth, for
Water, Oil, Coal or Mineral
Prospecting,
Descriptive Catalog on request.
The American Well Works,
Aurora, Illinois, U. S. A.
CHICAGO, ILL. DALLAS, TEX.

BIBBY'S "CREAM EQUIVALENT"



THOMAS: "That calf seems to be doing all right, Mary?"
MARY: "Yes I have never had any trouble raising calves since using 'Cream Equivalent.'"
It is used to substitute cow's milk where milk is scarce; and to enrich skim or separated milk when these products are available, or, if necessary, for raising calves without any milk whatever after a few weeks old. A farmer can, by its means, rear good calves and pigs, and sell his milk or the butter and cheese fats. Calves take to it readily and thrive on it. No other production does the work with the same effectiveness. If you are short of milk or have only separated milk for your calves make a trial of "Cream Equivalent."
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.

QUESTIONS AND ANSWERS. Miscellaneous.

A SICK SHEEP.

A ewe lamb rising one year old was noticed dumping around; was put by herself, and she neither ate nor drank, except a trifle of milk forced down her two or three times near the last; tried her with everything I could think of to tempt her to eat, but without avail. I put some linseed oil down her, and know it worked on her. She did not appear to be in pain, but she died on the eleventh day after I shut her up. What was the matter, and what should I have done to save her? L. C. P.

Ans.—Only a post-mortem could reveal what was the matter, and then it might be only conjecture. It is generally safe to give a purgative, and if that does not cure, there is little use in dosing a sheep—better call in a butcher, and make the best bargain possible with him.

TIRED FEELING IN PIGS.

1. I had sow with eight young pigs which did exceedingly well till they were three weeks old. I fed the sow pulped mangels and barley chop mixed. The pigs seemed to get sort of worn out, got limp as an old hat, and I would find one dead every three or four days, till I lost four out of the eight. At first I blamed the sow for lying on them, but they would be sick for some two or three days; seemed a little physicked. Their pen is a good warm one—cement floor, but wooden bed for pigs, with plenty of good clean straw. These pigs apparently had no disease, but just seemed to go into decline. The remaining four are doing well, and apparently are going to survive. Could you kindly advise me as to the cause of trouble, and cure.

2. Our house is infested with great quantities of flies, there seems to be hundreds of them. When we let down windows to air the house upstairs, we find hundreds of them swarming like so many bees on a nice springlike day. We have not been troubled before with them until this season. Our house is brick, heated by hot-air furnace. Kindly advise cause and remedy. C. J. S.

Ans.—1. The trouble would seem to have been caused by too heavy feeding of the sow and too little exercise for both sow and pigs. When young pigs get very fat and are confined to close quarters, the action of the heart and lungs gets clogged and lassitude follows, developing into disease, and medicine is so difficult to administer in the case of pigs that little can be done for them further than to change the feed and induce exercise.
2. We cannot suggest anything but the use of insect powder and fly paper.

GOSSIP.

Mr. W. B. Roberts, Sparta, Ont., breeder of Shorthorns and who supplies seed corn, writes: "I heartily thank the readers of the 'Farmer's Advocate' who have ordered seed corn from me, hoping they will have success with it, and that I will be able to supply them again next year. I secured at the Provincial live-stock sale at Guelph the young bull, Stately Hero =55321=. He took second prize there, and was sired by Lord Chesterfield, junior champion-ship at Toronto, 1902, and third at St. Louis, 1904. The bull calf that I offer in my advertisement is growing into a fine animal, and whoever gets him will have a good one."

T. E. Bissell, of Elora, Ont., advises us that his firm make large numbers of three-horse Equalizers complete, for use on this special construction of disk harrow. "We understand the enquiries you mention having received lately, will refer nearly altogether to three-horse eveners for miscellaneous use, and, if so, we are not in a position to cater to this trade. We make our three-horse attachment for use on our disk harrow only." The International Harvester Co., and other implement establishments, we presume, carry a stock of three-horse eveners or equalizers for various uses. "We have in stock several of Deering style of three-horse equalizers, which we quote at \$2.50 each net, per complete set. This does not include a neckyoke. We enclose cut of this equalizer, and will be pleased to answer the inquiries of any of your customers for these."

KIDNEY DISEASE.

Diseases of the Kidneys are numerous, from the fact that these organs act as filters to the blood, and form one of the great channels for the removal of impurities from the system, which, if allowed to remain, give rise to the various kidney affections, such as Dropsy, Diabetes, and Bright's Disease.

The following are some of the symptoms of kidney disease:—Backache, sideache, swelling of the feet and ankles, frequent thirst, puffiness under the eyes, floating specks before the eyes, and all disorders of the urinary system, such as frequent, thick, cloudy, scanty, or highly colored urine.

DOAN'S KIDNEY PILLS are exactly what the name suggests. They are not a cure-all, but are a specific for kidney troubles only. Price 50 cents per box, or 8 for \$1.25. All dealers, or THE DOAN KIDNEY PILL CO., Toronto, Ont.

WINDMILLS



A Canadian Airmotor is as Good as a Hired Man

Grinds, and Pumps Water. RUNS (Straw Cutter, Pulper, Grindstone, etc.) MUSCLES, TIME, MONEY.
Ontario Wind Engine & Pump Co., Limited, Toronto.

COOPER SHEEP DIP

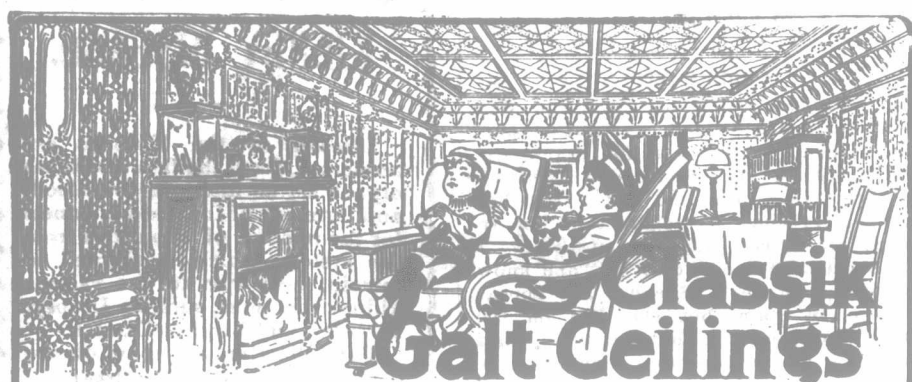
Standard of the World for 60 years. Used on 25 millions annually. One dipping kills ticks, lice and flies. No smell. Keeps flock clean a long time. Increases growth of wool. Dipping Tanks at cost. Send for Pamphlet to Chicago. If local druggist cannot supply send \$1.75 for 25 (100 gal.) dip to EVANS & SONS, Ltd., Montreal and Toronto. WM. COOPER & NEPHEWS, Chicago, Ill. 6

A sixteen-months-old Shorthorn bull of excellent milking strain is offered by Geo. Lewis, Ballymote P. O., Ont. See his advertisement.

W. G. Sanders & Son, St. Thomas, Ont., ordering a change of advertisement, write: "We have sold our imported bull, Scottish Rex =36107=, to Mr. Arch. McGillawee, of Hampstead. Our cattle are wintering nicely, and the new arrivals are very promising. Our offering is a few good young cows and heifers of the Fashion and Belle Forest families. These will be priced right, considering quality and breeding."

Importers of Southdowns should note the advertisement of Stride & Son, Chichester, Sussex, Eng., whose annual auction business amounts to upwards of 80,000 pure-bred Southdown sheep. On Wednesday, Aug. 9th, 1905, they will sell by auction at Chichester about 400 rams and 60,000 ewes, including consignments from nearly all the leading flocks in the country. If you cannot attend, write Stride & Son, placing your orders through them on commission, and mentioning the "Farmer's Advocate."

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



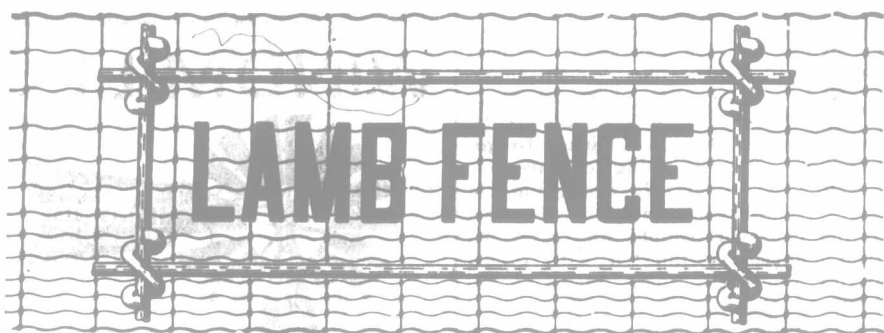
give a genuine air of refinement and luxuriousness to any room.

They are made in all the Oriental, Classik, Colonial and modern styles, and when used in conjunction with Classik Cornices and Wall Designs, they give a charming effect—thoroughly artistic and strictly in harmony from top to bottom.

This 20th Century finish provides an artistic embellishment, absolutely fireproof, as well as strictly sanitary.

The Classik Kids will tell you a lot more in this connection if you ask them.

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



What is the tensile strength of that wire you are getting? Do you know whether it is high-carbon or some cheaper grade of steel? No. 9 carbon wire has a tensile strength of over 2,400 lbs. LAMB FENCE is made of high-carbon wire. Write us for sample of wire (no charge) and compare this sample with the other wire.

The H. R. LAMB FENCE CO., Limited, 687 Bathurst St., LONDON, ONT.

Imported Clyde, Shire and Hackney STALLIONS.



A few left on hand for sale that I wish to close out at from \$800 to \$1,000 each. These stallions are all bred from the best sires of Scotland and England. Such noted sires as:

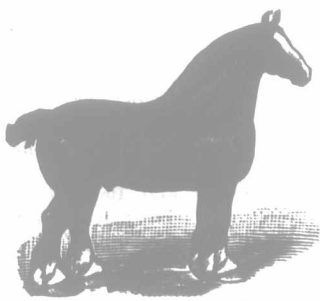
King of Fashion (12195), by Baron's Pride (9122).
Prince of Kyle (7155).
Harbling Harold (15649), by Harold (4629).
Gunthorpe Advance (13136), by Bar None (2388).

Write—

J. B. Hogate, Sarnia, Ont., or Lennoxville, Que.

Smith & Richardson's CLYDESDALES

COLUMBUS, - ONTARIO.



We are now offering for sale the finest lot we ever imported at reasonable prices. Amongst them, Baron Gartley, winner of 1st prize and sweepstakes.

Stations—Oshawa and Brooklin,
G. T. R. Myrtle, O. P. R.

Long-distance Telephone at Residence.

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.

QUESTIONS AND ANSWERS. Miscellaneous.

WASHY DRIVER.

R. H. L. asks treatment for a washy driver.

Ans.—Purge him with a ball consisting of six drams aloes and two of ginger; then give daily in powder, nuxvomica, gentian and ginger, one dram each, to tone up the digestive system. Exercise care in feeding and watering. When in the stable, feed clean hay and easily-digested grain, such as ground oats. Do not water just before taking on the road or after feeding.

CEMENT FLOOR FOR SHEEP BARN.

I want to put a concrete floor in our sheep barn, and would like to know whether there are any in use in Canada, and what the objections to them are, if any, where there is lots of bedding used. I would like the opinion of some of the sheep breeders through your paper. I take eight farm papers, but like the "Farmer's Advocate" best of them all.

F. B. G.

Ans.—The only objection is the expense, which, with any ordinary site, would be quite an unnecessary one. In a damp location, such flooring might be advisable; but a well-raised clay floor answers admirably.

PROBABLY MILK FEVER.

I lost a valuable cow recently. She calved in the afternoon; cleaned and seemed to be all right. I went out in the morning to milk her, and got about half a pail of milk, besides what the calf took. Shortly after, she seemed to become very weak. I called in a vet., and he treated her for milk fever. She gradually got worse, and at three o'clock died. On opening her, we found where she had eaten the cleanings, and it had all lodged in the stomach. Do you think she could have had milk fever, having a soft bag getting that much milk away from her? The first thing the veterinary surgeon gave her was a bottle of salts. Do you think if he had given a quicker laxative there would have been any chance to have saved her?

DAIRYMAN.

Ans.—It was probably a case of milk fever, caused by milking out too soon after calving. The proper plan is to only partially milk for the first three days. It is a mistake, and generally a fatal mistake, to dose for milk fever. Fill each quarter of the udder full of oxygen, or if the necessary outfit for that is not available, pump the udder full of air with a bicycle pump, or a rubber-bulb syringe, and no other treatment will be necessary. It is astonishing that so many have failed to profit by the publication of this treatment in the last two years, and are allowing valuable cows to die which might be saved at so little expense.

MISCELLANEOUS QUESTIONS.

1. Could I raise pigs from weaning time to say six or eight months successful without skim milk by raising plenty of rape and roots, and using bran and shorts mixed with oats, or would it be better fed dry?
2. How much flaxseed is it advisable to feed to a calf in skim milk, and how to prepare it?
3. Are calves better kept inside in summer than outside?
4. Could a fairly good milk house be built for a summer or so's use out of cedar logs or lumber? Please prescribe method, if so, for a small one of about 8 x 10 feet.

T. L.

Ans.—1. If for the first two or three weeks after weaning you have sufficient kitchen swill and scraps in which to mix rice meal or sifted oatmeal to give the pigs a good start, you might grow them fairly well later on the foods mentioned mixed with water.

2. The only safe way to feed flaxseed is to steep it for twelve hours in water, then boil it to a jelly, and feed from half a pint to a pint in warm milk, according to age of calf. When calves begin to eat oats or meal and bran, as they will at a month old, we would prefer coarse, ground oil cake, dry, as part of the mixture.

3. Decidedly better to keep them in.

4. Yes, by chinking and plastering with mud or mortar between logs, and studding and lining with lumber inside, leaving a dead-air space.

Tuttle's Elixir

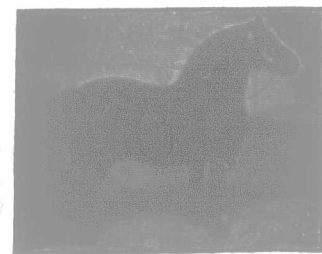
\$100.00 REWARD.



Cures all species of lameness, curbs, splints, contracted cords, thrush, etc., in horses. Equally good for internal use in colic, distemper, founder, pneumonia, etc. Satisfaction guaranteed or money refunded. Used and endorsed by Adams Express Company.

SOLD BY ALL DRUGGISTS.
TUTTLE'S FAMILY ELIXIR Cures rheumatism, sprains, bruises, etc. Kills pain instantly. Our 100-page book, "Veterinary Experience," Free.
TUTTLE'S ELIXIR CO., 66 Beverly St., Boston, Mass.
Beware of so-called Elixirs—none genuine but Tuttle's. Avoid all blisters: they offer only temporary relief if any.
LYMAN, KNOX & SON, AGENTS,
Montreal and Toronto, Canada.

PERCHERONS at BARGAIN PRICES



In order to make room for our new importation, for the next 60 days we will sell stallions at greatly reduced prices. Come and see us while this sale lasts. We have some of our best ones yet. Among them is a black not three years old, weighing 1900 lbs., with the best of breeding. Located three miles out of town, or two miles from Ruthven, on the Pere Marquette. We pay livery if not on hand to meet you. Address: 0

I. A. & E. J. WIGLE,
Essex County, Kingsville, Ontario.

IMPORTED

Shire and Suffolk Punch Stallions

rising 3 and 4 years old, of first quality, for sale reasonable, considering quality. Apply to

DR. JOHN WATSON, IMPORTER,
Howick, Que. 0

2 Registered Clydesdale Stallions FOR SALE.

For price and particulars write to
R. & O. PALING, 0
Caledonia Stn. & Tel., - North Seneca

Burdnett Stock Farm—Clydesdales of the most fashionable strains. Imp. and Canadian-bred mares for sale reasonable. Also Berkshire pigs. For particulars write to
A. S. GORBLEY, Unionville Stn. and P.O. 0

Canadian Clydesdales for sale. One stallion rising 2 years. For further particulars, apply to
GEO. BOTHAM, Bradford, Ont. 0

CANADIAN PACIFIC

SETTLERS' TRAINS

WILL LEAVE TORONTO
EVERY TUESDAY

DURING MARCH AND APRIL

AT 9 P.M., FOR

MANITOBA AND THE NORTHWEST

Via Grand Trunk to North Bay, thence Canadian Pacific. A colonist sleeper will be attached to each train. Passengers traveling without live-stock should take the train leaving Toronto at 1.45 p. m. Train leaving Toronto at 9 p. m. is for passengers traveling with stock.

Full particulars and copy of "Western Canada" from any C. P. R. agent, or C. B. FOSTER, D. P. A., Toronto. 0

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. 58,000 patients. Book 57F Free. Very interesting. Write P. HAROLD HAYES, Buffalo, N. Y. 0

Advertise in the Advocate

TRUMANS' CHAMPION STUD

READ OUR UNBEATEN RECORD AT ST. LOUIS WORLD'S FAIR:

Premier Championship.
Reserve Grand Championships.
Three Reserve Championships.
Six \$100 Shire Horse Ass'n Gold Medals.
Six Second Premiums.
Three Fourth Premiums.

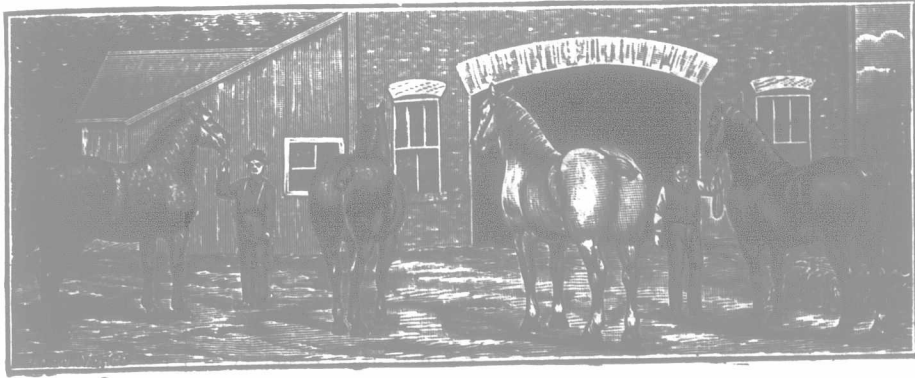
Grand Championship.
Two Championships.
Five Diplomas.
Nine First Premiums.
Six Third Premiums.
Two Fifth Premiums.

Our fourth carload of Shire, Percheron and Hackney stallions just arrived at our London, Ont., stables, at the Reid Hotel, and with those already on hand make the best collection of stallions to pick from in Canada, many of them being World's Fair and International winners. A responsible guarantee given with every horse. We will sell a better stallion for the money than any other firm. **TWENTY-SEVEN YEARS IN THE IMPORTING BUSINESS.** Write for full particulars and new Catalogue Q.

Trumans' Pioneer Stud Farm

BUSHNELL, ILL., U.S.A.

Address: **H. W. TRUMAN,** Manager, London, Ont., Branch.
J. H. TRUMAN, Whittlesea, England.



20-PERCHERONS-20

Have just arrived with our new importation, Jan. 31st, 1905, direct from France, of 20 high-class Percherons and prizewinners in France, from the best breeders in France. They are descendants of such noted champions as Brilliant, Besique, Romulus. Have personally selected every horse ourselves, using extraordinary caution to select nothing but good, sound, serviceable horses that will do our customers and the country good. Colors, black and dark dapple grays. They are large and blocky fellows, 3 to 5 years old, and can go like and trotters, weighing 1600 lbs. to 2000 lbs., with the right kind of feet and legs. We have a few choice German Coachers and Hackneys that are also for sale. We will sell you a better stallion for less money than any other importers in America, with a guarantee as good as gold. Intending purchasers should visit our stables before buying elsewhere. Inspect our stock and get our prices. Terms made to suit purchasers.

HAMILTON & HAWTHORNE, SIMCOE, ONTARIO.
82 miles south-west of Toronto, on G. T. R.

Is Your Horse Worth 75c.?

As used in the Royal Stables.



If lame he is of no use to anybody. 75c. will purchase a box of

STEVENS' OINTMENT

as used in the Royal Stables, with full directions and it will surely cure Splint, Spavin, Curb, Kingbone, 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.

125 Percheron, Shire and Hackney .. Stallions and Cares ..

At the World's Fair at St. Louis I won more Premier Championship awards than any other exhibitor of live stock; I won every Premier Championship offered on Hackneys, also every Gold Medal but one. At Chicago International, 1904, on 20 head I won 34 prizes.

I HAVE THE GOODS and will pay intending buyers' R. R. fare here from any part of Canada, sell you a good Stallion for \$700 to \$1,000, or choice of my barns for \$1,400, delivered in your town. I will guarantee stallions. I will sell against death for two years, and to get 60% mares in foal.

Time of payments made to suit the purchaser.

LEW W. COCHRAN, 607 West Main St., Crawfordsville, Ind.

SAVE 20 CENTS PER SHEEP on every sheep you shear with

STEWART'S IMPROVED 1904 SHEEP SHEARING MACHINE Price in Canada **\$17**

For sale by all leading jobbers. The day of the old-fashioned hand shears is past. No owner of 10 sheep or more can afford to shear by hand, even though the work be done for nothing. Don't butcher your sheep. Shear with machine and get one pound of wool extra per head. It will more than cover the cost of shearing. Send to-day for valuable book, "Hints on Shearing." It is free, and will save you money.

CHICAGO FLEXIBLE SHAFT COMPANY, 110 LaSalle Ave., Chicago.

QUESTIONS AND ANSWERS. Veterinary.

INDIGESTION.

Nine-months-old colt occasionally turns his head to flank, paws and kicks a little. B. S.

Ans.—This is due to indigestion. Purge with six to eight ounces raw linseed oil; follow up with half a dram each ginger and gentian in damp food night and morning. Feed on small quantities of good clover hay and scalded chopped oats and bran. See that he gets regular exercise. V.

INAPPETENCE.

My calf did well until about five weeks ago; since when it will eat nothing but straw. J. B. R.

Ans.—It is probable it was over-fed when quite young. Purge it with six ounces raw linseed oil. Then take one ounce each sulphate of iron, gentian, ginger and nux vomica; mix, and make into twenty-four powders, and give a powder three times daily in half a pint of cold water as a drench. Feed on new milk and good clover hay in reasonable quantities. V.

UNTHRIFTY COLT.

Three-year-old driver, getting regular exercise, and being fed on hay, oats, bran and boiled barley, does not thrive. He is hidebound, and hind legs swell, and he has scabs around the fetlocks. Give treatment for a speedy recovery. M. W. M.

Ans.—The colt is sadly out of condition, and the symptoms indicate worms. Speedy cures cannot be effected in such cases. It requires time and care to restore such an animal to good condition. Get 1 1/2 ozs. each sulphate of iron, sulphate of copper, tartar emetic and calomel; mix, and make into 12 powders; give a powder night and morning. Give nothing to eat for 10 hours after he takes the last powder. Then, give a purgative of 7 drs. aloes and 2 drs. ginger. Feed bran only until purgation commences. After purgation ceases, give 1 dram each of gentian, ginger and nux vomica, three times daily. Exercise him daily, and feed as you have been feeding. Apply oxide of zinc ointment to the scabs and cracks. V.

PROBABLY TUBERCULOSIS.

Cow seems stiff and grunts while eating or chewing her cud. She eats well, and her bowels are natural; but she is falling in flesh and getting weak. She has a desire for chewing bones and wood. M. V. M.

Ans.—I am of the opinion she has pulmonary tuberculosis, and, if so, she will not get better. As her appetite is good, and her bowels normal, we must conclude that the grunt and stiffness are not due to digestive trouble. I would advise you to have her examined by your veterinarian. If you decide it is stomachic trouble, and decide to treat her yourself, give her 2 lbs. Epsom salts, and follow with 1 dram each sulphate of iron, gentian, ginger and nux vomica three times daily. The abnormal appetite is due to a want of phosphates in the system, and can be corrected by giving her all the salt she will eat, and 1 dram phosphate of lime three times daily. V.

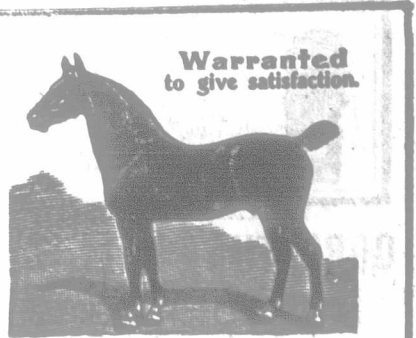
DISTEMPER, CHRONIC COUGH.

1. Several of my horses have had distemper, and two of them continue to cough for six weeks after recovery.

2. Give treatment for distemper. W. C. S.

Ans.—1. Chronic coughs resulting as a sequel to distemper are hard to treat. Give each horse a ball composed of the following every morning, viz., 2 drams solid extract of belladonna, 1 1/2 drams gum opium, 1 dram camphor, and 30 grains powdered digitalis, mixed with sufficient treacle to make it plastic.

2. Distemper is liable to many complications, which require treatment according to symptoms. Treatment for an ordinary case of what is called regular strangles or distemper, consists in good care, blistering the throat with equal parts spirits of ammonia, oil of turpentine and raw linseed oil, applied twice daily until the parts are blistered; giving internally 3 to 4 drams hyposulphite of soda, and lancing the abscesses as they form. V.



Warranted to give satisfaction.

GOMBAULT'S CAUSTIC BALSAM

A safe, speedy and positive cure for

Curb, Splint, Sweeney, Capped Hock, Strained Tendons, Founder, Wind Puffs, and all lameness from Spavin, Kingbone, and other bony tumors. Cures all skin diseases or Parasites, Thrush, Diphtheria. Removes all Bunches from Horses or Cattle.

As a HUMAN REMEDY for Rheumatism, Sprains, Sore Throat, etc. it is invaluable. Every bottle of Caustic Balsam sold is warranted to give satisfaction. Price \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars, testimonials, etc. Address THE LAWRENCE-WILLIAMS COMPANY, Toronto, Can.



ACCIDENTS

will happen. The colts will get hurt. Any Soft Inflamed Bunch can be removed in a pleasing manner with

ABSORBINE

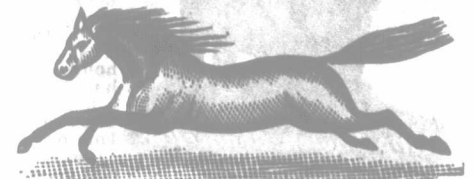
No blister. No hair gone. Comfort for the horse. Profit for you. \$2.00 per bottle delivered. Book 4-B free.

ABSORBINE, JR., for man-kind, \$1.00 bottle. Removes the black and blue from a bruise at once. Stop Toothache, Reduce Swellings. Genuine manufactured only by

W. F. Young, P. D. F., 73 Monmouth St., Springfield, Mass. Canadian Agents, Lyman, Sons & Co., Montreal.

"THE REPOSITORY"

Burns & Shppard, 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.

Clydes & Hackneys

FOR SALE: Nine choice imported

Clydesdale Stallions

By such noted sires as Hithwatha, Prince of Kyle, Ornament, Asot and Sir Hugo. Also six choice imported HACKNEYS, by the English champion, Garton Duke of Connaught, and others. All are rare good individuals. Determined to reduce stock, will make prices and terms to suit customers. A rare chance for a good stallion at a right price. Millbrook is on G. T. R., 18 miles north of Port Hope. Call or write. T. H. HASSARD, MILLBROOK, ONT.

Clydesdale Stallions and Fillies.

Imported and Canadian-bred. For sale: Two Canadian-bred stallions, rising 3 years, from imp. sire and dams. Also SEVERAL Cows and Heifers for sale. Reasonable prices. For particulars write to

JAS. W. INNES, Cityview Farm, Woodstock, Ont.



DEATH TO HEAVES. Beware of cheap, cheap, cheap. A veterinary specific for wind, heaves and stomach troubles. Does not recommend. \$1.00 per box, of dealers, or Exp. direct. The Newton Kennedy Co., Toledo, Ohio.

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

TELEPHONES For Farmers
The man who wants to know ALL about telephones for farmers should send for free book F-116. Telephone Facts for Farmers. Address nearest office Stramberg-Carlson Tel. Co., Rochester, N. Y., Chicago, Ill.

CORN THAT WILL GROW

Canadian-grown Seed. White Cap Yellow Dent, testing 92 to 100; Learning, testing 88 to 91; North Dakota, testing 90 to 91; Eight-Row Yellow Flint, testing 94 to germinate. Write for price list.

DUKE & BRUNER, - Ruthven.

THE SUNNYSIDE HEREFORDS

Imp. Onward in service. Eight choice bulls of serviceable age; this includes 4 two-year-olds, all of the blocky, heavy type, at prices that will move them. We can yet spare some cow and heifers. Inspection invited.

O'NEIL BROS., Southgate Ont. Ilderton Sta., L. H. & B.; Lucan Sta., G. T. R.

MURON CENTRAL STOCK FARM OF ABERDEEN-ANGUS

Our present offering is seven young bulls, 8 to 18 months old. All sired by the champion bull Goderich Chief 3743. All stock registered in the American Herdbook. Also offering the young coach stallion Godolier, winner of 1st at London this year.

H. BUTT & SONS, - Clinton, Ont.

HIGH-CLASS HEREFORDS

We have for sale the following choice young stock, which have been bred from imported stock. Intending buyers will do well to inspect the following: 15 young bulls, 20 young heifers and 15 cows; also Barred Rocks. Try a setting of eggs from our imported pens (winners).

A. S. HUNTER, DURHAM, ONT.

ONE IMPORTED RED YEARLING BULL



Sired by Spicy King, and of the Broadhooks family, bred by Ader-son, of Saph-ock, Old Meldrum. Also three first-class home-bred bulls of choice breeding. Imported cows and heifers with calves at moderate prices.

H. J. DAVIS, Woodstock, Ont. Breeder and Importer of Shorthorns and Yorkshires.

ELM GROVE SHORTHORNS

We have for sale some good young cows and heifers, of the Fashion and Bell Forest families, in calf to Scotti-h Rex (imp.) or Village Earl (imp.), our present herd bull. For prices and particulars address

W. G. SANDERS & SON, Box 1133, St. Thomas, Ont.

FOR SALE: A handsome FIVE-YEAR-OLD BULL

Sire, Manor De Kol's Prince. Dam, Belle Burke Mechtulde. A bull with excellent daughters, proved last season in their 2-year-old form. Price right, as I wish to dispose of him, as I have no further use for him.

J. A. CASKEY, Madoc, 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.**

SHORTHORNS FOR SALE

Either sex, at reasonable prices. **J. K. HUX, - Rodney P. O. and Stn.**

BARREN COWS CURED
PAMPHLET FREE
MOORE BROS., V.S., ALBANY, N.Y.

Scotch Shorthorns



YOUNG BULLS AND HEIFERS by imp. Royal Prince 71490 and imp. Blue Ribbon 17095 for sale at very reasonable prices. Come and see what I have.

DAVID BIRELL, Maple Hill Stock Farm, Greenwood Ont. Pickering Sta., G. T. R. Claremont, G. P. R.

SPECIAL OFFERING OF SHORTHORNS and SHROPSHIRE

(Imp.) Scotland's Pride = 36098 =, 5 years old, a Cruickshank Clipper, by the great sire, Star of Morning. (Imp.) Scottish Pride = 36106 =, 4 years old, a grand sire, of the Marr Roan Lady family. 3 bulls, 2 years old, and 7 from 9 to 15 months. 20 imported and home-bred cows and heifers. All of the most approved Scotch breeding. 30 Shropshire ewes, one and two years old. 25 ram lambs. No reasonable offer refused. For catalogue or further particulars write

W. G. PETTIT & SONS, FREEMAN, - ONT. Burlington Jct. Station, Telegraph, Telephone.

MAPLE HILL STOCK FARM SCOTCH SHORTHORNS

of the Brawith Bud, Coelia, Mayflower, Fashion and Daisy families. Herd headed by the grandly-bred Lavender bull, Wanderer's Star = 48685 =, by Wanderer's Last (imp.). Special offering: A few choice young bulls.

WM. E. ELLIOTT & SONS, Box 426, Guelph, Ont.

Shorthorns and Lincolns

12 young bulls, 6 heifers, and some young cows of choice breeding. Prices very reasonable.

W. H. TAYLOR & SON, Parkhill, Ont.

Shorthorns, Cotswolds, Berkshires

FOR SALE: Bull and heifer calves, seven to fifteen months. Also yearling and two-year-old heifers and young cows.

CHAS. E. BONNYCASTLE, Campbellford, Ont., P. O. and Station.

Scotch Shorthorns

YOUNG BULLS and HEIFERS sired by Marengo's Heydon Duke, imp. = 36063 =, for sale reasonable. Come and see them or write to

W. J. SHEAN & CO., Rosevale Stock Farm, Owen Sound, Ont.

SHORTHORNS

PRESENT OFFERINGS: - Ross Robin 28575, a Watt bull; Prince Charley 50112, a Russell bull. Also four choice young bulls. For price and particulars write **W. H. WALLACE, Woodland Farm, Mt. Forest, Ont.**

Shorthorns, Lincolns and Berkshires

Young stock of either sex for sale. Reasonable. For particulars apply to **W. H. Ford, Maple Shade Farm, Dutton, 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.**

SHORTHORNS

Choice young bulls for sale, ready for service. For particulars write to **JOHN ELDER, Hensall Stn., & P. O., Ont.**

Wm. Grainger & Son

Hawthorne Herd of Deep-milking Shorthorns. Aberdeen Hero (imp.) at head of herd. Present offerings 6 good young bulls by Scotch sires. Come and see what we have. **Londesboro Sta. & P. O.**

LAKEVIEW SHORTHORNS.

Spicy King (imp.) at head of herd. Young bulls for sale reasonably. For prices, etc., apply to **THOS. ALLIN & BROS., OSHAWA, ONT.**

For Sale—Shorthorns, Leicesters and Berkshires.

Also Buff Orpington cockerels. Write for wants, or come and see. **R. JEFFES & SON, Bond Head P. O. Bradford and Beeton Stns., G. T. R.**

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.**

SCOTCH SHORTHORNS

55 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.

LOCUST HEDGE STOCK FARM. SHORTHORNS

Seven grand young bulls, fit for service, sired by the Princess Royal bull imp. Prince of the Forest = 40409 =.

JAS. & ED. CHINNICK, Box 425, Chatham, Ont.

RIDGEWOOD PARK STOCK FARM SCOTCH SHORTHORNS

Special offering on account of shortage of feed: Imp. and Canadian-bred cows and heifers, some first-class show stuff of leading families, including Missies, Mayflowers and Village Girls, and by such imp. sires as Imp. Favorite (83469), Nonpareil Archer and Marquis of Zenda. No fancy prices. Satisfaction guaranteed. Visitors met by appointment and always welcome.

E. C. & E. O. ATTRILL, Goderich, Ont.

CHAS. RANKIN, WYEBRIDGE, ONT.

IMPORTER AND BREEDER OF SHORTHORN CATTLE and OXFORD DOWN SHEEP.

Herd headed by Pride of Scotland (imp.). FOR SALE—Females and bulls of all ages, from noted Scotch families.

R. & S. NICHOLSON SCOTCH SHORTHORNS

Present offering: Seven young bulls of serviceable age; good ones. Prices right. For particulars write to above firm.

Parkhill Sta. and Telegraph, SYLVAN, ONT.

BELMAR PARK SHORTHORNS

We offer six splendid young Scotch bulls and a really choice lot of females at prices that will pay you. Address:

PETER WHITE, JR., PEMBROKE, 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.

SHORTHORNS

Clydesdales and Yorkshires. A few fillies for sale. Also 50 Large English Yorkshires, all imported or bred from imported stock. Will sell cheap, as intend to leave the farm in spring.

ALEX. ISAAC, Cobourg P. O. and Station, - Ontario.

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.

SHORTHORNS & CLYDESDALES

Present offerings, a few young bulls, sired by Prince of Banff (imp.), also one registered Clydesdale stallion, rising 2 years. Prices low, considering quality.

DAVID HILL, Staffa, Ont.

SHORTHORNS FOR SALE

Both male and female, different ages. Prices very reasonable. For particulars write to **CHAS. R. PORTER, Tottenham Sta., G. T. R. Lloydtown, Ont.**

Shorthorns and Yorkshires

Present offerings: Young stock, either sex. For price and description write to **W. J. MITTON, Mapleton Park Farm, THAMESVILLE, ONT.**

HOLLYMOUNT STOCK FARM. SCOTCH SHORTHORNS.

Young stock, either sex, from imp. sire and dams, for sale. For price and particulars write to **W. J. THOMPSON, Mitchell, Ont.**

THOS. MERCER, Box 33, Markdale, Ont. Breeder and importer of CLYDESDALE HORSES, SHORTHORN CATTLE and YORKSHIRE PIGS. Car lots a specialty.

VALLEY HOME STOCK FARM

S. J. PEARSON, SON & CO. Breeders of Shorthorn Cattle, Berkshire Swine & Shropshire Sheep.

For sale, seven young bulls fit for service, four from imported sires and dams. All pure Scotch breeding, of choice quality. Prices away down for quick sale. No reasonable offer refused. Also a choice lot of young Berkshires. Visitors welcomed.

Meadowvale P. O., Tel. & Station on C. P. R. Six miles from Brampton on G. T. R.

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 mod-rate prices.

Robert Miller, Stauffville, Ont. Representative in America of Alfred Mansell & Co., Shrewsbury, England.

A. EDWARD MEYER

Box 378, Guelph, Ont. Breeder of High-class Scotch Shorthorns Princess Royals, Brawith Buds, Villages, Nonpareils, Minas, Bessies, Clarets, Urys and others. Herd bull, imp. Chief of Stars (72115), 145417 = 33076 =, Lovely Prince = 50757 =. Some choice yearling heifers for sale. Correspondence solicited. Visitors welcome. Telephone in house.

14 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.

Three Scotch-topped Shorthorn Bulls

FOR SALE. 2 by Prince Gloster = 40998 =, one by Collynie Archer (imp.). The names of such bulls as Royal Barmpton (imp.), Stanley (imp.), Prince of the Realm (imp.), Earl of March and Revenne = 21033 = appear in the pedigrees. Good individuals; must be sold. Inspection solicited. Visitors welcome.

Stations: Myrtle, C. P. R.; Brooklin, G. T. R. WM. D. DYER, Columbus, Ont.

Queenston Heights Shorthorns

FOR SALE—Two Scotch bulls, from imported sires and dams. Strictly high-class and of choicest breeding. Write for particulars.

HUDSON USHER, Queenston, 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, 1904. Stock of either sire for sale. **GEORGE D. FLETCHER, Binkham P. O., Ont. Erin Shipping Station, C. P. R.**

Belvoir Stock Farm

SHORTHORN BULLS, various ages; imported and home-bred, by imp. Gay Lothario, a Cruickshank Lavender. **CLYDESTALLION**, 2 years old; sire imp., dam a winner, grandam 1st Highland Show. **YORKSHIRES**—Sows and boars, various ages; not akin. Three imp. boars and 5 imp. sows to select from, and their progeny. Prices right. Also honorable dealing.

RICHARD GIBSON, Delaware, Ont.

SHORTHORNS!

One red bull calf, and one red three-year-old heifer to calf May 1st. All from good milking strain. To be sold cheap.

GLENAVON STOCK FARM, W. B. Roberts, St. Thomas Stn. Sparta P. O.

High-class Shorthorns—We have now for sale one bull, 2-year-old prizewinner, and one yearling; also a number of young cows and heifers. **BROWN BROS., Lakeview Farm, Orono, Ont. Newcastle Sta., G. T. R.**

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 Sta., G. T. R. Tyrone P. O.**

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, - Baden Sta.**

For Sale: Shorthorn Bull, 16 months old;

Choice Shorthorn Bull, dark red color, and from excellent milking strain. Apply, **GEORGE LEWIS, Lot 10, Con. 7, London Tp., Ballymote P. O.**

SHORTHORNS

For Sale—I still have some young cows with calves at foot for sale. Good animals and well bred. **Hugh Thomson, Box 556, St. Mary's, Ont.**

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

SHORTHORNS

Still have a few good young bulls to offer. Also an exceptionally good lot of heifers, among which there are show animals. Prices easy.

CATALOGUE.

H. CARGILL & SON, CARGILL, ONT.
JOHN CLANCY, Manager.

MAPLE SHADE SHORTHORNS



Nine young bulls fit for service. Showing the finest Cruickshank breeding.

Good Size, Quality, Flesh and Bone.

Inspection invited. Catalogues on application.

JOHN DRYDEN & SON, Brooklin P. O., Ont.

PINE GROVE STOCK FARM
ROOKLAND, ONTARIO, CANADA.

Breeders of choice

SCOTCH SHORTHORNS and SHROPSHIRE.

W. C. EDWARDS & CO., Ltd., Props.

JOSEPH W. BARNET, Manager.

T. DOUGLAS & SONS,
Strathroy, Ontario.

SHORTHORNS and CLYDESDALES

Present offerings: 12 young bulls of No. 1 quality, ready for immediate service; also cows and heifers of all ages. Also one imp. stallion and two brood mares. Prices reasonable. Visitors welcome. Farm one mile from town.

15 YOUNG BULLS



Mostly imported and from imp. sire and dam. Also a choice lot of cows and heifers.

All Scotch

ARTHUR JOHNSTON

GREENWOOD, ONT.
Pickering, G. T. R. Claremont, C. P. R.

Spring Grove Stock Farm

SHORTHORN CATTLE & LINCOLN SHEEP.



First herd prize and sweepstake, Toronto Exhibition, 3 years in succession. Herd headed by the imported Dutch-bred bull, Rosy Morning, and White Hall Ramden. Present crop of calves sired by Imp. Prince Sunbeam, 1st Toronto, 1903. High-class Shorthorns of all ages for sale. Also prize-winning Lincolns. Apply

T. E. ROBSON, ILBERTON, ONT.

MAPLE LODGE STOCK FARM

1854.

Eight very choice young bulls, of the best breeding and from first-class milking cows. A few handsome heifers also for sale, and a few Leicesters. om

A. W. SMITH, Maple Lodge P. O., Ont.

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.

SHORTHORNS FOR SALE.

Three bulls about 10 months old, two roans and one red; 5 one-year-old heifers; 6 heifer calves, all sired by Imp. Diamond Jubilee. Also a few choice cows carrying calves or with calves at foot. For prices, apply to

FITZGERALD BROS., 101 St. Louis P. O., Glenvale Sta., Hillsdale Telegraph Office.

SHORTHORNS and CLYDESDALES

Spicy Count (Imp.), 5 thick, fleshy bulls, 12 months old; a few heifers and 6 splendid Clydesdales; 3 mares registered. All young.

JAS. McARTHUR

Pine Grove Stock Farm. GOBLE'S, QNT.

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.

ELMHEDGE SCOTCH SHORTHORNS

Stamfords, Minas, Nonpareils, Crimson 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, Strathnairn P. O., Meaford Sta.

SPRING VALLEY SHORTHORNS

Good bulls at reasonable prices, out of good Scotch cows, and by such bulls as Bapton Chancellor (Imp.), Scottish Bean (Imp.), Nonpareil Archer (Imp.), Clipper Hero, etc. For further particulars, apply to

KYLE BROS., Ayr, Ont.

J. A. LATTIMER, Box 16, Woodstock, Ont.

Offers Shorthorn Bulls, fit for service. Also two Shorthorn sows in pig to imp. boar. All at prices that will induce you to buy. Write for further particulars.

Shorthorns, 6 bulls, 6 to 18 mos., by Provost -57855-. For prices write to

EDWARD WILKIN, Springfield Stock Farm, o Harrison, Ont.

SPRINGHILL AYRSHIRES

Animals from this herd won the aged herd prize, also first on aged cow and champion female at both Toronto and Ottawa this fall. A number of young bulls from prize-winning cows, also females, all ages, for sale.

Robt. Hunter & Sons, Maxville, Ont.

Farm one mile from Maxville Station on C. A. R.

PRIZE-WINNING AYRSHIRES

Imported bulls from the best milking strains in Scotland head the herd of 75 head. Windings for 1904 at Toronto and Ottawa: The gold medal and 4 first prize herds; 38 prizes in all—13 firsts, 6 seconds, 5 thirds, 9 fourths. In the Pan-American milk test, the 3 first Ayrshires were from this herd. Quality, size, milk and tests is our aim. Young bulls and heifers for sale. Price and particulars, apply to om

JAS. BODEN, Manager, St. Anne de Bellevue, P. Q.

G. T. R. and C. P. R. stations on the farm. 2 miles west of Montreal.

WOODROFFE AYRSHIRES

25 head for sale, 4 to 20 months old, from cows named in my herd record, and sired by 1st-prize bull at St. Louis World's Fair.

YORKSHIRE SWINE of best breeding always on hand at moderate prices. Terms to suit purchasers. Inspection invited.

J. G. CLARK, - Ottawa, Canada.

AYRSHIRES AND YORKSHIRES

Choice young bulls fit for service, bred for the dairy at dairyman's prices. Young calves at extremely low prices. A few yearling heifers. Young sows safe in pig. Some choice Jan pigs. Orders booked for March and April litters. Write for price, or anything you want.

"THE HUME FARM"

ALEX. HUME & CO., MENIE, ONT.
Hoard's Stn., G. T. R.

W. W. BALLANTYNE,
Stratford Stn. and P. O., Ontario.

MAPLE CLIFF DAIRY AND STOCK FARM

Breeders of Clydesdale Horses, Ayrshire Cattle, Berkshire and Tamworth Pigs

Young stock for sale at all times. o R. REID & CO., - Hintonburg, Ont.

Farm adjoins Central Experimental Farm.

SUNNYSIDE AYRSHIRES

Are now offering Leader of Meadow Bank, the Pan-American winner, and three young bulls, from 1 year to 2 mos. old; also cows and heifers, all ages. Prices right. Address om

JOHN W. LOGAN, Allan's Corners, Que. o

Springburn Stock Farm, North Williamsburg, Ont.

E. J. Whitteker & Sons, Props. We are now offering 10 Ayrshire Bulls, from 6 to 22 months old. Also eggs for hatching from our Buff Orpington fowls at \$1 per 13.

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. R. YVILL, Carleton Place, Ont.

Nether Lea Ayrshires—Young stock of either sex, from deep-milking families, for sale. Two choicely-bred imp. bulls at head of herd. Correspondence and inspection invited.

T. D. McCALLUM, Danville, Que.

HIGH-CLASS AYRSHIRE CATTLE

FOR SALE: Both sexes: bulls and heifer calves from 2 to 9 months old; cows and heifers all ages. Famous prizewinners bred from this herd, including Tom Brown and White Pines, sweepstakes prizewinners at Chicago. DAVID BENNING & SON, "Glenhurst," o Williamstown, Ont.

GOSSIP.

John—Can you tell me how they get the water in the watermelon?

Sam—No, sah.

John—Why, they plant the seed in the spring.

Mr. H. J. Davis, Woodstock, Ont., writes: "I have recently sold to Mr. A. Edward Meyer, Guelph, to head his fine herd of Shorthorns, the imported roan yearling bull, Scottish Hero, sired by Proud Champion, and of the Rosemary family of Scotch Shorthorns. This young bull possesses true Shorthorn character, being low to the ground, with good size, and a good head and horn, and will, in his present owner's hands, give a good account of himself. Have still for sale a fine yearling imported bull, by Spicy King, also three home-bred bulls of good breeding for sale."

Readers will learn with interest that Burnbrae Stock Farm, at Vankleek Hill, in Prescott County, Ontario, is offered for sale, together with the entire stock of about 50 head of pedigreed Holsteins and Jerseys, farming implements, etc. This is one of the finest stock farms in Eastern Ontario. It consists of 149 acres of excellent soil and bush land, only a few rods from both the C. P. R. and C. A. R. stations, and but 58 miles from Ottawa and Montreal. The farm is gravelly clay and sandy loam, and is very productive. There is also a very fine hard maple bush. The buildings upon it are all modern, and have every convenience, and in the best of condition. The creamery is fitted with a 1,000 per hour steam turbine separator, six h-p-boiler, etc. Having other important business that demands his attention, the present owner is retiring. See his advertisement in another column.

Mr. W. F. Stephen, Huntingdon, Que., is well and favorably known as a breeder of Ayrshire cattle of the most approved type. The herd numbers at present 35 head, and is headed by Lessnessock Crown Prince 19508 (imp. in dam by R. Hunter & Sons, Maxville, Ont.). His sire is Lessnessock Rare Style's Heir, dam Lessnessock Stylish Dewdrop 187792. His grandam was a producer of 55 lbs. of milk per day, also a prizewinner at the leading shows in Scotland. This stock bull was bred by the Messrs. Montgomerie, well-known breeders of high-class Ayrshires, and this one is no exception to the rule. He is getting some good things for Mr. Stephen. Among the females we mention a few to let our readers know the breeding that this herd contains; one is Peace 11129, by Uncle Sam of Trout River 6974, dam Nellie Osborne, the champion at the World's Fair, Chicago, 1893. Also a fine two-year-old heifer was to be seen, a daughter of Peace, sire Comrade's Last of Glenora, who was a winner at Toronto and the Pan-American in 1901. White Rose 17611, by Klondyke of Ste. Annes 8897, by Glencairn 3rd (imp.), has a very promising bull calf, ten months old, by Comrade's Last of Glenora. Jessie of Kelso 13044 is a very promising four-year-old, sired by Kelso Lad 8827. Another good ten-months-old bull is by Comrade's Last of Glenora, dam Violet. The Pilot of Glenora 16743 is the sire of most of the present crop of calves. This choice young bull won first prize at the Dominion Exhibition, Winnipeg, 1904, also headed the young herd that won at the same place. His sire was Imp. Black Prince of Whitehall 12208, dam Stately 9th (imp.) 12221. Cream and milk from this herd is shipped daily to Montreal. The total output from 26 cows and heifers, a few of which are grades, during 1904 was 172,803 lbs., an average of 6,646 lbs. each, testing almost 4 per cent., bringing in within a trifle of \$2,000 during the year. Mr. Stephen has moved from the farm into Huntingdon, and has left the principal part of the management in the hands of others, as considerable of his time is taken up at institute work, etc. We expect to see a much stronger herd (numerically) at Spring Brook Farm in the near future, as Mr. Stephen very recently bought an adjoining farm from his brother, which will give him a chance to carry more stock, which stock is sure to be Ayrshires. Write him, when you are in want of good ones.

Lump Jaw

Save the animal—save your herd—cure every case of Lump Jaw. The disease is fatal in time, and it spreads. Only one way to cure it—use

Fleming's Lump Jaw Cure

Not trouble—rub it on. No risk—your money back if it ever fails. Used for seven years by nearly all the big stockmen. Free illustrated book on Lump Jaw and other diseases and blemishes of cattle and horses. Write for it today.

FLEMING BROS., Chemists,
45 Front Street, West, Toronto, Can.

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 52.4 lbs. butter in 7 days, 10 cows whose official test average 50.4 lbs. butter in 7 days, 15 3 yrs. and up) whose official test average 19.0 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. This 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. BUCH, Annapolis Stock Farm, Tilsonburg, 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, ORAMPTON, 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 Mechtildie Fosch, 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, ONT.

Riverside Holsteins

50 head to select from. 8 young bulls from 6 to 10 months old, whose dams have official weekly records of from 17 to 21 lbs. butter; sired by Imp. Victor de Kol Pietertje, C. A. R. of M. No. 3, and Johanna Rue 4th Lad.

MATT. RICHARDSON & SON, Haldimand Co., Caledonia P. O., Ont.

Maple Grove Holsteins—In official tests they stand 1st for cow, 1st for 3-year-old, 1st 3-year-old and 1st under 2 years old. Special inducements are offered in high-class bulls to quick purchasers. For particulars address,

H. BOYLBERT, Cassel, Ont.

Maple Glen Holsteins—Special offering: Two 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.

C. J. GILROY & SON, Glen Buell, Ont.

Hilton Stock Farm Holsteins, Cotswolds and Tamworths.

Present offering: One young bull. A few young boars. One good one fit for service. At very reasonable prices if taken soon. For particulars write to

R. O. MORROW, Hilton P. O., Brighton Tel & Stn.

High-class Registered Holsteins. Young either sex for sale. Prices reasonable. Apply to:

THOS. CARLAW & SON, Campbellford Stn. o Warkworth P. O.

Advertise in the Advocate

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

YOUR ROOF

If we could show you the roofs on the Government buildings, railroad buildings, farm and poultry buildings all over the world, covered with

PAROID ROOFING

we would sell you the roofing for the next building you put up or repair, simply because we could prove to you that while it's not the cheapest roofing, it's the most economical in the long run. We cannot show you the buildings, but we can show you photographs, and they are yours on a postal's notice. Before you buy, just write us for free sample and booklet, "Building Economy."

F. W. BIRD & SON, Makers,

(Originators of the complete roofing kit. Fixtures in every roll.)

Established in U. S. 1817.

Hamilton, Ontario, Canada.

Do you want XXX Fruit



Government experts say the only fruit worth shipping is from Sprayed orchards.

Get the foreign buyers into your district by offering them perfect fruit. You want the best prices.

Use a **Spramotor.**

It's the most economical machine made. It is the only one used by the Dominion and Provincial Governments in their practical work. Made for Hand Power, Horse Power and Engine Power.

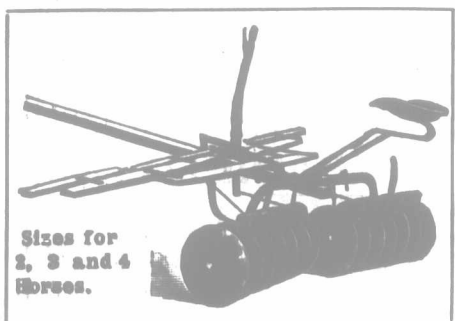
Write for Booklet "A". It will tell you all about the Spramotor, and what it will do.

Spramotor Co.

68-70 KING STREET, LONDON, CANADA.
107-109 ERIE STREET, BUFFALO, N.Y.

Agents Wanted.

THE BISSELL DISK HARROW



Sizes for
2, 3 and 4
Horses.

embodies SIMPLICITY, combined with great strength and efficiency. These are features followed through the entire construction of the BISSELL DISK HARROWS. The FRAME locks to the gangs, or sections, with a simple part turn, and can be put together or detached in an instant.

The team hitched well back near their work.

Two, Three or Four horses can be used. Clod Cleaner Bars between the plates keep out all soda or trash, while chisel-shaped Blades clean the cutting edges. These are only some of the features of the BISSELL DISK. Simple, strong, good.

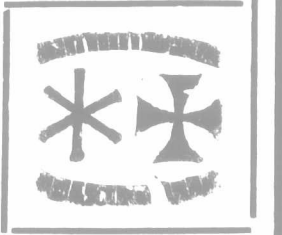
Send us your address on a postal card; we will cheerfully give you further information. Address

T. E. BISSELL, MANUFACTURER, ELORA, ONTARIO.
DEPT. W.

Joseph Rodgers & Sons
Limited,
SHEFFIELD, ENGLAND.

Please see that this EXACT MARK is on each blade.

James Hutton & Co., Montreal, SOLE AGENTS IN CANADA.



I CURED MY RUPTURE



I will show you **FREE** how to cure yours

"I was helpless and bedridden for years from a bad rupture. No truss could hold. Doctors said I would die if not operated upon. I fooled them all and cured myself by the Rice Method. I advise all ruptured persons to use this method," writes Mr. Robt. Howard, Muskoka Co., Ont. A Free Trial of this marvellous Method sent Free to all who write at once, giving description of their case. Thousands have been cured and **IT WILL CURE YOU.** Write to-day.

Dr. W. S. Rice, 21 East Queen St. Toronto, Ont.
Block (276)

GOSSIP.

Mr. John Lahmer, Vine, Ont., writes: "My Berkshire pigs have come through the winter very nicely, and the youngsters arriving, sired by Concord Triumph, are very promising. This hog is developing into a good, big pig, has plenty of length, with the best of bone, and as lively and active as a horse, with a very quiet disposition. With the increased prices of live hogs, will naturally expect an increase in the demand for breeding purposes. For some time I have been booking orders for spring delivery."

James T. Bardolph, Vernon, B. C., writes: "Enclosed please find \$1.50 for my subscription to the 'Farmer's Advocate' to Dec. 31st, 1905. I consider it a first-class agricultural paper, and enjoy reading it very much, but I would like to get the correspondent who wrote an article on 'Hogs in the Okanagan Valley' in one of your September numbers and take him for a drive to the farms around here that go in for hog breeding on a large scale, and I think I would easily convince him that his statement 'that attention is not paid to choosing of brood sows' is certainly wrong, as for quite a few years nearly all the hog breeders around this district have been importing breeding stock from both the States and Eastern Canada, and I think that the breeding stock on the whole in this district is far above the average."

Among the most enterprising of Canadian breeders and importers of Ayrshire cattle is Mr. R. R. Ness, of Howick, Que., who, although quite a young man, has established himself as a first-class judge and breeder of dairy cattle. He has about 60 head now on hand, and anticipates taking a trip across the Atlantic in a few weeks to get some more. The herd is headed by two imported bulls, viz., Barcheskie King's Own 5695, bred by Andrew Mitchell, sire Imperial Chief of Hillhouse 4601, by Prince Imperial of Netherhall, dam Derby 1st of Rigghead 11479, assisted by Monkland Speculation 5666, a fifteen-months-old bull, by White Cockade of Nethercraig 2852, by Cockie's Heir of Chapelton 2200, dam Beauty of Orchardton 9448, by Craig's of Kyle of Drumjoan 1793, one of the greatest milking stock producers in Scotland. Mr. Ness considers this young bull one of the best dairy sires that has ever crossed the water. He is not only strong in dairy-producing points, but has behind that of a grand pedigree. Some of the cows have been bred to him, and Mr. Ness expects something choice. A draft from this herd was shown at the Dominion Exhibition, 1904, Winnipeg, and landed 7 firsts, 6 seconds, and some third prizes, as well as one champion and one diploma in a strong class. They were then sold to an American who showed them at St. Louis, where they won first for senior herd and first for junior herd for four by one sire, first and third for two produce of one dam, second and third on aged cows, first and fourth on two-year-old heifers, first and fifth on yearling heifers, and first and third on heifer calves, and last, but not least, a premier championship for the most winners in the class bred by one breeder. This latter prize belongs to Mr. Ness, of which he justly feels proud. The lot won over \$2,000 at St. Louis. Mr. Ness imported 26 head last year, and sold over 50 head. The spacious barn in which they are housed is one of solid comfort with room for some 75 head in two rows of stalls, with box stalls along one side, made of wire fencing, suitable for young stock. The wall is a frame with matched lumber both inside and out, with rough lumber and building paper between, with plenty of large windows all round, making the stable both warm and light, so light that one could read the news in any part of the stable, and so warm that geraniums grow luxuriantly in each window. Over this stable is plenty of room for the season's crop, which means a great saving of labor compared with where hay and bedding has to be carried or drawn each day from adjoining buildings or from stacks. The cattle are scarcely ever out of the stable from the time they are taken off the grass in the fall, until they go out in the spring, water being before each animal in the stall so they can drink at will. This farm lies close along side of that of his father, Mr. R. Ness, the well-known horse importer.

Ring-Bone

So common nearly everybody knows it when he sees it. Lameness, and a bony enlargement just above the hoof, or higher and on the upper pastern bone, sometimes extending nearly around the part, sometimes in front only, or upon one or both sides. Cases like the latter are called Sidebone.

No matter how old the case, how big the lump, how lame the horse, or what other treatment has failed, use

Fleming's

Spavin and Ringbone Paste

Use it under our guarantee—money refunded if it fails to make the horse go sound. Often takes off the lump, but we can't promise that. One to three 45-minute applications required and anyone can use it. Get all the particulars before ordering—write for Free Horse Book that tells you what to use for every kind of blemish that horses have.

FLEMING BROS., Chemists,
45 Front Street, West, Toronto, Can.

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.

MAPLE PARK FARM HOLSTEINS.

Two choice bull calves for sale, sire Homestead Albino Paul De Kol. Also two 1-year-old heifers with 70-lb. dams.

S. MACKLIN, Prop., Streetsville, Ont.

DON'T WAIT BE UP-TO-DATE

And buy some choice young Jerseys. Two bulls and a number of A No. 1 cows and heifers from great milkers. Also collic pups.

W. W. EVERITT, Dun-edin Park Farm
Box 552, Chatham, 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 68.

Barren Cow Cure makes any animal under 10 years old breed, or refund money. Given in feed twice a day.

"With your Barren Cow Cure I succeeded in getting two of my cows in calf—one 10 years old, and had previously been served repeatedly to no purpose"—says M. E. Reeder, Muncy, Pa. Particulars from

L. F. SELLACK, Morrisburg, Ont.

Hampshire Down Sheep

GREAT ENGLISH PEDIGREE SALES
July, August and September, 1905

WATERS & RAWLENCE, Salisbury, England, will sell by **PUBLIC AUCTION** during the season upwards of

50,000 PURE-BRED EWES, LAMBS and RAMS

Including both rams and ewes from the best registered prizewinning flocks in the country.

Commissions carefully executed. Address:

WATERS & RAWLENCE, SALISBURY, ENGLAND.

HAMPSHIRE DOWN SHEEP.

"RESERVE" for CHAMPION in the SHORT WOOL CLASSES, SMITHFIELD, LONDON, 1904.

Splendid Mutton, Good Wool, Great Weight.

This highly valuable **ENGLISH BREED OF SHEEP** is unrivalled in its

WONDERFULLY EARLY MATURITY.

Hardiness of constitution, adapted to all climates, whilst in the quality of mutton and large proportion of lean meat it is unsurpassed, and for crossing purposes with any other breed unequalled. Full information of

JAMES E. RAWLENCE,

SECRETARY HAMPSHIRE DOWN SHEEP BREEDERS' ASSOCIATION,

SALISBURY, England.

THE RIBY HERD and FLOCK

OF SHORTHORN AND LINCOLN CATTLE AND SHEEP

The largest of each in England. Established 150 years, with world-wide reputation both in the show ring and sale yard. Holders of the 100-guinea champion prize at Smithfield Show, London, 1902, against all breeds, and breeder of the two 1,000-guinea rams, and also the heaviest sheep at Chicago Show, 1903. Selections for sale.

Cables—Dudding, Keelby, England.

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

SOUTHDOWN SHEEP
UNEQUALLED FOR FINE QUALITY OF BOTH
MUTTON AND WOOL, HARDINESS OF
CONSTITUTION, AND EARLI-
NESS OF MATURITY.
STRIDE & SON
 SELL BY AUCTION ANNUALLY, UP-
 WARDS OF
80,000
PURE-BRED SOUTHDOWN SHEEP
 About 400 rams and 60,000 ewes.
 Including consignments from nearly all the
 leading REGISTERED FLOCKS IN THE
 COUNTRY, will be sold by auction at
CHICHESTER,
 on WEDNESDAY, AUGUST 9th, 1905.
 The Duke of Richmond, from Goodwood, and
 Mr E Ellis, from Guildford, are sending rams
 and ewes to this sale.
COMMISSIONS CAREFULLY EXECUTED
 Telegrams: "Stride," Chichester.
 Postal address:
STRIDE & SON, Chichester, Sussex,
 England.

W. W. CHAPMAN,
 Secretary of the National Sheep Breed-
 ers' Association.
 Secretary of the Kent or Romney Marsh
 Sheep Breeders' Association,
 and late Secretary of the Southdown
 Sheep Society.
 Pedigree Live Stock Agent, Exporter and
 Shipper. All kinds of registered stock
 personally selected and exported on com-
 mission; quotations given, and all enquiries
 answered.
 Address: **HOWBRAY HOUSE, NORFOLK ST.**
LONDON, W. C., ENGLAND.
 Cables—Sheepcote. London.

THE MARHAM COTSWOLDS
 Largest flock of the breed in England,
 numbering 1,200. Over 300 rams dis-
 posed of annually. Fifty-second an-
 nual ram letting,
JULY 27th, 1905.
T. BROWN & SON, Marham Hall,
 Downham Market, Norfolk, Eng.
 Telegrams: Marham.
 Railway station: Downham, G. E. Ry.

Dorset Horn Sheep
 The largest flock in America. The most cele-
 brated prizewinners at the Columbian Ex-
 hibition and Canadian exhibitions. Contains
 more Royal winners than any other. Awarded
 5 out of 8 first prizes at Toronto, London and
 Ottawa in 1900. Flock of 300. Stock for sale
 always on hand.
John A. McGillivray, Uxbridge, Ont.

WOODSIDE FARM
Southdown
Sheep
 Write for what you want to
JOHN JACKSON, Abingdon, Ontario.

CHOICE SHROPSHIRE
 Always on hand, of the choicest quality and
 breeding. Our winnings this season: 38 firsts,
 26 seconds and 14 thirds at 9 shows, including
 Toronto and London. Lloyd-Jones Bros.,
 Burford, Ont.

Dorset Sheep and Large Yorkshires. A
 couple of shearing rams and a
 few young sows, at prices consistent with
 quality. Write **ELMER DYMENT,**
 Copetown P. O.

Grand Champion over all breeds at St. Louis
 World's Fair from our flock.
SOUTHDOWNS and HAMPSHIRE for sale.
 Write for what you want to
TELFER BROS.,
 Springfield Farm, Paris, Ont.

Oxford Down Sheep, Shorthorn Cattle
Yorkshire Hogs.
 Present offering: Lambs of either sex. For
 prices, etc., write to **JOHN COUSINS & SONS,**
 Buena Vista Farm, o Harrison, 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.

TAMWORTHS AND HOLSTEINS
 Our Tamworths having taken a share of the
 prizes offered at Winnipeg Exhibition, have
 taken the diploma for the best herd of four
 sows, besides other prizes. Boars and sows
 from one to six months and 2 yearling sows.
 Also 6 choice bull calves of right type.
Bertram Hoskin, The Gully P. O.
 Grafton, G.T.R.

TAMWORTHS
 A grand litter, 3 months old, sired by Col-
 will's Choice, the old Toronto sweepstakes
 winner. Price, \$6 each, registered.
D. J. GIBSON, Newcastle, Ontario

HILLCREST HERD OF
ENGLISH BERKSHIRES
JOHN LAHMER, Vine P. O.

**He Will Cure You First
 Then You Pay Him**

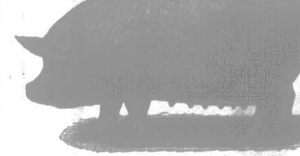
The physician, who has not sufficient confi-
 dence in his own ability to cure his patient first
 and receive his pay afterwards, is not the man to
 inspire confidence in those, who are in search
 of honest treatment.



Dr. Goldberg's acceptance of a case for treatment is equivalent to a cure, because he never accepts incurable cases. He is satisfied to receive the money for the cure he gives, but he expects to prove his worth and show positive and satisfac-
 tory results before he asks for the fee. So, should he fail to cure the case, the patient loses nothing, while the doctor, when he cures the patient, has given him what is worth much more than money—he has given him his health back.
 Dr. Goldberg is the first specialist in the United States or Canada, who has had sufficient confidence in his ability to say to the afflicted that not a dollar need be paid until cured.
 There is no guesswork, no experiment about his method. He is a known expert in his chosen specialty, and offers you the best, and only the best treatment. When your life or your health is at stake, inferior treatment (which leaves after-effects worse than the disease itself) is dear at any price.

Dr. Goldberg has 14 diplomas and certificates from the various colleges and state boards of medical examiners, which should be sufficient guarantee as to his standing and ability. It makes no difference who has failed to cure you, it will be to your advantage to get the doctor's opinion of your case free of charge. He wants to hear from patients who have been unable to get cured, as he guarantees a positive cure for all chronic, nervous, blood and skin diseases, which he accepts for treatment. He not only cures the condition itself, but likewise all the complications, such as rheumatism, bladder or kidney troubles, blood poisoning, physical and nervous debility, lack of vitality, stomach trouble, etc. All medicines for patients are prepared in his own laboratory to meet the requirements of each individual case. He will send a booklet on the subject, which contains the 14 diplomas and certificates, entirely free. All medicines for Canadian patients sent from Windsor, Ont., duty and transportation prepaid. Address him simply, Dr. S. Goldberg, 208 Woodward Ave., Suite 535 Detroit, Michigan.

LARGE ENGLISH YORKSHIRES



Pigs of the most approved type, 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. O. FLATT & SON
 MILLROVE, 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.

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.

YORKSHIRES

for sale, all ages, from imported prizewinning stock, of both sexes. Pairs not akin.
GEO. M. SMITH, Raysville P. O., Ont.

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 get of Colwill's Choice, our sweepstakes 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.

Now is the time to book your orders for young pigs for May and June delivery. A few good young boars on hand.

GOSSIP.

Mr. Gerald Wade, Secretary of the Open-Air Horse Parade Association, has received a letter from the Hon. Nelson Monteith, Minister of Agriculture for Ontario, and from the Hon. Adam Beck, London, Ont., accepting the position of patrons of this Association, and wishing the third annual Open-Air Horse Parade and Show every success.

The annual report of the Toronto Driving Club, containing an official record of all club contests, rules, regulations, etc., and embellished with portraits of the President, Ald. S. McBride; the Treasurer, J. H. Lock, and Secretary, H. Gerald Wade, has been issued, and is a credit to the latter officer.

Mr. D. Hill, evergreen specialist, Dundee, Ill., has issued his annual catalogue for 1905, which will be found interesting to tree growers. It contains many varieties in addition to evergreens. The condition of his nurseries and freedom from scale insects, etc., is attested by State Entomologist S. A. Forbes.

**"CAUSTIC BALSAM GIVES UNIVER-
 SAL SATISFACTION.**

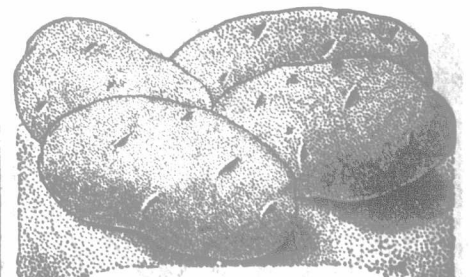
Wapella, N.-W. T., Canada,
 April 22, 1904.
 The Lawrence-Williams Co., Toronto, Ont.:
 Please send me by mail any nice show cards or advertising matter so I can make a good show. I have sold quite a lot of GOMBAULT'S CAUSTIC BALSAM, and it has given universal satisfaction. Yours for push and sales.
JAMES A. MACDONALD.

At the Provincial auction sale of cattle, held at Guelph, Ont., on March 22nd, under the auspices of the Guelph Fat-stock Club, 43 bulls sold for an average of \$78.78; 18 females brought an average of \$76.12, and the 61 head sold made average price of \$74.77. The highest price was \$250 for a Hereford bull, Forest Pride, contributed by John A. Gowanlock, Forest, and purchased by Robert Hanna, Bostock, Ont. The highest price for a Shorthorn bull was \$125 for Prince of Chesterfield, contributed by John Currie, Eramosa, and purchased by Jas. Auld, Eden Mills.

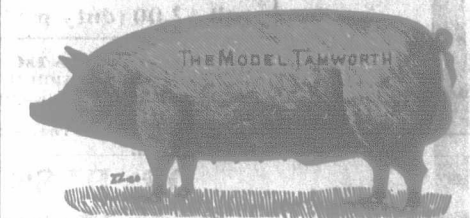
At a meeting of the cattle committee of the Western Fair Board, held at London, March 25th, the prize list was revised, the only change of importance made being in the herd prize for Holsteins, which will this year be graded: herd, namely, one bull, one cow four years old or over, two-year-old heifer, yearling heifer and heifer calf. The following were appointed judges: Short-horns—John Isaac, Markham; reserve, Jas. Douglas, Caledonia. Herefords, Angus and Galloways—R. J. Mackie, Oshawa; Walter Gooding, Guelph. Jerseys and Guernseys—Rock Bailey, Union; J. L. Clark, Altona. Ayrshires—Jas. Boden, St. Anne, Que.; Geo. McCormack, Rockton. Holsteins—B. Mallory, Frankfort; M. Richardson, Caledonia.

THE FERGUSON SALE.

Mr. George Ferguson's (Salem) sale of Clydesdale mares, Shorthorn cattle and Oxford Down sheep, which was held on Friday, March 17th, was very well attended. There were no startling figures; in fact, the bidding on the cattle was somewhat drabby. Messrs. R. A. & J. A. Watt, Salem, got the highest-priced ones in Lady Peer, by Scottish Peer (40424). She is a fine massive heifer, about twenty-nine months old, with a calf at foot by Royal Archer (Imp.). Bon Accord Belle (Vol. 18), a fine four-year-old cow with calf at foot, by Primrose Day (Imp.) 50072, went to Thos. Wallace, of Clifford, at \$100. She will make a fine addition to his herd. Twenty females realized \$1,612, an average of \$80.60; two bulls, \$60 each.
 The mare, Lady Lynedoch, rising five, got by Master Lynedoch, from Lady Laurier, and in foal to Red Duke (Imp.), went to Thos. McKeag, of Warton, for \$290. Queen Ella, out of Queen Bess, and sired by Just the Thing, rising three, and in the pink of condition, went to Calvin Green, of Hillsburg, for the even \$300. The sheep sold very well, though they were not so fine quality as the cattle and horses, some of the ewes bringing \$18 each.



**GOOD POTATOES
 BRING FANCY PRICES**
 To grow a large crop of good potatoes, the soil must contain plenty of Potash.
 Tomatoes, melons, cabbage, turnips, lettuce—in fact, all vegetables remove large quantities of Potash from the soil. Supply
Potash
 liberally by the use of fertilizers containing not less than 10 per cent. actual Potash. Better and more profitable yields are sure to follow.
 Our pamphlets are not advertising circulars, but contain valuable information to farmers. Sent free for the asking. Write now.
GERMAN KALI WORKS
 93 Nassau Street, New York.



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 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.

ORCHARD HOME HERD (Registered)
Large English Yorkshires and Berkshires
 Only choice stock kept, imported and home-bred, of most approved type; selected with great care and at high prices. We ship, express paid. Take stock back if not satisfactory. We buy our breeders, therefore best not reserved. Our motto: "Quality and square dealing." Choice young stock at reasonable prices.
S. D. CRANDALL & SONS, Cherry Valley, Ont.

ENGLISH BERKSHIRES.
 For Sale the Success 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 Kittobner 8402. Folegate Decoy, Folegate Dame, Folegate Dawn—winners in England, Canada and United States—were exported from this herd. For prices and particulars apply to: o Crampton Estate Office, Eastbourne, or to **F. A. Walling, 1 Cavendish Cottages, Eastbourne, Sussex, England.**

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.

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.

MAPLE GROVE YORKSHIRES FOR SALE.
 Pigs from 2 to 7 months old, from imported and home-bred sires; sows in farrow. Reduced prices for 30 days. One extra-large Toulouse gander and two Pekin bantam cockerels.
T. J. COLE, Box 159, Bowmanville, Ont.

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



The Bone and Sinew of the Farm

Unlike most animals, the horse is a beast of burden. The amount of work he performs and the spirit in which he performs it, depend largely upon the ability of his system to appropriate his dinner. Bone and muscle are required, and if he is unable to assimilate and appropriate the nitrogenous material which makes up bone and muscle a weakened and debilitated condition will soon be apparent.

DR. HESS STOCK FOOD

Contains the very essential tonics and laxatives that put the system to work and compel it to take care of the stuff fed. It is especially valuable for the development of calves and pigs at this season of the year. It prevents flatulence, indigestion and the like, whets up the appetite and assures perfect assimilation and rapid growth. It is not a condimental food, but a scientific stock tonic and laxative. It is the famous prescription of Dr. Hess (M.D., D.V.S.), and it owes its origin to his medical education and long practical stock experience.

Dr. Hess Stock Food is sold on a written guarantee, 100 lbs. for \$7.00; 25 lb. pail \$2.00 (duty paid); smaller quantities at slight advance. Fed in small dose.

Remember that from the 1st to the 10th of each month Dr. Hess will furnish veterinary advice and prescriptions free if you will mention this paper, state what stock you have, also what stock food you have fed, and enclose two cents for reply. In every package of Dr. Hess Stock Food there is a little yellow card that entitles you to this free service at any time.

Dr. Hess Stock Book Free.—If you will mention this paper, state how much stock you have and what kind of stock food you have used.

DR. HESS & CLARK, Ashland, Ohio, U. S. A.

Also manufacturers of Dr. Hess Poultry Panacea and Instant Louse Killer.

Instant Louse Killer Kills Lice.

London Fence

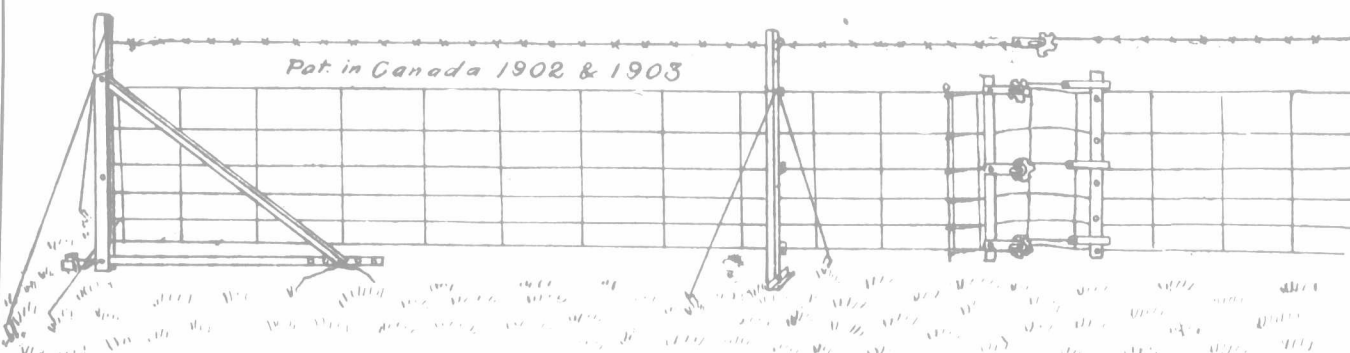
**THOR, (Greek God of Thunder and Friend of Man.)
To the Farmers of Canada.**

Lo, from the realms of thunder am I come to your assistance, For, having looked on your afflictions, I do know, How in this ready woven fencing ye have been deceived; Yea, e'en tormented by your vain attempts to right its many ills. For still, despite your labors, they do remain but eyesores, Or, at most, poor substitutes for what they should be— Fences—strong—built in their places—coiled, not kinked. Now, shall ye know the one and only perfect method— To construct each in its place, The one material and means wherewith to build them. E'en this famous "London" spring steel wire—coiled, not kinked, And this machine with equal never known to man.

London Fence Machine Co
LONDON AND CLEVELAND, LIMITED.

Western Agents—A. E. Hinds & Co., 602 Main St., Winnipeg.
Quebec and East. Ont.—Phelps & Smith, 60 McGill, Montreal.
Maritime Agent—J. W. Boulter, Summerside, P.E.I.

PORTABLE FENCE, OR STATIONARY FENCE?



Do you want Portable Cross-fencing this spring?

THE ONLY FENCE for temporary pastures, for dividing large fields, and general cross-fencing. Or do you want a **STATIONARY FENCE**? One that we will guarantee will not Heave, Rot or Burn. You need a Fire-proof Fence near the railroad. This is the most satisfactory general-purpose Farm Fence. Write for catalogue and prices on **STEEL POSTS, PORTABLE FENCE, GRAPE POSTS, ETC.**

THE CANADIAN PORTABLE FENCE CO., Toronto, Canada.
LIMITED

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

GOSSIP.

Once more hogs are in the ascendant. Present prices for bacon hogs for the packing-houses illustrate the wisdom of farmers who "stick to the gentleman that pays the rint." Get good brood sows and keep them. Do not "jump out of pigs" when prices sag down, only to be sorry when the next rise in prices comes. Mr. L. Rogers, of Emery, Ont., in this issue makes attractive offerings in pairs and trios of Improved Large Yorkshires, not akin, and sows from four to six months old. Look up his advertisement.

W. H. Tran, Cedar Grove, Ont., breeder of Ayrshire cattle and Yorksire pigs, writes: "Prince of Menie (16189), of very fine Ayrshire type, heads the herd of Ayrshires, has taken first whenever shown. Have a herd of about thirty, with some nice ones to choose from. In Improved Yorkshires, Broomhouse Joe (14537) (imp.), the stock sire, is a very fine hog, has been first when shown. Have imported and home-bred sows, stock of both sexes for sale. I am one of the oldest breeders in the country, my father and I having bred Yorkshires for over thirty years."

Mr. H. W. Truman, manager of the London branch of Trumans' Pioneer importing farm, writes the "Farmer's Advocate": "I have received a cable from my father, Mr. J. H. Truman, that he had left Liverpool per S.S. Victorian with another large consignment of stallions for our ever-increasing trade. He particularly mentions having on board a son of the London champion Cœur-de-Lion, and four grand young horses, by the world-famed sire, Blaisdon Conqueror. Our Mr. J. G. Truman wires he has sold two imported Shire geldings to the Jos. Schlitz Brewing Company, of Milwaukee, for the sum of \$2,400. We have just received another carload of Shire, Percheron and Hackney stallions at London, Ont., which makes the fifth during the past seven months. They are browns, blacks and greys; big, weighty fellows, of great substance and full of quality. With those already on hand, we can show intending buyers one of the best collections of stallions in Canada. "Amongst the recent sales from our London stables is that of the imported Shire stallion, Heavy Tom (22425), a photo of which appeared in the 'Farmer's Advocate' a short time since. This colt will be remembered as a winner at the great International Show held at Chicago last year, where he was much admired by many good judges. He is one of those thick-set, weighty horses that is sure to produce the kind of geldings that is in such great demand just now, and the Middlemarch & Yarmouth Shire and Percheron Horse Company, of St. Thomas, are to be congratulated upon securing this grand young horse. This is the second stallion this enterprising company has purchased from the Truman Stud within the past two months."

Messrs. Truman have also sold to Messrs. Neil and Colin Monroe, of Kilmarton, Ont., the iron-gray five-year-old Percheron stallion, Sport 2770. These gentlemen, after visiting several U. S. importing firms, returned to London and secured this grand young horse as their choice.

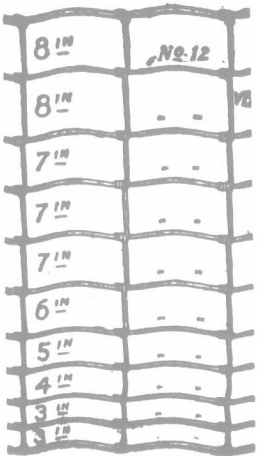
TO PREVENT RETENTION OF AFTER-BIRTH.

A Halton County, Ont., reader writes the "Farmer's Advocate" re prevention of the afterbirth in the case of cows as follows:

Cows, when due to calve, should be as near the same condition in winter as in summer; that is, the bowels should be well relaxed. Therefore, a few days before freshening, feed salt freely, and a few hours, or half a day, before freshening, do not give cow any water to drink; so, after freshening, she will be in a thirsty condition. After she freshens, give her a warm bran mash, followed in about half an hour with all the water she will drink, but not feed. I have given as much as five pails of water. My idea is that when this water passes away, it loosens and brings the afterbirth with it. I have had six cows freshen since Christmas, and not one of them gave any trouble or cost me a cent. I just followed this simple and natural course with entire satisfaction.

Why do "Page Fences Wear Best"?

BECAUSE—They are made of wire 50% stronger than Common Spring Steel Wire, so called.
BECAUSE—The horizontal wires are **COILED**. Mind you, **COILED**, not **CRIMPED**. A **COIL** gives several times the elasticity that does a crimp. This **COIL** is what enables Page Fences to do with posts long distances apart.



Our prices are very low, as you can judge for yourself when we tell you that we can deliver an 8-wire, HIGH CARBON FENCE, to any station east of Manitoba, and wherever we have a dealer, an experienced man with the proper tools will assist in putting the fence on the posts, if the order is of fair size, for not to exceed 41 cents per rod. All of our other styles in proportion, some for less money and some more.

We have all kinds, some close mesh (19 bar, 57 inch), some light (5 bar, 36 inch), some heavy (all No. 9 gauge.)

The railroads use Page Fencing in large amounts. Practically every road in Canada is using it. Look at this list, the first four of which each have from 100 to 1,000 miles in use, and the others each have from 10 to 100 miles:

- | | | |
|-----------------------|---------------------------------|-------------------------------------|
| Grand Trunk Ry. | Prince Edward Island Ry. | Central Vermont Ry. |
| Canadian Pacific Ry. | Chateaugay & Northern Ry. | Lindsay, Bobcaygeon & Pontypool Ry. |
| Intercolonial Ry. | Lake Erie & Detroit River Ry. | Bay of Quinte Ry. |
| Canadian Northern Ry. | Toronto, Hamilton & Buffalo Ry. | Algoma Central Ry. |
| Canada Atlantic Ry. | Michigan Central Ry. | Baie des Chaleurs Ry. |
| Great Northern Ry. | Halifax & Southwestern Ry. | |
| Quebec Southern Ry. | Cape Breton Ry. | |

Now, you know railroad corporations do not buy large amounts of goods, and keep on buying the same kind year after year unless they prove by use to be good value. Railroad men now acknowledge that PAGE FENCE is the best and cheapest.

NOTE.—All Page Fences are now painted **WHITE**—our special distinguishing mark. Get the **WHITE** brand and you will have our make of fence.

Also Page Gates, from \$1.75 up. Ornamental Lawn Fence, from 20c. per running foot. Also Poultry Netting.

THE PAGE WIRE FENCE CO. LIMITED

WALKERVILLE, ONT.

BRANCHES: MONTREAL TORONTO ST. JOHN WINNIPEG

"Page Fences Wear Best."

The Happy Farmer

"A glad heart brings the smile," and so it should. Those seeds from Rennie are hustlers. I can almost hear them grow. Get a seed book, it's free, and plant the best this season.

W^M RENNIE, Toronto.

BRANCH IN WINNIPEG

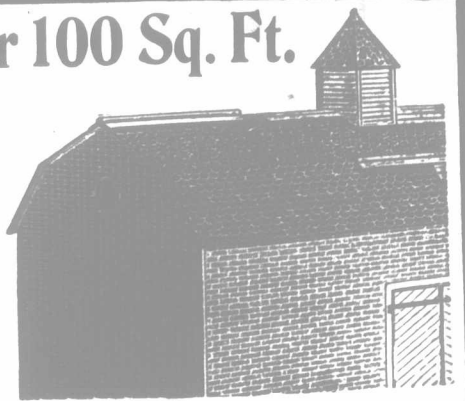
Steel Roofing and Siding, \$2.00 per 100 Sq. Ft.

Painted red on both sides. Most durable and economical covering for **Roofing or Siding, for Residences, Houses, Barns, Elevators, Stores, Churches, Poultry 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-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. 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 Trough, 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.

QUESTIONS AND ANSWERS. Miscellaneous.

TREATMENT OF CLEAN SEED POTATOES.

Would you advise me to soak clean potatoes in formalin to prevent scab, or do you think it would be better not to soak them? G. W.

Ans.—No.

ARE THERE ANY DUROC-JERSEY BREEDERS?

Where can I secure a Duroc-Jersey pig? E. V.

Ans.—If breeders of Duroc-Jersey swine are not taking advantage of the advertising columns of the "Farmer's Advocate," they should do so at once.

MIXING STRAW WITH CORN FOR ENSILAGE.

I am about building a silo this coming summer. Is it advisable to cut oat straw with the corn when putting it in, at half of each? GRENVILLE.

Ans.—No; nothing has proved superior, if equal, to well-matured corn with a fair share of ears for making good ensilage.

PIGS DYING.

My sow had a litter of thirteen, and all died but one; sow in fair condition and good to them. I fed her on ground oats and bran mixed, also a little milk; had plenty of milk for pigs. Pigs seemed to be doing well, but commenced dying at about from two to three weeks old. They would at first appear very dull and careless about feeding, and breathing was short, not unlike a horse after being hard driven. Many others have died with my neighbors. Do we feed our sows too well, or would some other feed be more suitable? J. N.

Ans.—This trouble is liable to occur in the case of early litters, where the sow and pigs are closely confined and do not get exercise. The pigs get too fat, causing what is known as fatty degeneration of the heart, or thumps. The heart fails to force the circulation of blood, the whole system becomes clogged, and death ensues. The secret of success in preventing the trouble lies in inducing, and, if necessary, enforcing exercise. This we know is difficult in cold weather, when the pigs cannot go out, and it can only be effected by giving them a run in the passages of the pen, switching them around or brushing them about with a broom, if need be. This, and getting them out on the ground on the sunny side of the building when practicable for an hour or two, is the only hope. The feeding does not appear to have been faulty, but if the pigs are getting very fat without exercise, there is danger ahead, and the dam's feed should be restricted.

Veterinary.

MUSCULAR ATONY AND NERVOUS IRRITABILITY.

The muscles of my horse's shoulders and elbows, and sometimes those of the neck, tremble, especially after drinking cold water or after exercise. H. M. D.

Ans.—This is due to want of muscular tone and irritability of the nerves, and will probably disappear when he is put to regular work. Give him regular but not excessive exercise, and gradually increase the amount of exercise day by day. Rub the muscles well three times with camphorated liniment, and give him 4 drams bromide of potash three times daily. V.

INDIGESTION.

Two-months-old calf has sunken eyes; will not drink, and is bloated and humped up. It has been getting separator milk and whole oats. A. W. M.

Ans.—This is indigestion, probably caused by the whole oats. Oats for calves should be finely chopped, and the hulls sifted out. Purge him with 4 ozs. raw linseed oil. If he will not drink, drench him with new milk, with about 1/2 of its bulk of lime water. If he will drink, give about that proportion of lime water in new milk. Give 20 grains each gentian, ginger and nuxvomica twice daily. V.

IT
MAKES
THE MOST
DOLLARS
FOR
YOU

It makes the most dollars for you, because it is the simplest in construction—has fewer parts—turns more easily—lasts longer—more easily cleaned—gives less trouble.

EMPIRE CREAM SEPARATOR

If you are interested in making the most dollars, write for our proofs.
EMPIRE CREAM SEPARATOR COMPANY, 28-30 WELLINGTON ST., WEST,
TORONTO, ONT.



Nine Nations

Now Use Liquozone. Won't You Try It—Free?

Millions of people, of nine different nations, are constant users of Liquozone. Some are using it to get well; some to keep well. Some to cure germ diseases; some as a tonic. No medicine was ever so widely employed. These users are everywhere; your neighbors and friends are among them. And half the people you meet—wherever you are—know some one whom Liquozone has cured.

If you need help, please ask some of these users what Liquozone does. Don't blindly take medicine for what medicine cannot do. Drugs never kill germs. For your own sake, ask about Liquozone; then let us buy you a full-size bottle to try.

We Paid \$100,000

For the American rights to Liquozone. We did this after testing the product for two years, through physicians and hospitals, after proving, in thousands of different cases, that Liquozone destroys the cause of any germ disease.

Liquozone has, for more than 20 years, been the constant subject of scientific and chemical research. It is not made by compounding drugs, nor with alcohol. Its virtues are derived solely from gas—largely oxygen gas—by a process requiring immense apparatus and 14 days' time. The result is a liquid that does what oxygen does. It is a nerve food and blood food—the most helpful thing in

the world to you. Its effects are exhilarating, vitalizing, purifying. Yet it is a germicide so certain that we publish on every bottle an offer of \$1,000 for a disease germ that it cannot kill. The reason is that germs are vegetables; and Liquozone—like an excess of oxygen—is deadly to vegetable matter.

There lies the great value of Liquozone. It is the only way known to kill germs in the body without killing the tissues too. Any drug that kills germs is a poison, and it cannot be taken internally. Every physician knows that medicine is almost helpless in any germ disease.

Germ Diseases.

These are the known germ diseases. All that medicine can do for these troubles is to help Nature overcome the germs, and such results are indirect and uncertain. Liquozone attacks the germs, wherever they are. And when the germs which cause a disease are destroyed, the disease must end, and forever. That is inevitable.

Asthma	Hay Fever—Influenza
Abscess—Anemia	Kidney Diseases
Bronchitis	La Grippe
Blood Poison	Leucorrhoea
Bright's Disease	Liver Troubles
Bowel Troubles	Malaria—Neuralgia
Coughs—Colds	Many Heart Troubles
Consumption	Piles—Pneumonia
Colic—Croup	Pleurisy—Quiasy
Constipation	Rheumatism
Catarrh—Cancer	Scrofula—Syphilis
Dysentery—Diarrhea	Skin Diseases
Dandruff—Dropsy	Stomach Troubles

Dyspepsia	Throat Troubles
Eczema—Erysipelas	Tuberculosis
Fevers—Gall Stones	Tumors—Ulcers
Goitre—Gout	Varicocele
Gonorrhoea—Gleet	Women's Diseases

All diseases that begin with fever—all inflammation—all catarrh—all contagious diseases—all the results of impure or poisoned blood.

In nervous debility Liquozone acts as a vitalizer, accomplishing what no drugs can do.

50c. Bottle Free.

If you need Liquozone, and have never tried it, please send us this coupon. We will then mail you an order on a local druggist for a full-size bottle, and we will pay the druggist ourselves for it. This is our free gift, made to convince you; to show you what Liquozone is, and what it can do. In justice to yourself, please accept it to-day, for it places you under no obligation whatever.

Liquozone costs 50c. and \$1.

OUT OUT THIS COUPON.

For this offer may not appear again. Fill out the blanks and mail it to The Liquozone Company, 458-464 Wabash Ave., Chicago.

My disease is.....
I have never tried Liquozone, but if you will supply me a 50c. bottle free I will take it.

.....
.....
.....
D 306
Give full address—write plainly.

Any physician or hospital not yet using Liquozone will be gladly supplied for a test.



You are
Judge & Jury

We present our case to you in all fairness. Our arguments are born out by facts. Our testimony is confirmed by unimpeachable witnesses. We know that Gin Pills cure all Kidney Troubles. We know that Gin Pills cured hundreds whom nothing else could relieve.

Canadians are our judge and jury. Such confidence have we in the strength of our case, that we make this sweeping offer:

Money Back if GIN PILLS Fail.

If you have sharp, shooting pains in the back and through the hips—if the hands and feet swell—if the urine is highly colored and offensive, scanty or too profuse—if you are compelled to get up during the night—if the stomach is bad, the bowels irregular, and the appetite poor—get GIN PILLS. They will cure the sick kidneys, take away the pain, make you eat and sleep, and build up the whole system.

Remember our guarantee: GIN PILLS CURE or your money back.
50c a box. At your druggist's, or from us direct.

THE BOLE DRUG CO., Dept. v, Winnipeg, Man.

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

GOSSIP.

Mr. D. A. Graham, Thedford, Ont., informs us that his poultry are this season better than ever, having many prize-winners, also a number of imported birds which should give the best results. He is prepared to fill all orders on short notice, and will endeavor to give all his customers good value for their money.

Mr. Jas. Douglas, Caledonia, Ont., writes: "I am sending a change of advertisement for next issue, as I have sold all the Berkshires I care to offer just at present; but have a very fine lot of young Shorthorns yet of both sexes, Scotch and Scotch-topped—good ones, and in good condition, and first-class families to select from, mostly all by imported sires and heifers bred to imported sires."

Colwill Bros., Newcastle, Ont., write: "We have recently sold to Mr. W. Warren Morton, Russellville, Ky., U. S. A., king of Tamworth swine breeders in that sunny country, ten head of as fine Tamworths as ever crossed the line, some of which we were very loath to part with, but the tempting price was the inducement. One was Colwill's Beauty, farrowed March, 1904, sired by our famous old stock hog, Colwill's Choice 1343, and out of the beautiful show sow, Newcastle Minnie, sired by Imp. Whitacre Bruce. This sow was one of a group of four which won the first prize for four pigs under six months, the get of one sire, and likewise first for four pigs, the produce of one sow, at Toronto. She has been bred to Glenholm Edward 3350, also a Toronto prizewinner, a hog of great length and heavy bone. As Mr. Morton is a man of great enterprise, we predict a future of great success for him. Every pig he purchased from us was of the up-to-date bacon type, and no Canadian could have shown better judgment in selecting them. As we are sold out of all sows over eight months old, kindly drop that part of our advertisement. We, however, wish to especially draw the attention of your readers to a few beautiful boars we have to offer, ranging from seven to twelve months old. These are right good ones, and are ready for service. They would do credit at the head of any herd, and will be sold at moderate prices."

Hillhurst Shorthorns are well known by all the principal breeders in Canada today. The herd was established many years ago by the late Hon. M. H. Cochrane, with individuals of the choicest breeding, paying some of the largest figures, if not the largest, ever paid by a Canadian in Great Britain. The herd is now controlled by Mr. Jas. A. Cochrane, who will esteem it a pleasure to answer enquiries in reference to the herd, or to show the animals to visitors. There are at present in the herd 9 young bulls, 7 of which are ready for service, all reds, except one, and good enough to use upon the best cows of the breed or in the best herds. Among them is Mountaineer 51949, twenty months old, by Lord Mount Stephen (imp.), a sire that has gone to the U. S. at a big price for a show and stock bull, dam Imp. Alpine Beauty 2nd 31164. This is a growthy, stylish bull. Lord Mount Royal 51947, by the same sire as above, is a deep, low-down bull, from Imp. Doris 3rd. Welcome Morning 51950, eighteen months old, by Frosty Morning 44973, a first-prize winner at Sherbrooke, Que., by Joy of Morning (imp.), dam Welcome Hillhurst (imp.), is one of more scale than the average bull, being both lengthy and deep. Beaumont 54822, sixteen months old, is a dark roan, by Scottish Benu (imp.) 36099, dam Royal Beatrice 20536. The other bulls on hand are equally well bred, just as good individuals, and are a thick-fleshed, low-set lot. Mr. Cochrane will sell them at a bargain, if taken soon. He can also supply some fine cows and heifers to anyone in search of such. The farm is located about 14 miles from Hillhurst Station and post office, and about 2 miles from Compton Village, Que., 115 miles east of Montreal, on the G. T. R. If Mr. Cochrane can get enough first-class Shorthorns consigned to make an attractive offering, he intends to hold a public sale at Hamilton, Ont., on August 2nd. If not, he will have to cancel the date. If the sale goes on, there will be upwards of 25 head of the best in this herd sold by auction at that time.

FARM BOOKS.

The farmer's home without an Agricultural Library is lacking in one of the chief aids to pleasure and success. We have gone over first-class works on agricultural subjects, and selected the best. See below for prices and how to obtain them.

LIVE STOCK.
 Veterinary Elements.—A. G. Hopkins, B. Agr., D. V. M. \$1.50. A practical farm live-stock doctor book.
 The Study of Breeds (Cattle, Sheep and Swine).—Prof. Shaw. 400 pages, 60 engravings. \$1.50.
 Horse Breeding.—Sanders 422 pages. \$1.50.
 Horse Breaking.—Capt. Hayes. \$5.00. Far and away the best on this subject.—[The Field].
 Points of the Horse (3rd edition).—Capt. Hayes. \$10.00.
 Light Horses—Breeds and Management. (Vinton series.) 226 pages. \$1.00.
 Heavy Horses—Breeds and Management. (Vinton series.) 219 pages. \$1.00.
 Cattle—Breeds and Management. (Vinton series.) 270 pages. \$1.00.
 Sheep—Breeds and Management. (Vinton series.) 282 pages. \$1.00.
 Pigs—Breeds and Management.—Sanders Spencer. 175 pages. \$1.00.

Feeds and Feeding.—Henry. 600 pages. \$2.00.
 Live-Stock Almanac. Handsomely bound. 75 cents. Paper cover, 40 cents.
 Live-Stock Judging.—Craig. \$2.00. The only work on this subject.

GENERAL AGRICULTURE.
 Agriculture.—C. C. James. 200 pages. 30 cents.
 Chemistry of the Farm.—Warrington. 183 pages. \$1.00.
 Farmyard Manure.—Aikman. 65 pages. 50 cents.
 Successful Farming.—Rennie. 300 pages. \$1.50, postpaid.
 Agricultural Botany.—Perceval. \$2.00. A very useful book for student farmers.
 Soiling Crops and the Silo.—Shaw. 366 pages. \$1.50.
 Fertility of the Land.—Roberts. 415 pages. \$1.00.
 Physics of Agriculture.—King. 604 pages. \$1.75.

DAIRYING.
 Milk and Its Products.—Wing. 230 pages. \$1.00.
 Testing Milk and Its Products.—Farrington & Wolf. 255 pages. \$1.00.
 Canadian Dairying.—Dean. 200 pages. \$1.00.
 Cheesemaking.—Decker. 192 pages. \$1.75.

POULTRY.
 Poultry Craft.—Robinson. \$2.00.
 Farm Poultry.—Watson. 241 pages. \$1.25.

APIARY.
 The Honeybee.—Langstroth. 531 pages. \$1.50.

FRUIT, FLOWERS and VEGETABLES.
 Vegetable Gardening.—Green. 224 pages. \$1.25.
 Flowers and How to Grow Them.—Reverford. 175 pages. 50 cents.

Amateur Fruit-growing.—Samuel B. Green. 6x7 inches; 154 pages, with numerous fly-leaves for notes; bound in cloth, and illustrated. 50 cents.

PLANT AND ANIMAL LIFE.
 The Story of the Plants.—Grant Allen. 215 pages. 40 cents.
 The Study of Animal Life.—J. A. Thomson. 375 pages. \$1.75.
 Insects Injurious to Fruits.—Saunders. 68 pages. \$2.00.

MISCELLANEOUS.
 Landscape Gardening.—S. T. Maynard. 225 pages. \$1.50.
 Birds that Hunt and Are Hunted.—Nette Blanchard. 300 pages. \$2.25.
 Carpenters' and Joiners' Handbook. 75 cents.
 American Tanager.—Briggs. 25 cents.
 Taxidermy.—Hastock. 50 cents.

HOW TO OBTAIN THESE BOOKS.—We will furnish present subscribers any of the above books for cash or as a premium to those obtaining new yearly subscribers to the "Farmer's Advocate" according to the following scale:

- Books valued at 50c. and under for 1 new subscriber.
- Books valued over \$1.00 and up to \$1.50 for 3 new subscribers.
- Books valued over \$1.50 and up to \$2.50 for 5 new subscribers.
- Books valued at \$4.00, 8 new subscribers.
- Books valued over 50c. and up to \$1.00 for 2 new subscribers.
- Books valued over \$1.50 and up to \$2.00 for 4 new subscribers.
- Books valued at \$2.75 for 6 new subscribers.
- Books valued at \$5.00 for 12 new subscribers.

We can furnish above books at regular retail price, which is given opposite title of book. By studying above list, any farmer can choose a select list of books suited to his needs, and for a small outlay in cash, or effort in obtaining new subscribers for the "Farmer's Advocate," secure the nucleus of a useful library.

THE WM. WELD CO., LIMITED, London, Ontario.

THE WAY TO HEALTH



SEND THIS COUPON AND GET IT FREE



The little coupon which is appended to the bottom of this advertisement, mailed to me, will bring you a book which has opened the eyes of thousands of suffering men and women to the newest, easiest and cheapest way to health and vigor. It is yours, sent by mail, free, if you will send this coupon.

DR. McLAUGHLIN'S ELECTRIC BELT

WITH FREE ELECTRIC SUSPENSORY FOR WEAK MEN

Pours new life into weak, debilitated men, builds up nerve and vital forces, cures Varicocoele, Nervous Debility, Rheumatism, Back Pains, Weak Kidneys, Stomach, and revives the spark of youthful energy, giving back the old, vigorous animation. It makes strong, husky and vigorous specimens of manhood. (It is just as good for women as for men.)

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 at hand a certain cure for his weakness, a check to his waste of power.

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 for 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 (free), will restore your power, and will give back the old vigor of youth. I know how skeptical people are after paying out hundreds of dollars without getting any benefit, and know that many would pay after they were cured. To those I say, set aside those prejudices, give me evidence of your honesty by offering me reasonable security for the Belt. I will arrange it with necessary attachments suitable for your case, express it to you, and you can

Wear it Until Cured and Pay Me When the Work is Done.

Use My Belt and Be Strong.

My Belt is easy to use; put it on when you go to bed; you feel the glowing heat from it (no sting or burn, as in old style belts) and you feel the nerves tingle with the new life flowing into them. You get up in the morning feeling like a two-year-old.

Cured By My Belt, and Has Laid It Aside.

LONDONBORO, Ont., Jan. 11, 1905.

DR. McLAUGHLIN: Dear Sir,—I write you to let you know that your Belt helped me wonderfully. I am well satisfied. I feel well, and can work without being fatigued and done out like I used to be. I quit wearing the Belt in the early part of the summer, as I do not need it, while I feel as I do now, nor have any desire to unless my trouble should come back on me, which I don't think can possibly occur. Yours very truly,
 JOSEPH C. CARTER.

This drain upon your power causes all kinds of debility and Stomach Ailments. You know it's a loss of vital power and affects every organ of the body.

Every man who uses my Belt gets the advice and counsel of a physician free. I give you all that any medical man can give, and a lot that he can't. Try my Belt. If you can't call, write me to-day for my beautiful illustrated book with cuts showing how my Belt is applied and lots of good reading for men who want to be "The Noblest Work of God"—A MAN. Inclose this coupon and I will send this book, sealed, free.

Cut This Out and Send It To-day!

DR. M. S. McLAUGHLIN,
 130 Yonge Street, Toronto, Can.

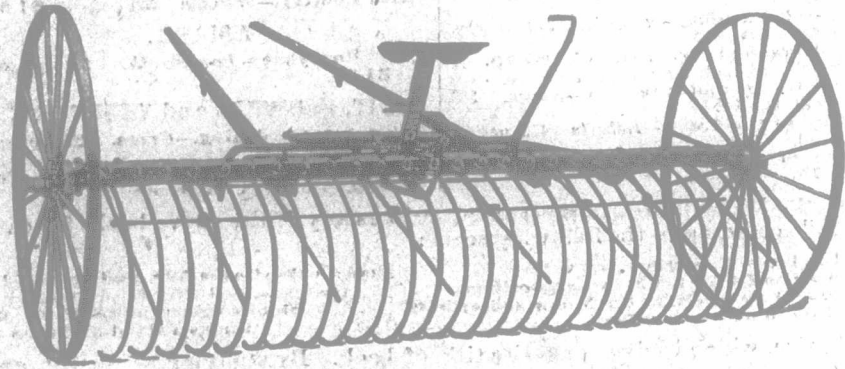
Please send me your book for men (or women), sealed, free.

Name

Address

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

DEERING



Deering Ideal Self-Dump Hay Rake

Deering Ideal Hay Rakes are constructed almost entirely of the best steel, hot-riveted together instead of bolted, so that there are practically no bolts to watch, and no chance of the rake getting out of repair at critical times. The rake wheels are interchangeable and provided with removable sleeves which can be easily replaced. A strong feature of Ideal hay rakes is the fact that if the pawls which engage the ratchets in the wheels become worn, it is possible to exchange dump rods and present new wearing surfaces, as the rods are of the same length and shape. You see that the life of the rake may be thus considerably lengthened.

ASK THE FARMERS YOU MEET WHY THEY USE THESE RAKES IN PREFERENCE TO ALL OTHERS

HAY RAKES

MADE IN CANADA

McCormick Self-Dump Rake

This rake is superbly constructed and is in general use throughout the world. Specially selected oil-tempered steel is used in the manufacture of the teeth, the points of which are so shaped that they get all the hay without digging into the ground or picking up stones. The McCormick hay-rake head is made very strong, the steel angle bar being reinforced by a truss rod which extends nearly the entire length of the rake head, thus giving it the strength of an arch. The wheels will withstand the rough usage encountered in raking over any ground.

International Harvester Company of America

General Offices, Chicago, U. S. A.

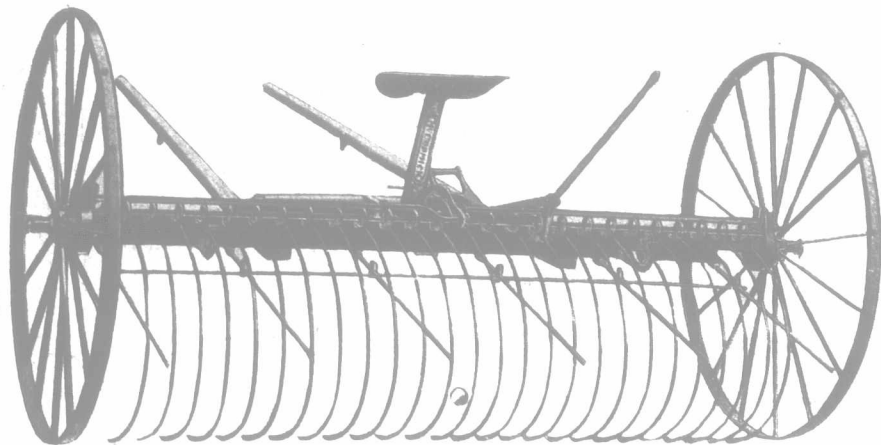
CANADIAN BRANCHES:

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McCORMICK

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