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THE FARMER'S ADVOCATE

AND HOME



MAGAZINE

Census and Statistics
Dept. of Agriculture
Dec 31, 09

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

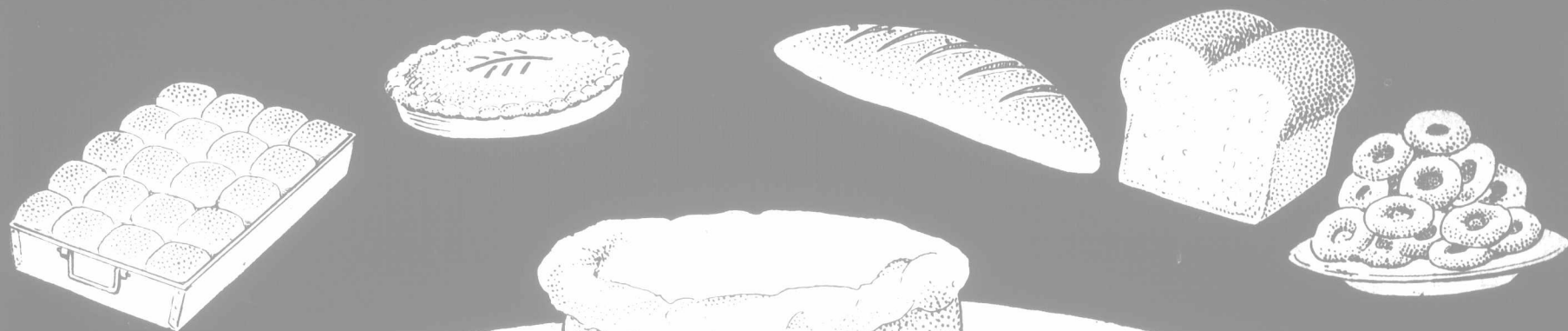
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Vol. XLV.

LONDON, ONTARIO, FEBRUARY 24, 1910.

No. 909

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bread, pies,
cakes, biscuits,
everything

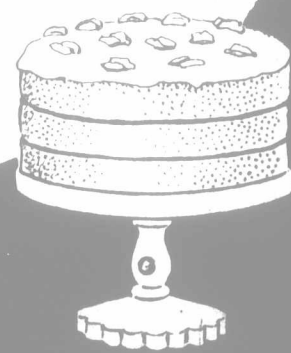


It's the
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all-purpose
brand

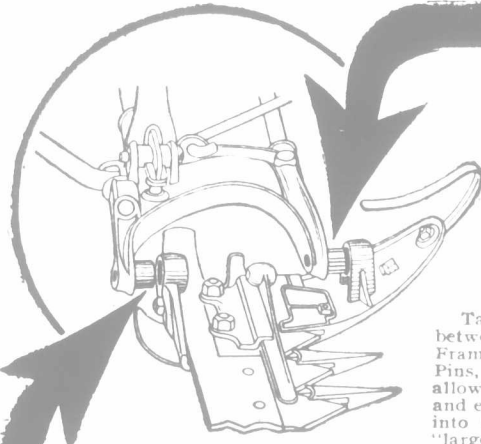
Western Canada
Flour Mills Co.,
Limited.



18



MORE BREAD AND BETTER BREAD



A Strong, Stay-Tight Connection Where Other Mowers are Weak

Seventy years' experience, plus a disposition to use the very best materials when it might seem more profitable to cheapen things, is why Frost & Wood Implements excel from the "Quality" standpoint.

Take, for instance, the connection between the Cutter Bar and Main Frame of a Mower. Others use Small Pins, that wear quickly, thereby allowing connection to work loose, and eventually "bang" the machine into a blacksmith shop. We use "large" Bearings for our "stay-tight" connection (see illustration). They

fit accurately and there is no opportunity for wear, because Cutter Bar has no chance to work loose from Main Frame. No time lost on the field—no bills to foot.

Another example of Frost & Wood "Quality" is the Pitman Connection of Forged Steel and "the Ball and Socket Joint"—strongest, firmest connection on the market.

Roller Bearings, with heavy boxes to maintain them in perfect position, make the No. 8 run easier than others. Every connection is neat and accurate. The "Internal Gear" cuts out the necessity of a "flying start"—knives commence cutting with first forward step of horses.

The No. 8 Mower is built in both Standard and Vertical Lift Styles.

THE FROST & WOOD CO., Limited
Smith's Falls, Canada



Ask for Book F49

FROST & WOOD No. 8 MOWER

DO YOU KNOW

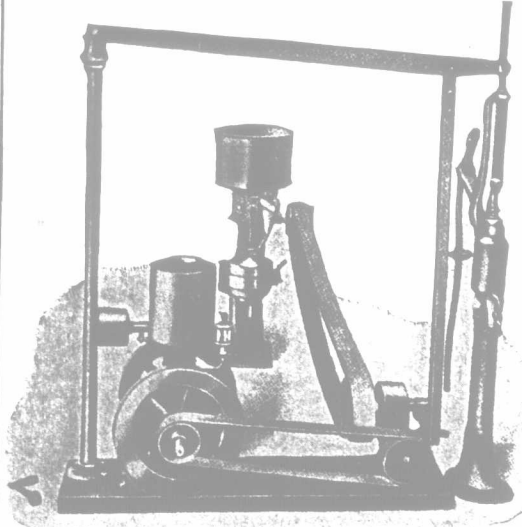
THAT WORN-OUT LANDS MAY BE MADE PRODUCTIVE AND PROFITABLE BY THE JUDICIOUS USE OF THE RIGHT KIND OF FERTILIZER?

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

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1 1/2 TO 40 HORSE-POWER.



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

Send for catalogue.

GOOLD, SHAPLEY & MUIR CO., LIMITED,
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Synopsis of Canadian North-west Land Regulations.

ANY person who is the sole head of a family, or any male over 18 years old, may homestead a quarter-section of available Dominion land in Manitoba, Saskatchewan, or Alberta. The applicant must appear in person at the Dominion Lands Agency or Sub-Agency for the district. Entry by proxy may be made at any agency, on certain conditions, by father, mother, son, daughter, brother or sister of intending homesteader.

Duties—Six months' residence upon and cultivation of the land in each of three years. A homesteader may live within nine miles of his homestead on a farm of at least 80 acres, solely owned and occupied by him, or by his father, mother, son, daughter, brother or sister.

In certain districts a homesteader in good standing, may pre-empt a quarter-section alongside his homestead. Price, \$3.00 per acre. Duties—Must reside six months in each of six years from date of homestead entry (including the time required to earn homestead patent) and cultivate fifty acres extra.

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W. W. CORY,

Deputy of the Minister of the Interior.

N.B.—Unauthorized publication of this advertisement will not be paid for.

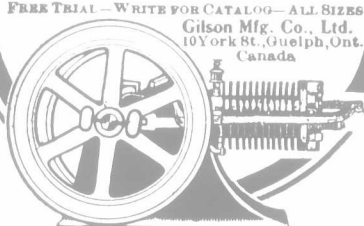
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Sells like Sixty
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A perfect engine for pumping, grinding, sawing wood, corn shelling, churning, washing machines and all farming purposes. Larger sizes for feed cutting, threshing, silo filling, and all heavy farm work.

GILSON GAS AND GASOLINE ENGINE

FREE TRIAL—WRITE FOR CATALOGUE—ALL SIZES
Gilson Mfg. Co., Ltd.
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WANT BIG CROPS FOR 1910?

Now is the time! Get ready for Harvest—Write at once for

MCDONALD'S SEED CATALOGUE
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Contains valuable information for every Farmer and Market Gardener.

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EUREKA Glass Tank Sprayer



Solution tank is a quart Crown glass jar. If broken, it can be easily replaced for a few cents. Solution tubes are brass. None of the liquid used can be drawn back into the pump chamber, thus the chamber and valves are uninfused.

This is the easiest operated and the most effective small sprayer on the market. Inquire of your hardware dealer.

Write for our complete catalogue of Sprayers and Garden Tools.
THE EUREKA PLANTER CO. LIMITED
Woodstock - Ont., 6

ONTARIO FARMS

THE CENTRAL MACHINERY CO. OF CANADA
1000 BRILLING & CO. DRILLING & REAMING MACHINES
1000 BRILLING & CO. DRILLING & REAMING MACHINES
THE CENTRAL MACHINERY CO. OF CANADA

This Fence Stands Every Test

Hard drawn steel running wires and "The Tie That Binds", give a strength that resists every strain.

Heavy galvanizing protects against rust. Patent Posts are made of No. 12 gauge steel, bent at right angle, to give the maximum strength at reasonable cost. No staples required to put fence on posts—we've attended to that.

STANDARD WOVEN WIRE FENCE

The Standard Wire Fence Co. of Woodstock Limited, Woodstock, Ont. & Brandon, Man.

Build Concrete Silos

Any size with the London Adjustable Silo Curbs. Send for Catalogue. We manufacture a complete line of Concrete Machinery. Tell us your requirements.

London Concrete Machinery Co., Ltd., 19 Marmora Street, London, Ontario.
Largest manufacturers of Concrete Machinery in Canada.

Corn that Will Grow

Canadian-grown seed corn. Your money back if not satisfied.

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Seed Grain

Improved Ligowa Oats from the 5th year hand-selected seed. Also Mandscheuri barley. All seed well cleaned and graded.

Wm. Barnett & Sons, Living Springs P. O. Ont. Fergus station, C. P. R. and G. T. R.

When Writing Mention This Paper.

Leader fence

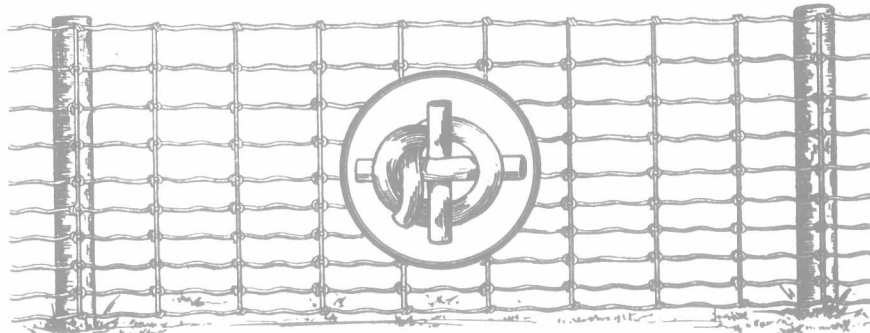
This is the fence with the double-grip No. 9 Lock

Write us for a sample of the LEADER lock. Then notice how the ends curve in such a manner that the lock practically interlocks itself.

This interlocking feature gives the LEADER lock a double grip. It ties the laterals and stays together twice as securely as the ordinary fence lock does.

It is impossible to spring the ends of the LEADER

lock. That means that the LEADER fence will always stand up stiffly erect, and maintain its handsome, well-stretched appearance.



Besides, there are no small wires and no soft wires in LEADER fence. It is a BIG wire fence throughout. Laterals, stays and locks are all No. 9 hard steel wire. It is built to last, is the LEADER.

The galvanizing is extra heavy and smooth. Compare it with ordinary galvanized wire and you'll see the difference. Moisture does not affect the

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But we want you to learn full particulars about LEADER fence. So send for our booklet. It will interest you greatly.

Agents Desired

And if you would like to act as our agent in an unrepresented district, ask for our agency proposition, which includes a complete line of farm and ornamental fence and gates. For those who will order in carload lots we've a special proposition, which includes sending an expert salesman to help close orders, and show how to erect LEADER fence properly. Write us to-day and get further particulars.

Frame & Hay Fence Company, Limited,

Stratford, Ontario

POTASH MEANS PROFIT

Test the truth of this statement by using Potash this year in conjunction with a Phosphatic and Nitrogenous Fertilizer.

Potash is an Absolutely Essential Plant Food, and may be obtained from all leading Fertilizer Dealers and Seedsmen in the highly concentrated forms of

MURIATE OF POTASH AND SULPHATE OF POTASH

Potash promotes maturity, and insures high-class quality of all Farm, Orchard and Garden Crops.

Write us for full particulars and FREE copies of our bulletins, including "Fertilizers: Their Nature and Use"; "Fertilizing Orchard and Garden"; "The Potato Crop in Canada"; "The Farmer's Companion," etc., etc.

Dominion Agricultural Offices of the Potash Syndicate
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Lime Sulphur Solution

shows on analysis a higher percentage of active sulphur in solution than other brands or the home-boiled article. It is therefore more certain to thoroughly destroy all parasites and fungi, including the San José Scale.

VANCO is a clean solution—free from useless sediment—all good. One barrel makes 12 for winter or 50 for summer spray.

\$8.00 per bbl. f.o.b. Toronto.

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kills 95% of codling moths where Paris Green at its best will not kill over 75%. It is a sure destroyer of all leaf-eating insects. Easy to spray as it settles slowly and does not clog the nozzle.

Sticks much better than Paris Green. Never burns or injures the foliage.

The majority of experts and authorities throughout Canada and the United States have adopted Lead Arsenate.

10c. to 13c. per lb. according to quantity.

Club Your Orders and Save on Freights.

There's much valuable information in our Booklet on Lime Sulphur Solution and Lead Arsenate. Write for it—it is free.

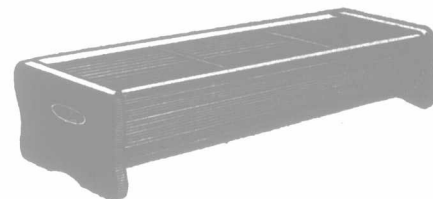
CHEMICAL LABORATORIES LIMITED,

MANUFACTURERS OF CHEMICALS

148-158 Van Horne St., - - Toronto, Canada. 6

Pay for this STEEL WATER TROUGH after you've proven its quality

We feel sure you will be eager to replace those old, half-gnawed, unsanitary wooden water troughs with our **STEEL WATER TROUGHS** once you've seen them. So we ask the privilege of sending one of our **STEEL TROUGHS** to you entirely at our expense. Examine it carefully.



Notice that the body is of heavy galvanized steel plate, imported from England. Test the enormous strength of the steel head. It's practically indestructible. Our troughs are proof against frost. They cannot rust or leak. The most sanitary and everlasting water troughs you can buy. Just send us your name and address and tell us to send you the trough. Booklet giving complete description mailed free if you ask Dept. W.

THE STEEL TROUGH & MACHINE COMPANY, LTD.
TWEED, ONTARIO.

Did You Ever Get Anything for Nothing? No.

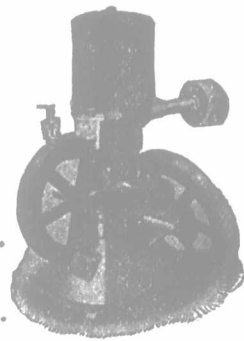
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GAS OR GASOLINE ENGINES—1½ to 5 H.-P.

Satisfaction guaranteed.

SCOTT MACHINE CO., LTD., LONDON, CANADA.

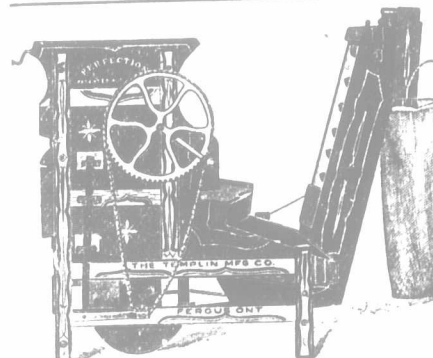


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PERFECTION Seed and Grain Separator

You want something better than the old fanning mill. You can test a Perfection—the mill that is different from all others—and prove its superiority for yourself. It cleans and grades all kinds of grain, and cannot be excelled for cleaning clovers. The grain travels double the distance over our screens than it does over others, on account of our patented device. A child can turn it. The Perfection has so many points of superiority that we cannot mention them here. The principle of its construction is described in our circular "C," which may be had by addressing:

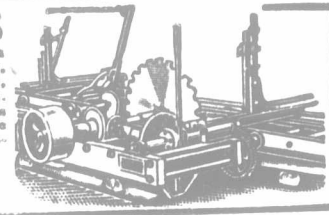
THE TEMPLIN MFG. CO.,
Fergus, Ont. G. T. R.



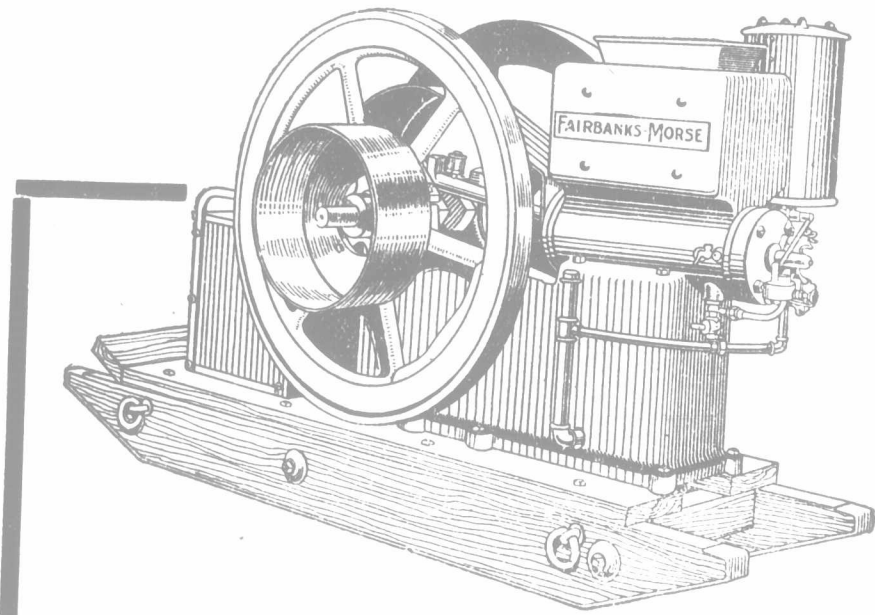
AMERICAN SAW MILLS

Make most money because they do best work in quickest time with least power and smallest crews, owing to their simple construction and improved, patented devices. Portable and stationary. All sizes. Variable Friction Feed, Combined Ratchet Networks and Quick Reeder and other superior features. Free Catalog and Prices will interest you. Lists our complete line of wood working machinery.

American Saw Mill Machinery Co.
113 Hope St., Hackettstown, N. J.
166 Terminal Buildings, New York



There's Money In Lumber



FAIRBANKS-MORSE

Improved Skidded and Portable Evaporator Tank

GASOLINE ENGINES

These engines are built along the same lines as our Fairbanks-Morse Standard Horizontal Engines, with the exception that our improved Cast Iron Evaporator Tank is cast on top of cylinder, as shown in illustration.

No cooling tank is required, thus overcoming the difficulty of carrying the usual great volume of water. The lubrication difficulties of Air-cooled Engines are overcome in the above, there is very little water in the tank to take off by drain in the cold weather, thus saving time and trouble, and there is no water pump to freeze up. We provide a shield to prevent water slashing out of the Hopper Jacket.

The skidded engine is a very desirable outfit where it is necessary to move the engine, providing a means whereby the engine can be drawn about on its iron-shod runners, or can be placed on a farm truck or a bob-sled.

The engine itself is Fairbanks-Morse in every respect, and ensures to the customers the best there is in Gasoline Engine construction.

Send for our FREE CATALOGUE G E 102, showing our full line of Fairbanks-Morse Vertical and Horizontal Gasoline Engines and Machinery for farm work. It means money saved for you. Write to-day.

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The DE LAVAL Cream Separator

You get the money's worth.

The De Laval Separator Co.

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AGENTS EVERYWHERE

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THE MOST SATISFACTORY ORGANS

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you secure one with the charming tone of a pipe organ, and at a price that will please you. Buy a Bell and get the best made. We are the only makers of the patent Pipe Tone Reed Cells. Send for free catalogue No. 40.

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Largest makers of Pianos, Organs and Playerpianos in Canada.

3 1/2 %

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You would accept a higher salary if it were offered to you, so why not accept our offer to pay you 3 1/2% interest on your savings instead of usual 3%? Our \$2,000,000 assets is your Security.

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We teach you at home by mail for the good paying profession of Electric Motorman or Conductor with a few weeks study in your spare time. The work is steady the year round, the wages high and there are

Hundreds of Positions Open right now waiting for our graduates. This school is endorsed by Electric Railway Managers all over the country. If you want a good paying position with a bright future, write today for new Free Catalog and full information. The Wenthe Cor. School, Gen'l., Office 349 Freeport, Ill.

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Fire or lightning are no menace to the safety of a structure protected by the new "Galt" Steel Shingles and Galt "Art" Sidings.

The "Galt" is not the first shingle—but it's the first perfect shingle. Why shouldn't it be—haven't we the weaknesses of all others to warn us?

The fiercest gale can't drive rain or snow through the Gale-proof, Closed-end, Side-locks, or the continuous overlapping and interlocking bottom lock of the "Galt" Shingles.

Covered nailing flanges both top and sides—no wind can loosen them. No openings or cleats. Easiest and quickest to lay. Handsome Bold Gothic Tile patterns—fit for a palace. Best British Galvanized Steel Sheets—Guaranteed to last a life time. Ask for Catalog "B-3"—it tells all about them.

THE GALT ART METAL CO., LIMITED, GALT, ONT.
Sales and Distributing Agents: Dunn Bros., Winnipeg and Regina.

"Galt" Shingles

FENCE FOR SALE

4,000 Rods 4 bar 40 inch No. 9 Fence stays 22 inches apart. In lots to suit, in 40-rod rolls. PRICE 23c PER ROD. Freight paid east of Fort William. This fence was made up for a foreign customer, who failed just before shipment was made. Also, some bargains in small lots of 7-Bar, 8-Bar and 10-Bar Fences. Particulars on request. THE EMPIRE FENCE EXPORT COMPANY, LTD., Walkerville, Ont. Good dealers desired in Unoccupied Canadian territory.

ELECTRO BALM CURES

ECZEMA

Also Piles, Burns, Scalds, Sores, Chapped Hands and Face. Write for sample and booklet of testimonials. 50c. a box at all dealers, or THE ELECTRIC BEAN CHEMICAL CO. LIMITED, OMAHA.

CENTRAL Business College

STRATFORD, ONT. A Commercial school of the highest grade. A school without a superior in the Dominion. Catalogue free. ELLIOTT & McLACHLAN, PRINCIPALS.

STONE AND STUMP PULLERS

Can raise, carry stones, and easily put them into wall four and a half feet high. Also

NEW PATENT SNOW PLOW, so constructed as to be able to dig roads when necessary, and to plow and sink them when snow is melting. For full particulars write: A. LEMIRE, WOTTON, QUEBEC.

The Farmer's Advocate and Home Magazine

"Persevere and
Succeed."

Established
1866

Vol. XLV.

LONDON, ONTARIO, FEBRUARY 24, 1910

No. 909

EDITORIAL.

The rabies regulations are not only necessary in the interest of human safety and property protection, but are a kindness to the dogs themselves. Until the disease is stamped out, no dog is safe from infection.

Fight germs with germs. The lactic-acid bacteria in a specially-prepared diet of sour milk are claimed to be deadly foes of the putrefactive and disease-producing bacteria which swarm in the large intestine. For those to whom sour milk is distasteful, the lactic-acid bacteria are put up in tablet form.

The move to establish a Canadian pedigree register for Standard-bred Horses, in connection with the National Live-stock Records, has got the length of devising rules of entry, which have been approved. It has been no easy task. Particulars of the rules appeared on our Farm Bulletin page last week.

To prevent or regulate the organization of oppressive combines in highly-protected countries is like trying to keep a fallow field free of weed-growth—only a much more vast undertaking. The way to control trusts is to take down the protective tariffs which give them leverage to oppress consumers.

If the Canadian Seed-growers' Association could demonstrate conclusively in co-operative experiments throughout the country the superior yielding power or disease-resisting character of seed selected for several generations, as compared with common seed of grain, potatoes and other crops, it would do more to popularize the movement than holding half a dozen annual conventions.

The Georgian Bay Canal must be built at the earliest date financial prudence will allow, and it must be a Government enterprise. Corporation control would be a colossal blunder—selling a birthright for a mess of pottage, or, more probably, giving it away outright. Free canals, under public control, are required, not only for the sake of their own part in the scheme of transportation, but as automatic competitive regulators of rail-freight rates.

Lord Rayleigh, a well-known scientist, has had a profit-sharing scheme on his Essex farm, England, for some years, and it has proved a success. The sum distributed for 1909 was £1,000. There are 280 employees, and this gives £14 per head. The system has shown that the men take a strong personal interest in farming operations when they have a direct incentive. The financial result to Lord Rayleigh has been satisfactory, and a good percentage has been realized on the invested capital.

A corn crop offers a great field for work, was a remark made by President J. O. Duke, before the corn-growers of Essex recently. He told a story of a man who, when he came to cultivate a field of corn, got up on the fence and began to calculate how many miles he would have to walk before the job was completed for the season. He figured it out to be 1,000 miles, which so scared him that he thought he had better try something else. He forsook his fields and went to town, where he walked 2,000 miles before he got a job. A man can find a profitable job any day in a corn field. We should not wait for weeds to show before we start the cultivator.

To conserve the lives and improve the homes of the people bred in Canada, is a more statesmanlike policy than fixing up undesirables from abroad.

Correspondence submitted, and assurances personally heard by members of our staff, indicate that keen interest has been taken in the results of "The Farmer's Advocate" demonstration orchard. We have already heard of half a dozen men who have been led through it to undertake spraying this coming season, and no doubt there are hundreds of others influenced. Prune, fertilize, spray, thin, cultivate, sow cover crops, pick and pack carefully. Be thorough, and the results will surprise you.

In his closing observations to the Canadian Seed-growers' Association, at Ottawa, Dr. Jas. W. Robertson, president, asked the members to co-operate with the Canadian Conservation Commission, by furnishing information that would be sought looking toward the improvement of Canadian agriculture, through preserving and developing natural resources and rural home-life. It was intimated that the Commissioners, who had voluntarily devoted themselves to this great work, are doing so without salary or monetary compensation.

Sow grain thin and clover thick. A thin seeding of grain will produce a moderate yield, while giving the clover a better chance to catch. A first-class catch of clover is of more importance to almost any farmer than a first-class crop of grain. The clover is produced at no expense, except for seed and harvesting. It is, therefore, profitable in itself; while, in addition, by way of clear bonus, so to speak, its growth and the decay of its roots and stubble are of benefit to the land, equal, at least, to eight or ten tons of farmyard manure per acre.

With practically free raw material, with the privilege, even, of importing partially-manufactured goods free of duty, and with a liberal tariff protection on their finished product, Canadian woollen manufacturers would seem to be favored with more than their full share of adventitious aid. If that is not enough, they had better shut up shop, and rid the country of an exotic industry. We believe, however, that if as much enterprise and study were devoted to the development of the business as to the seek for tariff aid, it might succeed, after all. The hopeful note sounded by the proprietors of a certain woollen mill in Amherst, recently visited by a member of the Dominion Sheep-breeders' special committee, would seem to bear out this view.

Penny-wise and pound-foolish is the policy of harvesting grain or hay crops from bearing orchards. Subtract from the crop thus obtained the value of the labor and seed required to produce it, saying nothing of the inconvenience thereof, and one does well if he has left \$10 profit per acre. Now, this is on land which has been devoted for ten or twenty years to the purpose of growing an orchard. The orchard is potentially valuable, capable of yielding an annual clear profit of anywhere from fifty to, say, a hundred and fifty dollars an acre. It needs all the plant food and moisture with which it can be supplied. In attempting to grow another crop, we are liable, for the sake of a net return of ten dollars in grain or hay, to sacrifice twenty to fifty dollars in the yield and quality of the fruit. It will take a new arithmetic to convince us that such a policy pays.

The concluding part of the agricultural statistics for last year, published by the British Board of Agriculture, has a review of international agriculture. Dealing with wheat, the report suggests that the world's wheat area is sufficient in normal harvests. During the last fifteen years 45,000,000 acres have been added to the wheat area of the world, making it not far short of 240,000,000 acres. The increase of population in the same time has been 101,000,000. In practically all countries, in live-stock matters, the tendency has been to keep more cattle and pigs, and fewer sheep.

During the recent British election, Irish agricultural interests were somewhat perturbed by a rumor that the Liberal party, if returned to power, would, in April, 1910, remove the embargo upon live stock from Argentina at present in operation at British ports, admitting cattle from that quarter for immediate slaughter, on the same basis as Canadian and United States stock now are. At present, South American stock is allowed into the country only as dead meat, which is not nearly so formidable competition to British and Canadian beef as fresh-killed Argentina beef would be. Confirmation of such intention on the part of the Asquith Government has not yet reached us as we write. Let us hope the rumor had no substantial basis in fact.

The Minister of Agriculture for Ontario, Hon. J. S. Duff, voiced the sentiment of the majority of people, probably, when he said to the Fairs and Exhibitions Association that consolidation of agricultural societies for show purposes is desirable. Some years ago, when the basis on which the amount of grant by Government was changed from that of number of paid-up members to the amount spent for agricultural purposes, it was believed and hoped that it would result in a weeding-out of the poorer and weaker societies. But the primal instinct of self-preservation appears as strong in agricultural societies as in individuals. They die hard. Two years ago, 361 active societies were reported; at this year's meeting, 350. At this rate, extinction of two-thirds of the existing societies would require forty-two years.

Two thousand dollars a year seems quite a princely salary to the average person on the farm who has never paid the bills in a city home. As a matter of fact, it leaves the professional or business man in the city, with a family to support, not such a very handsome surplus, unless he owns his house or has supplementary income. Two hundred and fifty to four hundred dollars a year for rent, water rates and income tax; forty to eighty dollars for fuel; two-fifty to three-fifty a year to run the table; two or three hundred for clothes, and as much more for miscellaneous expenditures, with a hundred or two, set aside for charity or the church, will purchase no more luxurious a living than many a farmer enjoys without realizing how well he is off. On the farm one has no house rent, no monthly water rates, in some cases no fuel to buy, much less outlay for the table, less expensive clothes for ordinary wear, and a general reduction in miscellaneous expenditure, which represents, in the aggregate, a large margin of saving. To be sure, many mechanics and other city residents (whose expenses are somewhat less than the professional man's) live on far less than the above figures, but they do it usually by dint of rather severe economy, denying themselves many things in which they are continually tempted to indulge.

THE FARMER'S ADVOCATE AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN THE
DOMINION.

PUBLISHED WEEKLY BY
THE WILLIAM WELD COMPANY (LIMITED)

JOHN WELD, MANAGER

AGENTS FOR THE FARMER'S ADVOCATE AND HOME JOURNAL,
WINNIPEG, MAN.

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About Bills.

When you buy a list of groceries, you get a bill with the goods. There is no offence intended. It is simply a memorandum representing the extent of your indebtedness—an intimation that settlement is in order. If for any reason you do not settle at the time, you will be presently favored with another bill. If the store's terms are cash, and you fail to settle within thirty days, interest may be added. It is no affront at all—simply business. If the account were not rendered, you might forget that you owed it, or forget the amount, at any rate. It is a part of the merchant's plain business duty to present his bill. It is the same with a paper, yet, strange to say, some persons seem to take it as dangerously akin to insult to be sent a bill for their subscription. They appear to regard it as a sort of personal reproach, addressed to them direct from the manager, who, they think, ought to know that their standing is good, and that they had intended to remit next week.

Now, this is not reasonable. Bills are sent out from a large business office by the clerks in a purely automatic way, like clock-work. If a subscription is due, the account is rendered. It is all done by system.

This does not mean the bill should be ignored or thrown into the waste basket. Our paper (in Canada) is \$1.50 a year in advance, otherwise \$2.00 a year. To take advantage of the lower rate, prompt remittance should be made.

When the term for which you have paid expires, or, in some cases, shortly before it expires, a bill is sent for the ensuing year's subscription, at the \$1.50 rate. It is really a favor to the subscriber to thus notify him, and the expense of rendering this service amounts to hundreds of dollars a year. A few thousands of subscriptions expire in February and March. Bills for these will be enclosed in the next paper sent to their addresses. Those who receive them will kindly understand that no imputation is cast either on their credit or their intentions. Their subscriptions are due and payable for the coming twelve-month. Remit promptly, and a second bill need not be sent.

Willingness to Learn and Act.

A remarkable account of orchard experience, contributed by Paul Campbell, of Halton Co., Ont., was published in "The Farmer's Advocate" of February 10th, under the caption, "\$2,500 From Ten Acres of Apples." Mr. Campbell was a city-bred man who decided to remove to the country, and accordingly purchased a large farm on which were two orchards, and to the culture of these he especially devoted himself. One of the orchards was a ten-acre block of Spies, the other a 15-acre assortment of mixed varieties. The year this farm was purchased the tenant had about five barrels from both orchards. Having lived in Toronto all his life, the new owner had no prejudices, and inherited no customs or habits of orcharding or farming, so he read agricultural pamphlets and "The Farmer's Advocate," learning the best that experts could tell him. He plowed the orchard out of sod, grew cover crops, fertilized, pruned and sprayed, making such a signal success of his apple-growing that last year he sold the crop from the ten-acre Spy orchard for \$2,500 in August, with no further trouble, expense or risk. Besides, he shipped from the old orchard last fall 1,700 boxes, which returned \$4.50 to \$7.00 a box, gross, and had considerable fruit stored for spring sale. You see, the poor man didn't know any better than to take good advice.

The text for a dozen sermons is contained in Mr. Campbell's one sentence, "I had no prejudices and inherited no customs or habits of orcharding or farming, hence I read farming pamphlets and 'The Farmer's Advocate,' and applied the knowledge gained." His predecessor, no doubt, thought he knew all about apple-growing, and, therefore, was not in a position to learn that a bearing orchard removes from the soil more plant food each year than an average crop of wheat; that every tree is a powerful pump, sucking up water to be transpired through the leaves, and that to secure a sufficient supply of plant food and moisture, a tree needs the ground to itself, with cultivation, besides, in the early part of the season, to conserve moisture and assist in the liberation of plant food; that cover crops should be sown in summer and plowed down the next spring; that the orchard should be fed with manure and ashes, and that thorough spraying will insure clean fruit. So he neglected these emphatic needs of the orchard, and it remained for a green city man to come out to the country, with an open mind, learn all that he could from the most reliable sources, and reveal to his district, as others have done elsewhere, the splendid possibilities of up-to-date orchard practice.

There is the great secret—an open mind. If every farmer in Canada could only bring himself to that point where he could re-examine into the knowledge he thinks he has about farming, divesting himself of notions and prejudices born of habit and limited observation, and apply himself like a schoolboy, earnest, enthusiastic and open-minded to learn all he could about the science and practice of all branches of agriculture, what a marvelous transformation would be speedily wrought in Canadian farming!

Would one, then, be content to grow small crops of inferior, wormy fruit from orchards that might easily yield annual profits of \$50 to \$100 an acre? Would he be content to buy bran at over \$20 a ton, when he could grow five tons to the acre of alfalfa hay, which, if fed as a substitute for bran, might be made worth \$15 a ton? Would he follow the old hay-and-oats system of farming, deriving an income of \$500 to \$1,000 a year, when he might, by keeping first-class stock on a hundred-acre farm, worked on a short rotation, with liberal acreage under ensilage corn, clover and alfalfa, make anywhere from two to four thousand dollars gross income a year?

Here and there all over the country, wide-awake young and middle-aged men are rising to the occasion in just such ways. These men, when they combine judgment and moral principle with their enterprise, become shining lights in their communities. Their success is an inspiration. We need more of them. Let each reader of this article endeavor to be one. Travel some if you can. Attend agricultural meetings and short courses if possible, but at least surround yourself with books, pamphlets and agricultural periodicals. Read, study and think. Then act.

Provincial Trade Treaty with Germany.

A provisional trade agreement between Canada and Germany was signed at Ottawa on Feb. 15th, by Dr. Karl Lang, Imperial German Consul for Canada, and Hon. W. S. Fielding, Dominion Minister of Finance, bringing to an end the tariff war which commenced in 1903, arising out of Germany's resentment at Canada's insistence on granting a tariff preference to Great Britain, and her success in inducing the British Government to renounce the German and Belgian treaties, which had guaranteed to Germany that no higher duties should be levied by British colonies on the products of Germany than on the products of the United Kingdom. The German and Belgian treaties had to be renounced by Britain, in order that Canada's intended preference might come into effect. To penalize Canada, Germany then subjected Canadian products to the higher scale of duties in the German tariff. The Canadian Government, after protracted and unsuccessful efforts to induce Germany to withdraw her demand for the same treatment that Canada accorded Great Britain, retaliated on November 28th, 1903, by applying the surtax to German goods. Perceiving the futility of further insistence, and desiring better trade relations with Canada, Germany has receded from her position, and has reached an agreement whereby the surtax might be suspended, allowing German goods to enter Canada under the terms of the general tariff, Canada receiving, in return, the benefits of the German conventional tariff upon a list of specified products, including practically all Canadian articles of export for which a market might be expected to be found in Germany, such as grains, fruits, timber, live stock, meats, leather, pulp, canned foods, footwear and hides.

This provisional agreement will probably pave the way for a general convention for the regulation of commercial relations between the two countries. Meantime, the provisional arrangement may be cancelled by either party on two months' notice. In view of the United States' European tariff negotiations now on the tapis, the Canadian-German arrangement is well timed, and should make for improvement in international relations, as well as commercial advantage.

"Something to Say."

At a crowded political meeting in England, years ago, while the audience was impatiently waiting for the time to start, it was thought best by those in charge on the platform that, as means of ventilation were lacking, a window should be broken to admit fresh air. In order to avoid a panic being started by the crash, the chairman got up to announce what they were going to do, and why. Instantly he was assailed by noises of various kinds and calls of "Dizzy," "Dizzy," "We want Dizzy" (Disraeli). After stamping and raging for a while, the chairman at last succeeded, during a lull, in making himself heard. "You fools, you," he roared, "I wasn't going to make a speech. I had something to say."

This impatience with mere oratory is growing. It was specially noticeable at the Convention of the Ontario Fairs and Exhibitions Association, lately held in Toronto. That great gathering of the cream of the rural population of Ontario gave the best possible hearing to any man who had a real message for them, and the most eager interest while matters of business were being discussed, but had little patience with mere speech-making. If a man has something that he is burning to say, it is well for him to say it in the clearest and most effective way possible, but there is less time now than ever before for mere froth of oratory.

One of the features of a tariff is its tortuousness, its intricacy, and the exceeding great difficulty of getting at the facts. If there is one great ethical argument in favor of free trade, it is that it destroys the tissue of falsehoods woven about a tariff.—[Dr. J. G. Rutherford.]

HORSES.

A Registration Tangle.

Some weeks ago, a communication from the secretary of the Clydesdale Horse Society of Great Britain and Ireland appeared in "The Farmer's Advocate," stating emphatically that a horse imported in August, 1906, as Sir Henry (13200), was discovered to be not Sir Henry at all, but another horse, called Braidlie Prince (12871). It was explained that the error occurred on the other side, and through no fault of the importers. Upon receipt of communications to that effect in Canada, the executive of the Canadian Clydesdale Association had a special meeting to consider the matter, and, after threshing it out, came to the conclusion that the horse imported was probably Sir Henry, after all, and declined to alter the record in the Canadian book. It seems that Sir Henry was described as a bay, with three white legs, one in front and two behind; the horse brought over corresponds to that description. So the matter stands as between the Old Country and Canadian Associations. It is an interesting coincidence that the horse which the Scottish Society claims the Canadian importer got, if imported now, would not be eligible under the new rules obtaining in Canada. The horse imported as Sir Henry is now dead, but has left about 150 colts, many of them from pure-bred mares. The discrepancy between the Canadian and Scottish records, entailed by the alleged mistake concerning the identity of this horse, is quite unfortunate, as in time to come it may make a bad mix-up with other studbooks. It is to be hoped that the matter can still be adjusted. The representation of our Scottish correspondent, that the British Association, being on the spot, is in the better position to judge the facts of the case, is logical; and while the matter is embarrassing to the Canadian Association, which had no part or responsibility in the alleged misunderstanding, through which it is claimed the wrong export certificate was issued, still it would appear wise, in the interests of business and international courtesy, to endeavor, even at some inconvenience, to harmonize the respective records.

Switcher and Kicker.

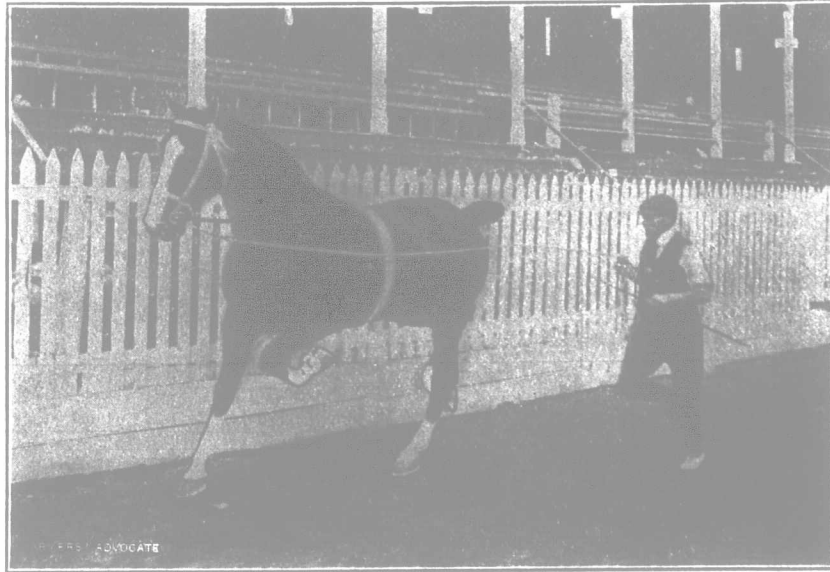
Editor "The Farmer's Advocate":
We often read articles in your valuable paper which are worth many times the price of the paper, if we appropriate them to our need, as, for instance, A. R. H.'s experience with a switcher; also, the answer in Feb. 3rd issue, "How to Stop a Horse Kicking." This, I am confident, is an excellent device. Reading these articles induced me to give my experience. I used to think, in my younger days, that these bad habits were the result of bad training, the trainer not fully understanding the disposition of the colt. In all my experience training colts—and I have handled a goodly number—I only had one real bad one, and she was a rank switcher and kicker, which knocked all the pleasure out of colt-training for me for the time being. After exhausting all my training skill, I had a switching crupper made of iron, and covered with leather, and put it on; but when she could not switch her tail, in the effort she would swing her rump and let her heels fly. I was disheartened, and resolved on severe treatment: put a straight bit in her mouth, buckled on a long and strong pair of reins, run them through the rings on the backband, and got behind with the whip, the whip being only used to keep her going in the direction I wanted her to go. The reins were then made to touch her tail, and as she switched or kicked I jerked a rein. Well, the scene was furious for a little while, but she gradually seemed to realize what caused the jerk. This was followed up for some days, until she was completely subdued, and would suffer not only the rein to touch but to be twisted round her tail. From that time on, she has done all manner of work on the farm and her share of the driving, with good satisfaction. She is now twenty-one years old, and an elegant driver yet.
Oxford Co., Ont. JOCK.

Thick Crupper for a Switcher.

Editor "The Farmer's Advocate":
Will give you my experience with a switcher. I have a gelding that had the habit very bad. I tied his tail for about two weeks, and found that it only aggravated him more, as he would get it loose sometimes and catch the lines, and start kicking, and it took considerable time to get things in order again. So I wrapped the crupper with strips of old bags until it was four or five inches thick, and let him switch, for he could not hold the line, as the crupper was too thick. I drove him both single and double with the same crupper in the summer of 1908, and when the flies were gone in the fall, I took it off, and he has quit the switching, and has not tried to hold the line since. He will be five years old in the spring and worked last summer the same as any other horse.
E. F. WOOD,
York Co., Ont.

Blanketing Horses.

In numerous instances the health and usefulness of a horse is partially or permanently injured by leaving him exposed, unblanketed, to cold winds or drafts in frosty weather, after being driven or worked hard and caused to sweat freely. It is often a case that may be properly classed under the head of cruelty to animals. It is seldom necessary to so drive or work a horse in cool weather that he will be in a sweat; but when it is necessary, common sense should suggest the kindness and prudence of covering him with a blanket when,



Brigham Radiant in Action.

Hackney stallion. First in class and breed champion, at many important shows. Exhibited by Graham-Renfrew Co., Bedford Park, Ont.

after being overheated, he has to stand more than a few minutes exposed to cold weather outside, or drafts in a stable. When a horse has been driven or worked until he is covered with foam and sweat, he should be taken into the stable, well rubbed down with wisps of straw or hay, or rough cloth, and then blanketed. There is little ground for excuse for the neglect of such precautions by men who have been raised on a farm, and have knowledge of the limitations of a horse, as to the amount of work he can stand, and the risk of neglecting to properly care for him. The abuse to which lively horses are sometimes subjected, by men ignorant of how they should be used, is pitiful, but may in many cases be charged

The Hackney Horse.

By James A. Cochrane.

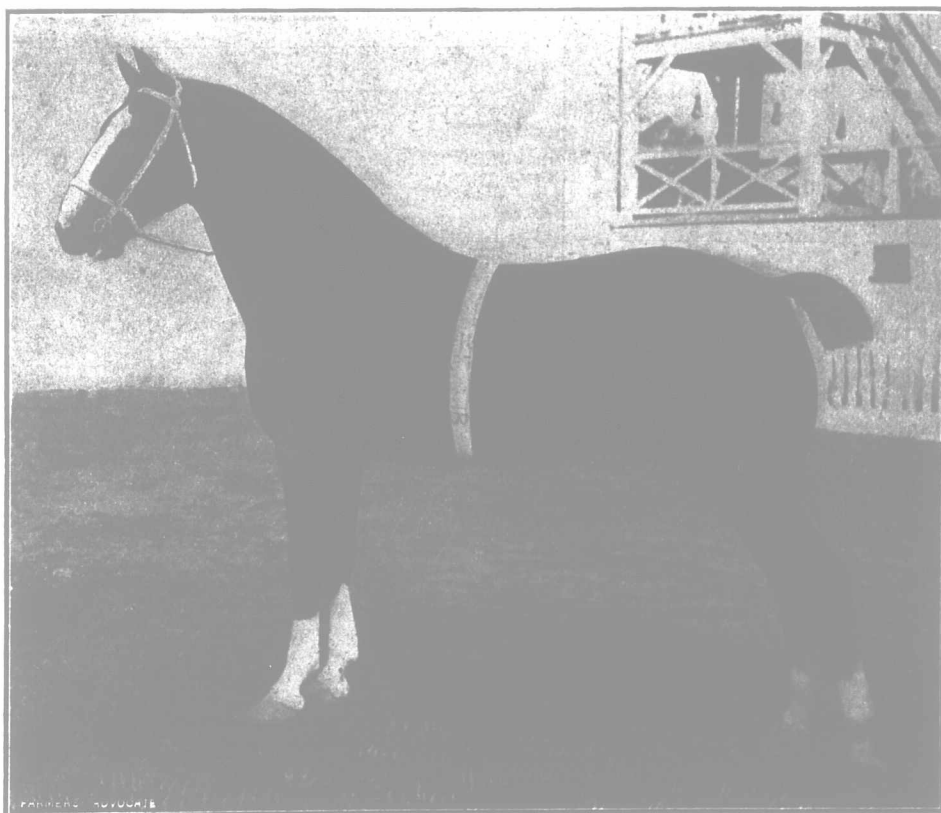
About a quarter of a century since, Norfolk had an almost European fame for its strong-made, short-legged Hackneys, which ranged from fourteen-three to fifteen-two, and could walk five miles an hour, and trot at the rate of twenty. Fireaway, Marshland, Shales and The Norfolk Cob were locomotive giants in those days, and the latter was the sire of Phenomenon, who was sold into Scotland when he had seen his twentieth summer, and astonished his "canny" admirers by trotting two miles in six minutes.

So wrote "The Druid," in 1856, evidently sharing the prevalent belief that the utility horse was soon to follow the Dodo in competition with the railway, little dreaming that Yorkshire was so soon to produce Denmark, a sire who was destined to lead the van in a revival which placed the breed on a sound studbook basis, with an annual show in London, now one of the fashionable equine events of the year.

When we consider what the jovial heavy-weight farmers of Yorkshire and Norfolk, before the advent of the iron horse, required of their "nags," or roadsters, it is not surprising that an analysis of their breeding should show it to be chiefly Thoroughbred and Arab, judiciously blended with cold blood. The Hackney was moulded by the English farmer to suit his requirements, and when such men as Mr. Burdett-Coutts and Sir Walter Gilbey, in England; Prescott Lawrence, Henry Fairfax and

Doctor Webb, in the United States, and Senator Beith and the Grahams, in Canada, brought him before the public, he made himself the fashion by the brilliancy of his action, his symmetry, style, and good manners. Probably one of the best descriptions of the typical Hackney was written a few years since by Alex. Galbraith, who says: "The Hackney is stoutly built, strong and short in his cannon bones; head neat, and wide between the eyes; ears short and active; neck rather strong and well arched; shoulders deep and oblique, and, for riding purposes, moderately fine on top; chest deep and wide, denoting vigor and vitality; back short and wide; body round and ample; coupling short and

loins strong; quarters long and heavily muscled; tail well carried, but lower-set than in the Thoroughbred or Cleveland Bay; thighs powerfully muscled, and well let down into the hind legs, which are strong and cordy; pasterns oblique and of moderate length; feet tough, fairly deep, and of medium size; action bold, free, straight and lofty, perfect union being maintained between shoulders, knees, and hocks. General characteristics: vigor, promptness, plumpness, and high, all-round action. The Hackney's disposition is perfect, his soundness is probably unequalled in any breed, and his power of endurance is without a parallel. As a "ride-and-drive" animal, he is a



Brigham Radiant at Rest.

universal favorite, and as a general-utility horse, he comes nearer filling the bill than any other breed." While there has probably been but little increase in the number of breeders in late years in Canada, the popularity of the breed is greater than ever, as is proved by the flocking of spectators to the ring-side at all horse shows when a Hackney class is being judged. The most successful Hackney sire in America to-day is Hillhurst Sensation, whose owner, Ausley Yeager, has paid out to farmers in the

vicinity of Simcoe, Ont., for his colts, no less a sum than \$32,130. A few years since, The Breeder's Gazette, Chicago, referred to him in the following terms: "This is one of the phenomenal breeding horses of the present day, and will rank in the history of the breed in this country with the great ones of England, such as Triffit's Fire-away and D'Oyly's Confidence."

Undoubtedly, the most successful cross for the Hackney is the half-bred Coach or Standard-bred mare of quality (never the draft-bred animal), but the stallion must be of the highest type and breeding to produce carriage horses of the modern kind, the demand for which is not affected in the slightest degree by the automobile.

Hackney-breeding can best be carried on by farmers in the vicinity of large towns, where the services of well-tried stallions are already available, where horse shows are held, and where colts can be accustomed to autos, etc., in early life. It is half the battle for a district to establish a reputation for any one kind of stock; and of all the good sorts that have come out of the wonderful little Island of Great Britain, the highest type of superlative beauty, combined with usefulness, is found in the Hackney.

Viciousness in Colts.

I am asked by a neighbor to criticize your essays on colt-training. What he particularly objects to (and I agree with him) is the lack of any instruction in handling a vicious animal. He reasons that we frequently find in any neighborhood a horse that will leave a lot of evil-dispositioned progeny, which are otherwise desirable in action, conformation and endurance. In fact, we usually find one of that kind "nervy, tough and gritty," but they are hard to manage. They have to be "broken." No amount of training and coddling and chirping will teach them to work. They usually have a great dislike for work of any kind, unless they can be allowed to do it in their own way and when they like. Consequently, with them heroic measures have to be adopted in persuading them to do work, and it is here that the use of handy hitches and contrivances would be valuable information. It is easy enough to train the ordinary colt, such as your essayists describe, but the vicious, high-spirited animal is a different proposition, but they usually are the most serviceable beast when carefully handled. They balk and kick, and try to throw themselves, and when they do go, they try to imitate Jehu the son of Nimshi. Now, we would like someone to rise and tell us how to counteract these evil tendencies. We are convinced that the methods advised by your essayists would be like giving candy to a child to get it to do anything. Such children or horses never amount to much. Both are naturally evil, and prone to act contrary, and have to be broken and forced to be of use in the world's work. I remember one colt in particular which this neighbor had. It was well broken and carefully handled, but after every period of idleness was apt to act contrary. At such times it would have to be taken out of the harness and thoroughly subdued by any means which would show it that the man was its master. Then it would go off like a lamb. But it was afraid of nothing else, and no amount of coaxing or petting had any effect. It sold for a high price, and I am told soon became boss of its purchaser. Such animals are not uncommon, and we want to know how best to manage them.

J. H. BURNS.
Perth Co., Ont.

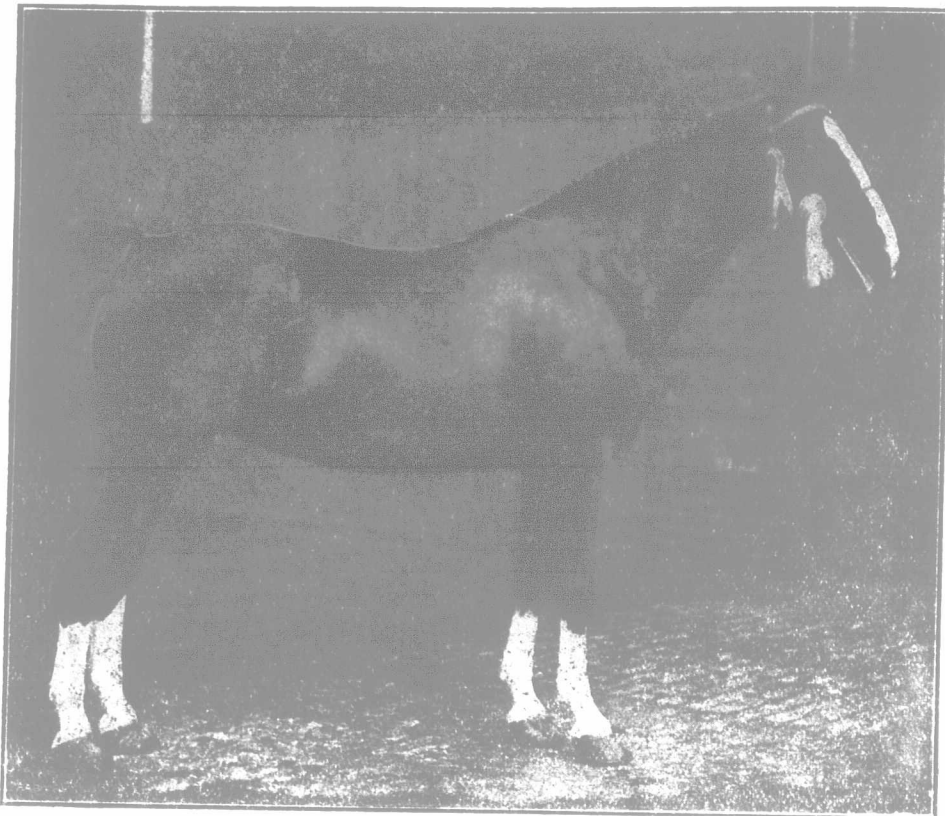
[Note.—In answer to the above letter, I may say that I have never known a colt that was handled when young, and whose education was gradual, as described in the prize essay, or by other methods on the same line, that turned out a cranky, vicious brute, as your correspondent describes. It, in my experience, has been horses that have been "broken" that would "break out afresh" after a period of rest. Of course, we find all sorts of dispositions in horses, but, as your correspondent speaks of training a colt, so in training a colt—one with a nasty or vicious disposition can usually be made a good-mannered horse by careful and gradual training, but not by "breaking." There may be rare exceptions to this rule, but I have never met with any, and I have handled many that were inclined to be nasty. Horses of this kind, when met with, must, of course, be handled according to their form of viciousness. The ingenuity of man must overcome the brute strength of the horse. No set rules can be laid down, as no doubt no two vicious horses would act in just the same manner. Where severe punishment as your correspondent states, is occasionally necessary, and where kindness has no effect, I can see no other plan but to do as he says. "It would have to be taken out of the harness and thoroughly subdued by any means." I suppose this is a case in which "the end justifies the means." It appears to me that those who are complaining about the awards have lost sight of the fact that the competition was for essays on "Training Colts," not on "Handling Vicious Horses," or "Broncho-busting," and while it is possible some colts cannot be successfully trained without violence or punishment, the gen-

eral principle of the best way to train the average colt was the standard by which the essays were judged—"Whip."]

Another Remedy for Kickers in Harness.

Editor "The Farmer's Advocate":

To stop a horse kicking in harness, my plan is to hitch the kicker along with another horse, and when he starts to kick, get out of the rig and



Countess Clio.

First in class and reserve champion, London Hackney Show, 1909.

strap the nigh front foot up to the bellyband; get in the rig and start. Keep him going with the whip as long as he can go, then let down the foot. Start him off again, and as soon as he starts to kick again, strap up the other front foot and keep him going as long as he can. When you let down the foot, he will be very glad to go without kicking. Hitch him up again next morning, and if he starts to kick, go through the same performance as on the preceding day. When he stops kicking, give him a ten-mile drive before you take the harness off him. I have trained



Hackney Stallion, Hillhurst Sensation.

some of the worst kickers that ever had on harness by this plan.

A. JOHNSTON.
Huron Co., Ont.

In answer to A. W.'s question in your January 27th issue, would say that if he looks closely he will find that when his colt hangs its tongue out of its mouth, the tongue is on top of the bit, instead of under, as it should be. Now, if he takes an ordinary curved bit, with no joint in the middle, and buckles that bit upside down on the bridle for that colt, it will keep the tongue where it should be.

A. J.
York Co., Ont.

Clydesdale Origin.

D. H. Messenger, of Wellington County, Ont., a staunch friend of the Shire horse, writes: "In your issue of February 3rd appeared a communication from Prof. Duncan McEachran, re the Clydesdale horse. I was pleased to see such in your paper, coming from the pen of Dr. McEachran, who is generally admitted to be good authority on the Clydesdale horse. His statement fully corroborates what I have contended to be the case,

viz., that almost all of the best specimens of the Clydesdale horses are rich in Shire blood." Mr. Messenger encloses a letter from Arch. MacNeilage, Secretary of the Clydesdale Horse Society of Great Britain and Ireland, dated in 1892, in which Mr. Messenger claims the same thing is admitted, and referring to Prof. McCall, who used to stand high as a breeder of Clydesdale horses. The letter is addressed to a Wellington County man, and reads as follows:

"The final opinion of the Council of the Clydesdale Horse Society regarding the pedigree of Prince of Wales (673) is shown in the second edition of the retrospective volume of the Clydesdale

Studbook. There is no opinion expressed regarding his gr.-dams, nor does the information lodged by Mr. Fleming help in arriving at a decision as to the parentage of the two gray mares, his gr.-dams. They may have come from England, or they may not. Reliable information regarding them ends in their purchase in Dumfries market.

"The pedigrees of the fillies that we saw at Prof. McCall's are mixed Shires and Clydesdales, the latter predominating. The sire was three-quarters Clydesdale, one of the mares was a Shire; two, I think, were half Shires, and the remainder were three-quarters or full-blood Clydesdales."

Objection to Low Back.

An Alberta correspondent asks: "When a horse or mare is low in the back, is the defect likely to be reproduced in their offspring?"

Defects of this kind seldom make their appearance immediately in the produce, but it often follows that where ever there is a defect in a parent, there will be a tendency to that same defect in the offspring, and when the part is put to a strain, its weakness will become evident. This also applies to diseases. The produce of a spavined horse does not come with spavins fully or in part developed, but a considerable percentage of them will probably have spavins if they live long enough. One has only to have an experience of this kind to be impressed with the tendency of diseases to reappear, and the predisposition to diseases or defects.

If the Thoroughbred is so necessary to the best interests of horse-breeding as his champions claim, it is a blue outlook for the future of other pure breeds. Have we proved yet what selection and systematic breeding can do for the light-legged breeds, along with energetic exercise, but without racing?

LIVE STOCK.

The Joker in Ontario's Sheep and Dog Law.

Editor "The Farmer's Advocate": Relative to an item on "Sheep Killed by Dogs," in the Question & Answer column of the Christmas Number, allow me to state there is there a question asked which vitally concerns me. I am interested somewhat in this line of stock, and it is certain the dog nuisance is the great hindrance to this line of husbandry. It appears to me you have answered the question somewhat roughly, though probably correctly. You say the matter is governed by Provincial legislation, whereas, to my knowledge of the law, and as we have it in our township here (Stanley), the thing is to all practicable purposes governed by municipal by-law, or, in other words, they override the statute by township law, and the result is the council won't pay for sheep killed. Now, I want to ask right here, Mr. Editor, is it right to have a real good law on our statute books like this, and still have it there only in such a way that the average man, or any other man, cannot apply it or put it into force? As far as I understand the statute, it is of no practicable use to me as one engaged in the sheep business. Now, why should this "local-option" clause be put in it at all? It is no use there, absolutely. It seems to me that the local-option clause is first-class legislation in connection with the License Act, but should not have been tacked on to this all-important statute. I, for one, think now a very opportune time to have this very objectionable clause struck out of this legislation, leaving the act on statute binding on all municipalities. Allow me to state, as one who knows, it would be a very great boon to the industry of sheep-raising. The cry is going over the country just now, "Where are our flocks gone?" and so on. Legislators and Ministers of Agriculture are now wanting to do something to help the woolen trade along. We can't have wool without sheep, and we can't have sheep unless the dog nuisance is done away with. I submit this, hoping you will give it your very best attention. I might be permitted to ask a question: Are township councils liable for sheep killed where a dog tax is collected? What was the original meaning or use of dog-tax money? W. W. COOPER.

Huron Co., Ont. [Note.—Our answer was quite correct. The matter in question is governed by Provincial legislation, by virtue of which the municipalities derive their authority in the premises. Township councils are not necessarily liable to pay compensation for sheep killed by dogs because they maintain a dog tax. They may, by by-law, declare that the application of the proceeds of such tax, provided by the statute, be dispensed with (R. S. O., 1897, Chap. 271, Sec. 8). The original meaning and use of "dog-tax money" is, we think, to be gathered from Sec. 7 of the statute in question, which section provides that the money collected under the preceding sections is to constitute a fund for satisfying damages arising from dogs killing or injuring sheep or lambs in the municipality. We heartily agree that the "local-option" joker in the law should be removed. It was placed there, undoubtedly, as a concession to such municipalities as might find the provision unpopular. The act should certainly be amended.—Editor.]

Experience with Loose Feeding Wanted.

A correspondent asks the opinion of leading finishers of beef cattle as to the matter of feeding loose or tied. We believe opinion is coming increasingly to favor loose feeding, when a sufficiency of bedding is available, and when cattle are assorted as to size and strength, with not too many in a pen, and with provision made so that each may obtain its fair share of feed. The subject is one, however, upon which briefly-stated experience and opinions would be read with profit. Subscribers who have had experience with loose feeding are invited to send us short letters, of two or three hundred words, dealing with these points: 1. For how many seasons, and with what number of cattle have you had experience in loose feeding? 2. How many head would you have in one compartment, and of what size should it be to accommodate them comfortably? 3. How do you manage the feeding and watering, and the cleaning of the stables? 4. What are the advantages and disadvantages, compared with stall-feeding, in respect to amount and cost of gains, ability of the cattle to stand a prolonged feeding period, amount of bedding needed, preservation of manure, and amount of labor required?

Notes from Ireland. CATTLE FROM THE ARGENTINE.

While the political forces were mustering their array, it came as a bolt from the blue to Irish farmers to learn that it was the intention of the Liberals, if returned to power, to remove, in the month of April, 1910, the embargo upon live-stock from the Argentine, at present in operation at British ports. At first glance, this news, coming from an unofficial but well-informed source, was regarded by many as a subtle electioneering-vote-catcher to serve Ministerial interests in shipping circles and dockyard districts; but soon it became patent that there was some foundation for the rumor, and inquiry at headquarters elicited the fact that the matter was really engaging the serious consideration of the authorities, to whom assurances had been given of the freedom of the Argentine from cattle disease. The announcement took us by surprise, and to this fact may be attributed certain misconceptions that prevailed for the time being. For instance, it was thought an outlandish suggestion that any Government calling itself British should treat a foreign country with special consideration by affording it facilities which were denied to one of our own colonies, Canada, to wit. But, later on, when we began to collect our senses, we remembered that at present, while Canadian live stock are admitted for immediate slaughter, South American animals are not allowed in at all, except as dead meat. So the proposed change really means that Argentine and Canadian exporters are to be treated in exactly the same way.

The South American authorities are moving strongly in the matter, and they have influential allies in the shipping companies and harbor com-

ket from the County of Wexford. This meat, which was properly dressed, consisted of the carcasses of five prime Aberdeen-Angus heifers, and was despatched by the new Fishguard route of the Great Western Railway, which goes through South Wales across England to the metropolis. The beef arrived in first-class condition, and met a ready sale at the top price of the day, viz., 4s. 4d. to 4s. 6d. per stone of 8 pounds. The experiment, of course, had the benefit of special care at all stages, but it must be regarded as providing encouraging evidence in favor of the feasibility and profitableness of the new trade.

IRISH FAT-STOCK EXHIBITION.

In view of the foregoing, it was especially appropriate that our recent winter Fat-stock Show in Dublin should have proved one of the most popular and successful functions of the kind ever held in Ireland. The Department of Agriculture, the Cattle-traders' Association, and the County Committees of Agriculture all co-operated with the actual promoters, the Royal Dublin Society, to lift the show out of the dull and functionless state into which it was rapidly declining, and the united efforts were most successful. Excursion parties of farmers were organized by the county instructors, and a record attendance of the right kind of people was thus obtained. The show itself was not, of course, perfect, but it marked a great improvement on its predecessors, and a still better advance is looked for next winter. Upwards of 400 entries were received in the cattle section, while we had 47 pens of sheep, but, softly, please!—no pigs! Of roots and grain, butter and poultry, there were 688, 265 and 768 entries, respectively. With regard to the cattle, a notable feature was the fine display of useful out-fed

beasts, which testified to our good grass and genial climate. The show also strikingly demonstrated the remarkable influence of the Aberdeen-Angus breed in producing choiceness of meat and high quality of finish. The comely blacks accounted for many of the chief trophies. Herefords, too, showed up advantageously as a cross with Shorthorns or Angus cows, but it was observable that these crosses were not so good over the quarters where the steaks lie, or so well ribbed, as crosses A



Dunure Shapely (i- Clydesdale stallion. Three-year-old Clydesdale and Ottawa Winter Fairs, 1909. Ontario, Canada.

missioners, who also actively backed efforts to secure the admission of C. The health of our home stock which directly appeals to these they do not appear to give this subject serious thought.

IRISH DEAD-MEAT

Synchronizing with the di imports has been a notably posed Irish dead-meat trade realization of which would satisfaction. Not only w considerably by devoting of the finished article. legiance to the store- trial population wou extensive supplies of very large number maintained all of v stem the tide of c at home, and enh Irish tanning inc would be amon slaughtering of shown by it in In different pa trade is bei ment offic farmers, shipping the last f Irish beef

irrepressible questioner that the siros that had been so much spoken against "would not be sent into the country," and at that we have been left—for the present.

A FLAX INQUIRY.

By the way, T. W. Russell, the Vice-President, has been one of the vanquished at the elections, and those qualifying letters, "M. P." have disappeared. One of his last acts before the election was to appoint a committee to inquire into the very vexed subject of flax-growing, and to report upon the causes that have influenced its decline, with a view to their remedying. The flax crop is one of great importance to the Province of Ulster, and at one time, indeed, it was extensively cultivated in the Southern and Western Counties, as well. During the past two or three decades it has, however, seriously fallen off, and so we find that, whereas 156,000 acres were devoted to it in the year 1871, the area under flax last season (1909) was only 38,110 acres, which was 8,800 acres less than in 1908. Even flax-growers themselves are not agreed as to the real reason why prices have not encouraged them to continue growing the crop, so the inquiry about to take place is being awaited with genuine interest, in the hope that it will ultimately lead to the successful revival of one of our all too few remaining industries.

"EMERALD ISLE."

Smithfield Show Carcasses.

The block-test reports, published by the Live-stock Journal of the live and dressed weights of animals in the competition at the recent Smithfield Fat-stock Show, furnish valuable information. In the carcass test of steers under two years of age, the number of entries was ten, which gave an aggregate live weight of 12,146 pounds, and a carcass weight of 7,745 pounds. The percentage of carcass to live weight was 63.76; the average daily gain of the whole class was 1 pound 13.90 ounces alive, and 1 pound 3.07 ounces in the carcass. The highest percentage of carcass to live weight was 67.16, and the lowest 56.47. The highest average daily gain alive, 2 pounds 4.80 ounces, was given by the champion carcass, Sir Walter Gilbey's cross-bred; the same animal gave the highest average daily gain of carcass weight, 1 pound 7.68 ounces. The lowest average daily gain alive was 1 pound 8.46 ounces, and 15.13 ounces, both given by the same animal.

The butchers' reports of this age give particulars of eighteen steers. The aggregate weight alive was 23,965 pounds, and dead 15,264 pounds, showing a percentage of 63.68 of carcass to live weight, with an average daily gain of 1 pound 15.33 ounces alive, and in the carcass of 1 pound 3.95 ounces. The highest percentage of carcass to live weight was 78.48 per cent., and the lowest 57.35 per cent. Of the eighteen animals reported on, one dressed over 70 per cent., four over 65 per cent., eight over 60 per cent., and five under 55 per cent. carcass to live weight.

The average daily gain alive was 2 pounds 1.19 ounces, and the lowest 1 pound 4.19 ounces. The highest daily gain of carcass was 1 pound 10.94 ounces, and the lowest 1 pound 3.07 ounces, and the

percentage of carcass to live weight was 63.76, and the lowest 56.47. The highest average daily gain alive, 2 pounds 4.80 ounces, was given by the champion carcass, Sir Walter Gilbey's cross-bred; the same animal gave the highest average daily gain of carcass weight, 1 pound 7.68 ounces. The lowest average daily gain alive was 1 pound 8.46 ounces, and 15.13 ounces, both given by the same animal.

of carcass to live weight, and, on the other hand, both in respect to average daily gain alive and in the carcass, those specially fed for exhibition alive show the highest, indicating, as has been mentioned in former years, that the excessive amount of feeding necessary to win in the live section of the show is not essential for the production of suitable and salable carcass for present-day requirements.

The steers over two and not exceeding three years, exhibited in the carcass classes, numbered thirteen. The percentage of carcass to live weight worked out at 65.48 per cent, with an average daily gain alive of 1 pound 7.79 ounces, and in the carcass of 15.58 ounces. The range of percentage of carcass to live weight was from 69.08 per cent. to 63.39 per cent. The range of average daily gain was from 1 pound 11.86 ounces to 1 pound 2.76 ounces alive. The highest daily gain of carcass weight was 1 pound 2.67 ounces; these averages ranged from this down to 12.12 ounces.

The butchers' reports for this age include 36, showing a percentage of 65.81 per cent. of carcass to live weight, 1 pound 10.94 ounces average daily gain alive, and 1 pound 1.73 ounces average daily gain of carcass. The highest percentage of carcass weight was 71.85, and the lowest 59.24 per cent.

Heifers not exceeding three years of age in the next section to which reference is made. This class, in the carcass competition, was very small, and a comparatively weak one, for there were only four entries present, the aggregate weight of which was 4,817 pounds alive, and 3,161 pounds dead, which gave a percentage of 65.62 per cent. of carcass to live weight, an average daily gain of 1 pound 8.78 ounces alive, and 1 pound 0.26 ounces dead.

The range of percentage of carcass to live weight was from 66.59 per cent., given by Sir Walter Gilbey's fourth-prize heifer, to 64.49 per cent., made by the second-prize heifer. This animal, however, gave the highest average daily gain both alive and dead; i. e., 2 pounds 0.30 ounces, and 1 pound 5.24 ounces, respectively.

The butchers' reports of this section included 19 head; aggregate live weight, 25,889 pounds, and carcass weight 17,383 pounds, showing a percentage of carcass to live weight of no less than 67.14 per cent., the average daily gain being 1 pound 7.18 ounces alive, and 15.56 ounces in the carcass.

The average daily gain of these animals ranged from 1 pound 14.50 ounces alive, to 1 pound 1.32 ounces. The highest average daily gain of carcass weight was 1 pound 4.48 ounces, given by the second-prize Hereford; the remainder of these heifers ranged down to 10.48 ounces. The range of percentage of carcass to live weight for these nineteen heifers is worthy of note, for, out of them, twelve gave a percentage of carcass to live weight exceeding 65 per cent., six exceeding 60 per cent., and one only, the lowest percentage of carcass weight of the whole lot, just under 60 per cent.

The marked difference between the percentage of carcass weight shown between these two lots of heifers is of the same character as last year; i. e., those fed specially for exhibition alive showing the higher percentage, but the average daily gain of

those specially fed for slaughter works out higher than the other. Why this should be the case, is somewhat difficult to understand; but, owing to the small number entered in the carcass class, it is evidently owing to the fact of the very high average daily gain given by the second-prize animal in that class, and the same reasons are doubtless the cause of the average daily gain of carcass weight shown in the slaughter class being in excess of that for those reported above by the butchers.

Japan Wants Sheep.

Dr. Issa Tanimura, special envoy from the Japanese Emperor is now in the United States to investigate the sheep and wool interests, and the American Sheep-breeder publishes a very interesting interview, from which we quote:

"In the past, on account of the Buddhist religion, a Japanese who liked meat would have to procure it secretly, and cook it and eat it in some isolated spot where he would not be discovered in satisfying his appetite for a forbidden joy. To-day, even, the older people still cling to Buddhism, and shrink with horror from those who violate the ancient doctrines by eating meat. But the younger generation is growing to like meat, particularly mutton, and the next decade will see us a nation of meat-eaters. Meat-eating goes with the new aggressive spirit of progress and modern ideas.

"The farmers are also becoming more scarce, so that the supply of vegetables is less. Formerly, all Japanese farmed. They wore no hats, and only cotton clothing, being vigorous and healthy. But since Europeans have come to Japan, the people have taken to the cities, adopted mechanical, commercial or professional business, and deserted the farms. The Japanese war caused a great increase in the desire for meat, as the soldiers brought back a taste of it from the frontier. Beef is now eaten very largely, and America is the best place to get it from. We have tried Australia, but in crossing the tropics the flavor of the meat is spoiled. Our meat has come largely from foreign countries. Mutton has lately been introduced. There are only 3,000 sheep in Japan, and our people do not know how to feed them. Lamb and mutton is so little known that most of the Japanese will not eat it, but the sheep that are killed because they get too old are cut up and mixed with beef. The people do not know the difference between the two meats, and eat the sheep in this way. But if the mutton is properly prepared, I think they would prefer it to pork or beef, for the Japanese seem to like chicken immensely, and of the meat of quadrupeds named, mutton and lamb approach chicken the closest.

"We want Americans to found the sheep industry on broad lines in Japan. We want you to teach us how to raise sheep.

"Asaka, our great manufacturing city for woolen goods, is crying for more wool. Our manufacturing interests would, of course, develop with the sheep industry in our country."

Use of Peavines from Pea Canneries.

In the early history of pea-canning the peavines were treated as a waste product, the disposal of which involved considerable difficulty and expense. Most commonly, they were thrown out in piles to rot, the resulting manure being used for fertilizer.

During recent years the peavines have risen to the dignity of a by-product, from which the factories derive considerable profit. They are now utilized for silage, or fed to stock in a fresh state, or cured for hay. They make a silage superior in value to corn silage. They may be preserved in silos the same as green corn, or they may be put up in large stacks in the open air. If these stacks are well put up, and the vines are well tramped, decay will only affect the surface to a depth of a few inches.

The United States Department of Agriculture has recently made an extensive investigation of this subject, and published the results in a circular. The peavines can easily be cured by spreading them on sod land. Peavine hay is said to be better than clover hay.

Both the hay and the silage are excellent feeds for dairy cows. They are also satisfactory feeds for beef-cattle, horses and sheep. The hay frequently sells at \$3 to \$5 a ton.

In some cases the peavines are hauled away from the factory by the growers who supply the peas; in other cases they are sold in a fresh state; and in still other cases the factories either ensile the vines or cure them for hay.

Great Britain's exports of high-class stock last year comprised over 2,700 head of cattle, about 7,000 sheep, and 700 pigs, valued at over three-quarters of a million pounds. These figures do not include the large shipments of Clydesdale, Shire and Thoroughbred horses.



Our English Correspondence.
BACON FACTORIES FOR ENGLAND.

The scarcity of bacon, and the high prices ruling for the last twelve months, have given a great impetus to the movement for establishing bacon factories in England. A company has been established at Dunmow, Essex, on a fairly large scale, and a smaller factory has been started in Lincolnshire. Prospects in both cases are said to be good, and farmers will watch the success or non-success of the experiments with much interest, especially in the case of the Dunmow factory, which is on a co-operative basis. Denmark, in the last twenty years, has proved abundantly the feasibility of the co-operative factory.

A great evil in pig-breeding in England is the widely-fluctuating prices, and it is an advantage in the factory system that it steadies prices by constant demand, and, should prices of bacon be ruling low, the product can be held for a more remunerative market. Pigs are still selling at very high prices, and pig-breeders are reaping fair profits—not so great as might be thought, as feeding stuffs are also high in price. Only a small proportion of the pork products consumed by the British people are produced at home. The imports exceed in value £20,000,000 annually, largely from Denmark, so there is a large field before the home producer if he will only supply, at a reasonable price, what the market demands.

MILKING SHORTHORNS.

Great attention has been paid in recent years in England to the improvement of the milking qualities of Shorthorn cows by a number of prominent breeders, and considerable success has followed their efforts. Mr. Taylor, of Cranford, has done excellent work in this direction. He reports that when he commenced his herd records, the milk average was 600 gallons per annum. Now it exceeds 800 gallons. Speaking recently on his method of management of his herd, Mr. Taylor stated that in the summer time the grass fields are largely depended on for food, but freshly-calved cows get an extra allowance of cake. The amount of cake allowed is from two to eight pounds daily. In winter, the herd is kept in night and day, but the cows are allowed out for water and exercise. The bulls are kept in open yards. Good ventilation and light in the stables are made a special point, because they mean much for the comfort of the cow, and a comfortable cow means a large milk supply. Indian corn is sown almost the first week in May, and has been found to be an excellent supplement to pastures from August onward. For green food in winter, cabbages and mangolds are grown.

YOUNG VS. AGED COWS.

Many dairymen are strong believers that young dairy cows give richer milk than the older animals. The Lancashire County Council has been making some inquiries along this line, and the figures they publish bear out this impression. Not only is the percentage of fat greater, but the solids not fat are also present in greater quantity. The actual figures are as follows:

	Fat.	Solids not fat.
2 years old	3.72 p. c.	8.89 p. c.
3 " "	3.63	8.91
4 " "	3.60	8.78
5 " "	3.55	8.70
6 " "	3.46	8.71
7-8 " "	3.52	8.62

This advantage in quality is, however, more than balanced by the great superiority of the older cows in the production of large quantities of milk up to the age of seven or eight years.

WHEAT EXPERIMENTS.

How the wetness or dryness of a growing season affects the yield of wheat is well shown by some experiments carried on last year by the Bedford County Council. Eighteen varieties were sown, and some returned double the yield of others. As the season was a very wet one, those varieties which stood up best gave the best yield. Revits gave 47½ bushels per acre; White Stand Up, 39½ bushels; while Canadian Red Fife yielded only 20½ bushels.

Taking the eighteen varieties as a whole, those which had the ability to stand up in a wet season filled and ripened better than the others.

COST OF REARING CALVES.

An experiment has been completed in County of Cork, Ireland, to ascertain the relative cost of rearing calves dropped in April and November, respectively. Five calves were selected for each period, and fed for twelve months. The November calves consumed 114 gallons of new milk, and 1,143 gallons of separated milk. In addition, they were fed calf meal, crushed oats, hay and roots. For grazing, £1 was charged. The cost for 12 months' feeding was £5 3s each. The

April calves consumed 143 gallons of new milk, and 1,165 gallons of separated milk. Other foods were the same as for the November calves; grazing being for a shorter period, was charged at 12s. per head. The April cost was £5 10s. per head for feeding.

When the November calves were sold they realized £7 8s. each, but the April calves only sold for £6 10s. each. The total income from the November calves was £37, and the profit realized was £2 5s. 8d., after allowing for first cost of calves, labor and interest. The April calves realized £32 10s., and, after allowing for all charges, showed a loss of £4 2s. 1d.

Throughout the whole period the November calves were more thrifty than the others, and made greater daily gains at lower cost. One result of the experiment was to show that separated milk fed to November calves had nine times greater value than when fed to April calves.

SOUR-MILK TREATMENT.

We are hearing a great deal in England now of the "sour-milk treatment," which is said to prolong human life to a healthy and vigorous old age. Prof. Metchnikoff, a famous bacteriologist, has discovered that a diet of specially-prepared sour milk has great health-giving properties. It has long been noted that the peasants of the mountainous regions of Bulgaria, who drink large quantities of sour milk, are exceptionally long-lived. This wonderful property of sour milk is claimed to be due to the presence of immense numbers of lactic-acid bacilli, which are the deadly foes of the putrefactive and disease-producing bacilli which swarm in the large intestine. Several London dairy companies and chemists advertise pure sour milk, and for those to whom sour milk is distasteful, the lactic-acid bacilli are provided in the form of tablets, made of chocolate and the bacilli combined. So the human race has to add one more good attribute to the many already possessed by the domestic cow.

THE FARM.

"Yard" and "Cord."

Please explain or define the terms "yard" and "cord," as used by contractors. Also say which is mostly used in letting municipal jobs, such as gravelling, etc.

ENQUIRER.

Ans.—Gravel or crushed stone are commonly teamed or bought by the yard, or half cord. Quarries usually ship crushed stone by the ton. Field stone, piled for crushing, is usually paid for by the cord.

A yard (cubic) contains 27 cubic feet, and a cord contains 128 cubic feet. A cubic yard of stone or gravel is the same as a cubic yard of any other material. And a cord of stone has the same volume as a cord of wood, 4 x 4 x 8 feet.

A wagon box should hold a yard and a half or two yards of gravel or crushed stone. Thus, a wagon-box measuring inside 8 feet long, 3 feet 2 inches wide, and 2 feet 1½ inches deep, will hold approximately two cubic yards. This, if teamed a mile or more on ordinary roads, will settle in the box to a generous yard and a half.

A half cord is 64 cubic feet, and is contained in a wagon-box measuring 8 feet long, 3 feet 2 inches wide, and 2 feet 6 1-3 inches deep. Measurement of quantity should be at the work, and wagon-boxes should provide for settlement.

In letting municipal jobs, to prevent misunderstanding, the contract may clearly state that "a yard is 27 cubic feet, a cord is 128 cubic feet, measurement to be in the wagon at the work."

W. A. McLEAN,

Provincial Engineer of Highways.

Curtail the Dog Nuisance.

Editor "The Farmer's Advocate":

It is a well-known and regrettable fact that the sheep industry is at a low ebb in the Province of Ontario. It is also generally admitted that, under favorable conditions, it is one of the most profitable branches of stock-raising in the Province.

It is also well known that the greatest handicap or discouraging feature in the business is the dog nuisance. That it should be abated, I think all agree. But how shall it be done? is the question—to my mind, a question not hard to answer.

Legislation requiring each municipality, including towns and cities in Ontario, to send to the Government once a year the number of dogs kept in such municipality, and also the amount of damages done by dogs to sheep, and also to the human family, in such municipality, would enable the Government to determine the taxes to

be levied on each dog for the year following. Then, each municipality would collect from those who keep or harbor dogs the taxes levied, and send them to the Provincial Government to form a "Dog Fund," from which to satisfy all just claims for damages done by dogs in the Province.

An exception should be made in the case of solvent owners, if located, who must pay damages done by their dogs. Leading sheepmen feel that they have a right to better legal protection for their flocks. Our fish and seals of the waters, and our game of the forests, are properly cared for by law. Are not our people and sheep as valuable?

We are not seeking a subsidy, but indemnity, restitution. The most painful thought in this connection is the terrible fact that so many people are bitten by dogs, some of which are "mad dogs." Then, the anxiety, the pain of body and mind, and the costs, and possibly the uncertainty of a permanent cure. All these considerations call for prompt relief. S. T. PETTIT, Elgin Co., Ont.



Commodore =77697=.

Shorthorn yearling bull, sire Prince Imperial; grand dam Helen 23rd, by Imp. Merry Master. This young bull's sire and dam were both out of the same cow, Helen 21st (imp.). Owned by John McKenzie & Son, Columbus, Ont.

CHINESE PORK BUSINESS.

In spite of much press ridicule, "Chinese pork" must now be considered an established business in England. Three thousand six hundred and forty-seven Chinese pigs arrived recently on one vessel, and many more are on the way. The pigs are stated to be of Poland-China breed. They are too large to cut up for pork, and so are used in bacon-curing. There has been considerable opposition to these importations on account of pigs in China being the scavengers of the country, but the health inspectors have passed them as fit for human food.

Lambing reports are good, though not uniformly, as rather heavy losses are noted in some districts, and abortion has been more prevalent than usual.

Then Who Will Feed the Hungry?

Editor "The Farmer's Advocate":

We read a lot about the high price of meat, and combinations forming to force the price down, mostly by the laboring class. That will affect the farmer. Suppose farmers join together and refuse to buy the machinery that these men make? What will be the outcome? Who will be the worse off, the laborer or the farmer? In my mind, these combines are not in the best interests of the country. They are the forerunner of hard times. If meat prices go too low for profit, farmers will go out of the business. Then, whom will they go to when hungry? E. M.

In the long list of winners of sweepstakes prizes at the great Essex Corn Show, the first and most important four are as below: Best ten ears of dent corn in the show—Wm. Woodbridge, Kingsville; best ten ears flint corn in the show—Ed. Smith, Ridgeway; best single ear of dent corn in the show—Leonard Malott, Kingsville; best ten ears of corn suitable for ensilage purposes in Central Ontario—Philip C. Fox, Leamington.

A Timely Labor.

Just now, the farmer who is anxious to increase the yield per acre of his farm is busy getting his seed ready. Any farmer is prepared to admit the importance of sowing good seed, but it is only too self-evident that not very many take anything like the care they should to sow grain that is strictly clean, of fine vitality, and of strict purity.

Happy is the farmer who just now has a fine bin of his own grain from which to choose his seed. This should be carefully screened in an up-to-date mill. Even then, it will be all the better to make a second selection for seed purposes for next year. Time will be well spent in going over this second lot handful by handful, selecting only the grains that come nearest the type desired for harvest next autumn. What is true of the grain crop is many times truer of the potato and corn crop. It is a waste of time to sow seed that is not vital, and this is the season in which the vitality of seed should be discovered. That discovery is made too late when it is not made till the time of planting. A very simple method is to take a definite number of grains from the seed to be tested, and to plant them in a window box. Actual results will demonstrate the percentage of vitality.

All of this work is rendered doubly necessary when one buys his seed. Too great care cannot be exercised in buying seed from only reliable vendors. Even, however, when the farmer has exercised due precaution, he sometimes finds that his judgment of men's uprightness has been defective, and that the purchased seed is not up to the mark. It is far better for him to make this unwelcome discovery before he sows than after his grain is in the ground. In a matter so important as this, only the farmer's own first-hand, painstaking labor will avail.

The seed selected should be measured, labelled, and placed where it can be preserved and got at when it is wanted. The labelling is an important part of the process, as an unfortunate mixing of seed or the using of the wrong seed has resulted in annoyance and serious loss.

Paying attention to these directions will yield fine returns. It will mean a larger bin of grain, and a grain that will test high. It will mean, too, that the grain or roots, instead of "running out," will steadily improve. Indeed, in a very few seasons, this careful selecting of seed will produce a variety of grain so much better than the original that the owner will believe himself the discoverer of a new variety. The wide-awake farmer will be wise to begin as high up the good-seed ladder as he can, by selecting the best grain he can procure.

Cultivation has a great deal to do with results, but just now the farmer has the opportunity of selecting his seed. Cultivation will come later on.

O. C.
York Co., Ont.

World's Wheat Statistics.

A French view of the world's wheat supply has been compiled by Achille Guillard, who claims that the word "famine" might be scratched out of the European dictionary. So settled is the supply that a rise of 4 frs. per cwt. in wheat suffices to astonish and alarm everyone. France consumes about 330,000,000 bushels of wheat, and produces almost as much, and usually exports from \$5,500,000 to 11,000,000 bushels. France has an import duty of 7 frs. per cwt.

England stands at the head of the countries which do not produce enough wheat for their requirements. The British production is given as 60,250,000, and her imports as 173,250,000 bushels. German production is 143,000,000 bushels, which leaves about 70,000,000 bushels to be imported. The United States stands at the head of producing countries, with 712,000,000 bushels. Russia produces 451,000,000, and India about two-thirds as much.

M. Guillard does not believe that famine will ever come again in Europe, as it has so often done in the past. The sources of the wheat supply may change, but the requisite quantity is produced year by year.

COST OF BREAD.

All manner of statements regarding the cost of bread in protected countries have been made during the British general election—all designed to prove the particular belief of the partisan. Mr. Broomhall, the wheat statistician, has a letter in the press giving concrete figures as to Italy. Italy is a wheat-eating country, and in 1900 adopted a tariff on wheat of 12s. 7d. per quarter of 480 pounds. In the decade since, the following changes have occurred: The native crop has increased by ten per cent., importation of foreign wheat by 17 per cent., and the price of bread by 100 per cent. Italy raises four-fifths of her wheat, and imports one-fifth, principally from Russia. The Italian consumer now pays over £15,000,000 per annum on account of the wheat-import tax, of which £3,000,000 goes to the Government in relief of taxation, and £12,000,000 into the pockets of those who raise wheat. The wages of agricultural laborers are lower in Italy than in any other great country of Europe.

Cement Tile—Hydraulic Ram.

1. I have about two hundred rods of ditch which will require 6 or 7-inch tile. Would it be cheaper to purchase moulds and manufacture them myself of concrete? About what proportion of cement and coarse sand should be used?

2. Have a spring about 50 rods from buildings, with a large flow of water, which can be raised five feet or more above surface of ground. By using an hydraulic ram, can water be forced to buildings, buildings being about 15 feet above level of spring?

3. What would be the best method of raising water in order to give sufficient fall to drive ram? How would a concrete tank do, and how large in diameter?

4. Should the outflow be from bottom of tank, or from near top?

FARMER.

Ans.—1. Cement tile should not be made weaker than 1 of cement to 4 of sand, and they should be made as wet as possible. It is doubtful whether there would be anything to be gained by making such a small number of the cement tile, instead of buying the clay tile. You would have the outlay for your moulds, the getting of things in shape for the manufacture, and then, besides, there is considerable to learn about making cement tile properly, and therefore the tile made at first would not be up to standard, and would not be likely to give satisfaction, and might have to be discarded.

2. Water can be raised to the buildings by means of an hydraulic ram.

3. It is difficult to answer this question without knowing all the circumstances connected with the case. Under certain conditions the cement tank would be all right. The diameter of tank makes no difference to the efficiency of the ram, and should be determined according to conditions. A method often used to get fall is to dig a hole and put the ram at the bottom, the overflow being provided for through an open ditch or a tile below the ram.

4. In case a tank is used, the outflow should be from the top, as you have just that much more fall in the pipe, and it is really the fall in the pipe that counts with the ram.

W. H. D.
O. A. C., Guelph.

A Well-managed 45-acre Nova Scotia Farm.

The farm was just forty-five acres, and was situated in a locality where large farms were the rule; in fact, those 45 acres were attached at one time to one of those large farms, and, owing to the vicissitudes of life, were all that was left to the young man who owned it. It was at an age when friends were advising him to go into professional life (the legal profession being the one chosen), but a natural love for outdoor life, and a fondness for live stock of all kinds, induced him to remain on "the little bit of land" that was left to him when the claims of a bad business deal were cleared away.

The situation was good, being near to a first-class market for all kinds of farm produce, in the mining district of Eastern Nova Scotia. The owner was clear-headed and energetic, and wisely decided to adhere to the line of farming that would bring the quickest returns, and at the same time add to the fertility of the farm. Mixed farming was chosen, with dairying as an important part. It took considerable studying into all the conditions before this was decided upon, on account of the limited area that could be devoted to pasturage, but, after fifteen years' farming, the wisdom of this decision is verified. The farm was divided as follows: Five acres in woods, five in natural meadow, five in buildings and orchard; the remaining thirty acres were divided into four fields of about 7½ acres each, and kept under a four-year rotation, about as follows: First year, roots and corn; second year, grain; third year, grass; fourth year, pasture. Eight high-grade Jersey cows are kept on this small farm, and the heifer calves are reared, and as they are always sired by a pure-bred bull, find a ready sale as soon as they come into milk, or are used to keep up the efficiency of the herd at home. The five acres of meadow has been in hay for twenty-five years, and seems to do better every year. A large brook runs along one side of the meadow, and overflows its low banks in spring and fall freshets; and, to prevent washing, the land is never plowed, as otherwise might be done. About every second year this meadow receives a light top-dressing of barnyard manure, which, with the deposits left by the overflow, insures a heavy crop. Sometimes a dressing of commercial fertilizer, generally bone-meal, is used instead of barnyard manure. The quantity of hay cut on this meadow averages fully three tons to the acre, and is a mixture of timothy, clover, bluepoint and brown-top (locally so called), and much relished by the cattle and horses. Occasionally this meadow is seeded early in the spring, before the frost is out, with timothy, alsike and red clover. After the hay is removed, and during the months of September and October, the milk cows are allowed on the meadow, and are greatly benefited thereby, and do not seem to hurt the next season's growth.

As soon as the cows are turned on this meadow, the summer pasture is plowed and thoroughly harrowed. Sometimes it is ridged up late in fall, but more often is left smooth. The manure is drawn to this field at intervals through the winter, and as soon as dry enough for the team to work in the spring, this land is disked or well harrowed with a sharp, spring-tooth harrow, and the land put in shape for roots and corn. A very small quantity of commercial fertilizer is used to give the crop a good start, and to help out the barnyard manure, which is somewhat limited in supply. The roots (chiefly turnips) are stored in the barn cellar, and the corn fed from the stook in late fall. After the roots and corn are harvested, the land is not worked any more until the following spring, when it is again disked and sown to grain, generally a mixture of oats, barley and peas; sometimes wheat is added. This is allowed to ripen, and, when threshed, is ground for feed, the straw being used to feed the dry cattle, considerable of it being fed to the horses in the idle season. As soon as the grain is removed off the field, it gets a good dressing of barnyard manure, and no animal is allowed on the field, which gives the young grass and clover a chance to grow somewhat before the winter sets in. Every year sees an improvement in the quality and quantity of hay following this rotation. If more land were available, two crops of hay would be raised on this land, but it is needed for pasture, which makes the fourth year in the rotation. At first a good deal of rough feed had to be purchased, in order to keep up the required number of live stock, but for the last six years everything needed was produced, except some wheat bran and a quantity of oil cake to balance the grain ration.

When the present proprietor took hold, there was an old orchard on the farm. This has been entirely renovated and mostly top-grafted, and, next to the dairy, is the best-paying proposition on the farm. The revenue of this farm is derived from butter, which is delivered weekly to private customers, and sold the year round for twenty-five cents per pound. A high standard of performance is set, and cows not coming within reasonable distance of that standard are turned into beef. So closely is this watched, that the owner can tell you to a cent what each cow is worth to him. The surplus cows are eagerly sought after by families in town who keep a cow for their own use, and always at remunerative figures.

The work done on this farm is done by a pair of grade Clyde mares that were purchased as three-year-olds fifteen years ago, and, besides doing all the work, also raise a colt year about, or, to be accurate, eleven colts in fifteen years. Those colts are sold when weaned, and add quite an item to the revenue-producing power of the farm.

Asked as to the advantages of a small farm, like the one in question, over a larger one, the owner replied: "Except in the busy season, I do all the work myself, so that the money earned can be kept at home, which, on a large farm, would have to be paid in wages; and that on a small farm, by giving his whole attention to the work in hand, he could make one acre produce more than two acres did on a large farm, when hired help was depended on."

As butter has to be delivered to customers every week, a point is made to have something else to go along to make up a load. Garden truck, grown in the orchard, principally—early potatoes, rhubarb, peas, strawberries, apples, all in their season, go to make up the item that has helped the farmer to build up a home that a city man might envy, and also lay up a snug sum for old age.

The poultry-yard is not neglected, and a nice flock of White Wyandottes are kept, and a supply of eggs are regularly sent to market. The chickens are hatched early in spring, and the pullets are brought along to encourage winter laying, while the cockerels and older birds are fattened for the market. This is the goodwife's part of the business, and she claims it is the best-paying part of the farm.

Space forbids going any further into detail, but this 45-acre farm is an object-lesson to the whole locality in which it is situated, and many of the larger farms are being cut down to allow their owners to dispense to a large extent with unsatisfactory hired help.

The greatest drawback to the owner of this small farm is that the small acreage under pasture does not allow him to keep sheep, as he believes—and rightly—that a small flock of sheep, well kept, would add greatly to the profits, without materially increasing the labor.

Pictou Co., N. S. ANDREW McPHERSON.

P. H. Bowyer, M. P. P. (East Kent), has presented in the Ontario Legislature a bill designed to enact that every municipality shall impose a tax of \$1 on each dog, if one only is owned or harbored, \$2 on each additional dog, and \$5 on every bitch. The object of this bill, Mr. Bowyer stated, was to reduce the number of dogs, and especially aimed at the number of useless and vicious curs owned and harbored throughout the Province, a menace to the sheep industry and the people.

An Ideal Ear of Seed Corn.

At the Essex Corn Show, at which Prof. Klinck, of Macdonald College, Que., was judge and principal instructor, the topic chosen by him for his lectures and practical demonstrations was "The Ideal Ear of Dent Corn."

Other important phases of the corn question, such as cultivation, soil improvement, drainage, etc., were merely mentioned, and left for other speakers to deal with. But day after day, to crowds whose interests grew, rather than diminished, he discoursed on the one theme—the most desirable type of ear. It will be seen that the statement made by Prof. Klinck, in his first address, that "Corn can be made an attractive object of study," was abundantly justified.

Before getting right down to an examination of the ear itself, Prof. Klinck gave some valuable hints in regard to the selection and care of seed corn. Three things ought to be kept in mind, he said, in selecting ears for seed: the ear, the stalk, and the surroundings. Too often those that were picked out for seed at husking time, though the finest specimens, were not the most valuable. They had, in most cases, had an extra chance, as, for instance, when they had grown on a stalk that stood alone in a hill. A better plan was to select the best ears of those grown under ordinary conditions. The stalk should be of fair height, and strong enough to support the ear. For the latter purpose, it should be strong at the base and taper slightly, rather than carry its thickness all the way up. The ear should not be too high up on the stalk, for then it would be too late in ripening; nor yet too low down, else there would not be yield enough. There is a close relation between height of ear and time of maturity.

It is not prudent to trust to crib corn for seed. Seed corn should at once be put where it will dry. There should be free circulation of air around each ear. If dried, and kept dry, it will not be injured by frost. It sometimes happens, however, that corn which has been dried properly may afterwards gather moisture sufficient to cause it to be injured during zero weather. It is important not only to dry, but to keep dry. An extra supply should always be stored, so that reselection can be made before planting. Another point: grow corn suitable to the locality. The majority of men are inclined to grow corn that is slightly too large and late.

REGULAR ROWS OF KERNELS.

The rows on an ear of corn should be regular. There should not be an extra number at the butt, nor a few rows dropped towards the tip. This is not a fancy point, merely. Regular rows mean more corn. The kernels should be fairly uniform throughout. The kernels towards the tip are always smaller than the others, and show less dent, and those near the butt are also less dented, but are thicker and heavier than the average, but an accentuation of these differences is to be avoided.

SHAPE OF EAR.

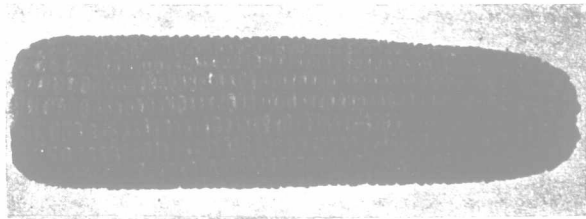
The most important part of the ear is the central portion. That is where most of the grain is found, and it should be full and strong. Shapes to avoid are the cylindrical—those of the same thickness from butt to tip—allowable in flint corn, but not in dent; the too-tapering—in these the yield is diminished—and those with enlarged butts. The ideal ear is strong in the center, tapers slightly towards tip for about three inches, has full, rounded butt, and full tip. Too exclusive attention in selecting seed ears to having butts and tips well covered, without due regard, also, for proper length of ear, will result, has resulted in known cases, in unduly shortening the ear.

LENGTH AND CIRCUMFERENCE.

The best length for an ear of dent corn is from 7½ to 9½ inches, and the circumference, measured at one-third the distance from butt to tip, 5½ to 7½ inches. In dent corn there is a certain ratio between circumference and length which is best; circumference should be three-quarters of length.

INDENTATION.

A fair measure of indentation is desirable. A mere circular dimple indicates too short a kernel, while those that are extra pinched are too late in maturing. Exceptions there are, but the rule is that the date of ripening can be judged fairly accurately from the depth of the dent. The length of the kernel can also be judged from the denting. The deeper the dent, the longer the kernel, as a rule.



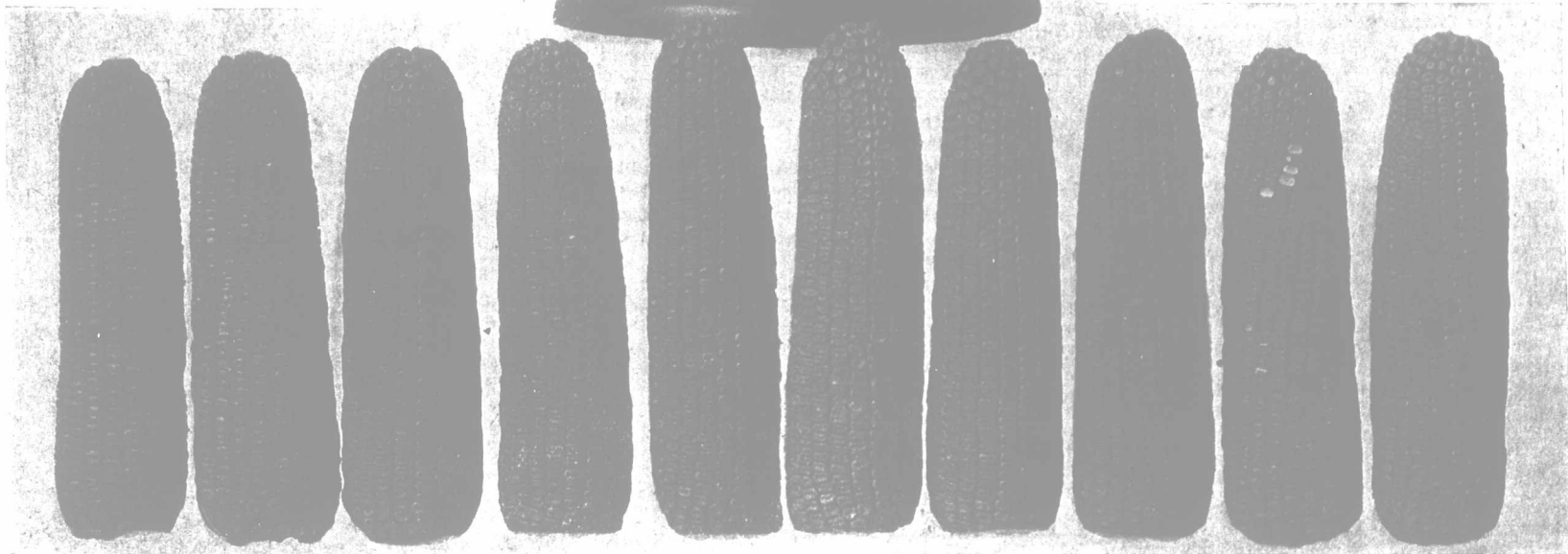
Champion Ear of Dent Corn.

SHAPE OF KERNEL.

Prof. Klinck's words, in describing the best-shaped kernels were that they should be of broadly-rounding, wedge shape. Such were best for either seed or feed. The very wide, with much-rounded edges, were to be avoided, and, on the other hand, those of the shoe-peg type were also undesirable. The sides of the kernels should be slightly rounded, with width carried well up to a square shoulder, the point plump. The germ is towards the point, and is the part of the grain richest in oil. It will usually be found that a kernel which appears pointed when looked at from the side, appears pointed when viewed edgewise, also. Such grain is low in feeding value and weak in germ. The germ should run well up towards the upper end of kernel, and should be thick through.

VITALITY OR SEED CONDITION.

Some corn, on being shelled, shows a black



Champion Ten Ears of Dent Corn, Ontario Corn-growers' Exhibition, Essex, 1910.

spot over the lower end of germ, and some people, said Prof. Klinck, think that such grain has been injured, and will not grow. Such is not the case. All corn has this dark covering over the lower end of the germ, but normally, it is covered with a tip cap, a sort of hull. When the black spot shows, it simply means that the tip cap has adhered to the cob in shelling. This is an objection, however, as it indicates immaturity. When planted in cold, backward seasons, such seed would be more liable to rot, as the tip covering being removed, the moisture would too readily enter the germ, and cause it to swell before growth started. In ordinary seasons, scarcely any difference would be noticed. As anyone may observe, on examination, the germ is on only one side of the kernel; the other side is called the back. Blistered germs, unless caused by rapid drying, and blistered backs, are the strongest evidences of impaired vitality. There are other signs by which impaired vitality may be detected, but the germination test is the only absolutely reliable one. In testing seed corn, always leave it until the upward sprout comes strong. The root sprout, which appears first, may seem to be all right, while the other may be weak or fail to grow. When germination test is made by laying grain on surface of damp sand, to be afterwards covered with a damp cloth, it is well always to lay all kernels with the point towards you, and the germ side up. On removing the cloth, the condition as to germination can then be seen at a glance.

Our illustration of the sweepstakes ear at the Essex Corn Show, and of the sweepstakes ten ears, will probably convey to most readers a clearer conception of Prof. Klinck's ideal dent-corn ear than all the paragraphs that might be written.

Study Local Conditions.

We hear a good deal at present, said the President of the Ontario Corn-growers' Association, in his opening address at the Convention, in Essex, about the great development of Ontario, but by that expression is usually meant commercial development. That is all right; it is necessary. But of far more importance than that is the development of the people, the raising of the standard of intelligence and knowledge generally.

He had heard that in Texas peanuts were grown so that they might be plowed under as a manure for corn. In the State of Connecticut it had long been a practice to manure for corn with fish. We can't grow peanuts, and we have not the fish for manure, but we can learn from these people to study local conditions, and make the best use of what we have.

Essex County suffers from an excess of moisture. We are to have Prof. Day to talk to us on the benefits of underdraining. There is no subject more important to us. Land that is now reckoned the very poorest would be the most valuable if drained. In some cases it would be quadrupled in value. Below the surface soil there is a great reserve of fertility in our rich clays that we have not yet drawn upon.

On February 15th, a month's course in agriculture was started at Collingwood by the agricultural specialist, I. F. Metcalfe. Mr. Brown, the principal, and most of the members of the school board, were present at the opening exercises, and gave addresses that were both interesting and instructive. There was a good attendance of students at the start, which augurs well for the success of the course. More students are still coming in.

Further Points from the Seed-growers' Convention.

We give below a synopsis of addresses at the recent Canadian Seed-growers' Convention in Ottawa, for which we had not space last week.

PLANT-BREEDING.

Dr. Jas. W. Robertson, in introducing Prof. C. A. Zavitz, said his thoughts expressed themselves in plants. The Experimental Union was an expression of his effort, and indirectly it effected an improvement in all rural conditions. Prof. Zavitz, in introducing his subject, "Heredity in Plants, and its Bearing on Agricultural Problems," said that heredity applied to plants as well as animals. He referred to the work of De Vries, Davenport, Burbank, Garton Bros., Dr. Saunders and son, Hayes, Groff, Biffer, Webber, Neilson and others, in plant improvement. Mendel, an Austrian monk, evolved the Mendel theory.

Prof. Zavitz urged both the plant-breeder and farmer to study closely the character of the variety he was growing. He showed how the Red Fife wheat originated, by getting one plant from a sample of fall wheat that David Fife had sown in 1842, in mistake for spring wheat in Durham Co., Ont. Only one plant became the origin of the most universally-known and celebrated spring wheat to-day, and sown in largest quantities. Mr. Dawson, in Western Ontario, saw in his field of White Dawson wheat which had lodged very badly, a plant that stood up straight, and had a peculiar velvety look in the chaff. This one plant became the origin of Dawson's Golden Chaff fall wheat, which has been of so much value to Ontario. There were three methods, the speaker said, by which improvement was made: (1) By making a collection of plants; (2) selecting an individual plant; and (3) the breeding-plot method by cross-fertilization. The Canadian Seed-growers' Association adopted the first method, and his Station and others the last two methods. In 1903, by saving the seed of one plant, in three years the product was 40 bushels, which became the O. A. C. No. 21 barley, which has succeeded so well of late. In reply to a question, he thought the tame oat and wild oat might possibly cross, but it would be impossible, in his opinion, to have both wild and tame oats produced in one plant.

H. H. Groff, of Simcoe, Ont., read a very interesting paper on "Hybridizing the Gladiolus: Are Its Lessons Possible of General Application?" Every variation in plants, he claimed, had a certain cause. We must learn to know what we are working with, and what we are working for. In his improvement of the gladiolus, he worked on mutations, and tried to infuse new and vigorous characters in weak plants of promising beauty. A London, Eng., paper had said of his selections, that he had added to their beauty and constitution, and had cheapened the seed. He had produced gladiolus half white and half scarlet on same stalk. He said that four years ago he had crossed two varieties of sweet corn, the Black Mexican and Golden Bantam, the stalks of which grew to a height of 6 feet and 4 feet, respectively. The cross is a yellow-colored corn, growing eight feet high, and earing well. The ancestry of the Golden Bantam was detected in the presence of some white kernels in the hybrid. Several speakers bore testimony to the marvellous achievements of Mr. Groff in gladioli.

POTATO SELECTION AND ROT.

Wm. H. Taylor, of St. Giles, P. Q., gave the results of crop-raising, with special reference to the potato. By throwing out diseased tubers, he had, in a few years, grown a type of Snowball potato practically immune from rot. The seed is selected at digging time. He used buckwheat as a preparatory crop for potatoes, using buckwheat last week in June, when ground is warm, to start quick growth. The Government, he urged, should promote drainage, the lack of which caused Quebec Province a loss of at least \$1,000,000 a year.

Prof. Macoun said, when it was considered that the average yield in Ontario was only 111 bushels per acre, and in Great Britain and Ireland, on poorer soil, double the yield was secured, and the possibilities were 1,000 bushels per acre in Canada, the chance for improvement was wonderful. The later varieties were most resistant to blight. The early varieties should be planted very early, and the late ones very late, the former developing ahead of the disease, and the other avoiding it.

G. H. Clark reported his observations on the work of a Swedish investigator, which went to show that after some twelve years from the seed, potatoes began to lose their disease-resistant power.

Mr. Raynor cited Ontario growers whose tubers had preserved their good qualities after over 20 years of continuous growing.

PITH OF VARIOUS ADDRESSES.

E. S. Archibald, of the Agricultural College, Truro, N. S., reported that substantial progress was being made in Nova Scotia, their greatest need being agricultural education, towards which the Seed Association was rendering valuable aid.

In mixed grains, Daubeney oats and Mandscheuri barley gave the best results in measured bushels and weight at the College Farm.

One grower, by selection in flint corn for a few years, had increased its earliness by ten days.

Prof. Klinck reported much earlier ripening from thickly-sown oats, which also stooled more freely.

Dr. C. E. Saunders said that the rainfall probably had a considerable influence upon the stage of ripening. Like Prof. Klinck, he found Garton's Regenerated Abundance was a stalling oat.

Prof. Zavitz and Mr. Archibald agreed that mixing grains of like ripening periods gave a much greater yield of bushels per acre.

Prof. F. T. Shutt threw out the suggestion that the quality of Northwestern wheat was not altogether due to soil fertility or heredity, but to climatic conditions, which varied with districts and years. The more starchy wheat came from the moister soils. Hence, "dry-farming" gives more glutinous wheats than on irrigated lands, though the yield will be less.

Otto Herold, of Waterloo, Ont., delivered a valuable paper, showing the practicability of producing field, root and vegetable seeds of superior quality in Canada, and pointing out the measures to be taken to promote so important a work, in which the Association could materially assist.

Donald Innes thought that when more and better tomatoes could be produced from home-grown seeds, surely other vegetable seeds could be produced in Canada.

Prof. Macoun thought the mother plant needed a rich soil to develop strength to produce the seed.

G. H. Clark thought the Canadian climate was superior to that of Europe for seed-growing, but what we lacked was the qualified labor to do the work. Mr. Herold was being very successful, but the question was whether he could produce the seeds to sell in competition with the European-grown seed, in cheapness. In Germany, many growers still adhere to the plan—mass selection—of the Canadian Seed-growers' Association, or in modified form in seed improvement. He commended as a policy for this Association the supplying of members with foundation seed stock developed from a plant of outstanding merit.

Prof. C. A. Zavitz's paper on the foregoing subject indicated the comparative superiority of Canadian home-grown mangel seed in germination.

Mr. Herold thought that farmers might make a return of \$100 per acre growing seeds for the trade.

Seed Commissioner G. H. Clark gave an able paper describing the European methods of seed selection in the improvement of field crops. He announced that the Seed Branch would be prepared to bring a man capable to supervise such work in Canada, for those who would undertake it.

Dr. Chas. E. Saunders commended the method of selecting from single plants.

Prof. Klinck said they had been selecting the largest and best heads in the work on the Macdonald Farm, with promising results thus far.

Principal W. J. Black, of the Manitoba Agricultural College, expressed how deeply he was impressed with the meeting, and particularly with the young men assembled, who were trustees for agricultural posterity in Canada.

Theodore Ross, of P. E. I., gave an encouraging report from the Island, and the improvements being made through the aid of the Seed Branch and the Seed Division.

T. H. Woolford, of Alberta, who had given up his large farm, was going to devote forty acres to the work of seed improvement.

Effects of Weather on Crop Yields.

(English correspondence.)

Some investigation has been attempted in England by Dr. Shaw on the effects of weather on crop yields, but a much more elaborate test has been made by Dr. Lazarenko, in Russia. He claims that the yields of both winter and summer cereals depend directly on the amount of rain during the period of growth, and, inversely, on the sum of the temperatures during the period; that is, plenty of rain and not too high temperatures produce big yields of cereals. The yield of winter grains depended mainly on the rainfall during September and June—the period of germination and early growth, and of intensified growth and heading. The yields were inversely to the temperature during these months. Hot Septembers and Junes resulted in low yields. Dr. Lazarenko found, also, that spring-sown grains were largely influenced by the rains of the previous autumn; spring wheat by previous September rain, and spring barley by previous October rain.

We do not answer questions for non-subscribers. An inquiry, to receive attention, must be accompanied by the full name and address of a subscriber, not for publication, but as an evidence of good-faith. We print only the initials of inquirers' names, and not even those, if requested otherwise, but the full name and address of a subscriber must accompany the query.

THE DAIRY.

Cool Your Cream.

It is admitted by all our leading dairy authorities that one of the greatest needs in our creamery industry is the thorough cooling of the cream by the patrons immediately after it has been separated. No intelligent person who knows anything about this phase of dairying would dispute this assertion.

Since the introduction of the hand separator on the farm, the quality of the cream furnished by our patrons has greatly deteriorated. This is not the fault of the hand separator. The separator is a useful implement in any dairy. It is true, however, that before the introduction of the hand separator farmers stored away ice for the sole purpose (as they thought) of separating the cream from the milk. While this ice was harvested for one purpose, it in reality fulfilled two very important uses. It not only assisted in separating the cream from the milk, but it also cooled the cream.

The fact that patrons thought the necessity of securing a supply of ice had been solely for the purpose of separating the cream from the milk, led them into the serious mistake of abandoning the practice of putting away ice altogether when they purchased cream separators. Herein lies the real cause of the deterioration in the quality of our cream since the introduction of the hand separator among our patrons.

To all who are patrons of our creameries, let us say that it is not only your duty, but it will pay you in good honest Canadian dollars and cents to cool your cream. If you neglect this important phase of your dairy operations, you cannot expect your cream-drawer or buttermaker to be able to secure a proper sample of your cream for testing, because it will be too thick and sour for him to obtain a representative test sample; therefore, you lose in dollars and cents. Again, if you do not cool your cream properly, you cannot furnish your creamery with good cream. If you do not furnish good cream, your buttermaker cannot manufacture a good quality of butter. This means the highest market price cannot be obtained for that butter. Here, again, you lose dollars and cents by not cooling your cream.

In selecting the best method of cooling the cream, the farmer must be guided by the conditions existing on his own particular farm. Many farmers have cold springs, others have windmills. Where either a spring or windmill is available, the cream can be thoroughly cooled in the following way. A small covered box is arranged in such a manner that the cold water can flow continuously through it. The water should enter by a pipe at the bottom of the box, and should leave by another pipe in the opposite end, situated at the top. The box is thus kept filled with a continuous supply of cold, running water. It should be made large enough to hold shotgun cans to contain all the cream. This arrangement will be found quite satisfactory for cooling the cream. If you have neither a cool spring or cold windmill-drawn water, then it is not only your duty, but good sound business sense to put away sufficient ice each winter for cooling the cream down to at least 50 degrees F., or under.

In conclusion, we would say that no patron should find any fault whatever with the creamery, so long as he himself is guilty of neglect in caring for his cream. If you are not cooling your cream properly, find fault with yourself, and then remedy the fault.

Perth Co., Ont.

M. ROBERTSON.

Paid Him to Feed Balanced Ration.

Though the balanced-ration idea may have been pushed too far by extremists, who reduced feeding problems to a basis of mathematical quibbles, while failing to accord due weight to such important, practical points as succulence, palatability and wholesomeness, nevertheless, it has a solid basis in fact. While nobody knows exactly what is a perfectly-balanced ration for any animal, while the needs of individuals differ, and while other factors enter to complicate the problem, still there is no gainsaying that economy demands attention to the compounding of rations, to insure that they will contain not only a sufficient total amount of digestible nutrients to leave a surplus over maintenance, but that a reasonable proportion of these nutrients shall consist of the indispensable element protein, which enters so largely into the composition of blood, flesh and milk-solids. We have yet to hear of a cow making a great milk record, or of a herd yielding a high yearly average of milk, that was not fed a tolerably well-balanced ration.

Both experiments and everyday feeding practice have demonstrated the wisdom of making reasonable effort to feed approximately-balanced rations, purchasing, when necessary, feeds rich in protein, such as bran, oil cake, gluten meal, cottonseed meal, or peas. The writer recalls hearing his grandfather remark once, years ago, long before balanced rations were talked about, that he had never had better results in milk production than

when he fed a few peas. He didn't know why, but if he could have consulted Henry, he would have learned that peas contain 16.8 per cent. of digestible protein, as compared with about 8 per cent. in corn, 8.7 in barley, and 9.2 in oats. Oil-cake meal carries 29.3 per cent. of digestible protein, and cottonseed meal 37.2 per cent., while wheat bran (a much less concentrated feed) possesses an average of about 12.2 per cent.

As the average ration of farm-grown roughage is more or less deficient in protein, it is usually profitable to purchase feeds containing a high percentage of it, or, better still, to supply it by growing clover and alfalfa, the former containing 6.8 per cent. of protein, and the latter 11. per cent., or about nine-tenths as much as wheat bran. Allowing for the greater percentage of crude fibre, and for the fact that it is not always possible to cure the alfalfa into first-class hay, we are still safe in calling it worth probably three-quarters as much per ton as bran for feeding along with corn silage. Indeed, many dairymen obtain excellent results from corn silage, alfalfa hay, and very little of anything else.

Just by way of convincing skeptical readers that we are not talking or writing "hot air" when advising the use of balanced rations, we append a note received the other day from a Lambton County Subscriber. Early in the year he had written us, propounding this query:

"Having on hand abundance of corn, barley and oat straw to feed milk cows, will it pay me to sell the barley and buy bran, in order to have a more balanced ration?" In reply, we advised him to sell the barley and buy bran and oil-cake meal, and suggested a ration devised according to his probable needs. Writing a month or so later, when his cows might naturally be expected to have shrunk in their milk flow, he says:

"I have followed your advice, and, as a consequence, my cows are now giving about ten pounds more milk per day on cheaper feed than they formerly had."

Instructive Account of a New Brunswick Herd.

TIE FOR SECOND PRIZE IN ESSAY COMPETITION.

In response to your invitation of a short time ago, I enclose you individual records, expense account, service and calving tables, and monthly account of butter churned from our herd of seven cows during 1909.

In complying with your request for an account of care and feeding, I must, in a large measure, repeat my former letter, forwarded with our herd record in the early summer. We aim to fill our cows comfortably every day in the year, and do our best to make that filling as succulent and palatable as possible.

For winter feed, the only crop we have been at all successful with is Swede turnips. We have never yet been able to raise as many as we would like to have. For that reason, perhaps, the feeding of them has never been objected to in the slightest degree by any of our customers. I weighed the evening mess as it sat in the baskets, and found we were feeding just 25 pounds per cow per day. In the year under review, we fed that from the first of the year until the middle of April, when the supply ran out. We began on the new crop about the first of October, first feeding tops and all, an early variety, known here as the "lazy-man's turnips," following with the tops of the Swedes, and then the Swedes themselves. In making up the account, I counted the days from first October to April 15th, counting the tops as though all were turnips. For summer feed, we sowed 168 square rods of peas and oats, in four sowings, the first May 13th, the last about the end of June. In addition, we planted one-quarter acre Longfellow corn May 31st. By the time we began to feed the last sowing of peas and oats, the corn was also ready, and we fed one in the morning, and the other at night, until peas and oats were gone. About the middle of September I cut what corn was still standing, and put it up in large stooks, and it lasted until the end of the month, when we began at the turnips, as noted before.

Ontario farmers glorify corn, but we get little satisfaction from it. When we get a good stand, we have a lot of feed per acre, and it is at its best when other feeds are failing; but when our cows are offered it in lieu of the peas and oats they have been getting, they are simply "mad" clear through, and show it as plainly as though they were humans; some of them will hold their milk up, and all shrink in their flow, in spite of extra grain. A lot of the stalks are refused utterly, and have to be thrown in the yard, where the pigs chew them, and, I suppose, get some little good from them.

In addition to the feeds I have noted, and what hay they will eat up clean, we give them grain sufficient to keep them in good condition. Our average at present is six pounds per day for a cow in full flow in the winter and early spring. Some outlanders require a little more. We have never exceeded eight pounds; only touched it for a few days on two or three occasions. As spring

advances and grass starts, we gradually slacken off, and the greater part of June they get only a taste, because they look for it, and it seems to pay to humor a cow. Towards the end of June we have to increase again, until, about the middle of July, they will be getting about four pounds; then peas and oats come on, and we can almost dispense with grain again for a time. After two or three weeks, however, we must again increase the grain, and from the tenth or middle of August on they will get about four pounds, until, on turnips, they begin to put on flesh, and we cut down to two pounds, which is our regular stripper's ration.

We feed hay three times per day, other feeds twice. We water once a day, in the middle of the day, turning the cows out to go a few rods to a brook, and "stand on their heads" to drink "ice-water" out of a hole, as your Quebec correspondent put it. However, the boy cuts the hole open before he turns them out. We don't have to chase them around for exercise; they attend to that themselves; even the staid old matrons of the herd scamper and frisk, showing plainly their appreciation of the outdoor air. Certainly, there are a few days when they are not so playful, but sneak back to their stalls in a hurry; and for those few days it would be very nice to have the water-bowls which our Quebec friend admires.

Our stable furnishes no June conditions, as the manure freezes slightly on the coldest nights, but we do not milk with mittens on, and I have yet to see a cow showing any sign of discomfort because of the cold.

In the summer, we have the world for a pasture, free of charge, except that for a time, from about the first of June to the middle of August, we must "hunt" the cows. After that, the taste of peas and oats comes to their mind along in the afternoon, and they drift toward home. At night we keep them enclosed on a bit of rough land, which we could probably rent for colt pasture at the price I have put upon it in the ac-

count. Some objection may be raised that I have put the price of attendance too low, but I find I can spend nine hours in the field and two with the cows at least as easy as ten in the field. Also, a hired hand will not object to an eleven-hour day that is two or more hours of this lighter work, and it does not seem to me that it should be charged with a full man's wages for the time that is spent at it. The churning I do myself, and it is a real rest for me, all except the short time that the churn is going. It may also be objected that I have valued the manure too highly, but I am confident, from the crops I raise with it, and what I know from experience they would be without it, that I am within the mark. I hope to do a little experimenting on this point next season, and will give "The Farmer's Advocate" the benefit of what I learn. So our paper sets us thinking.

Our cows are Jerseys and Jersey grades, with one exception, No. 3, which is a high-grade Ayrshire. Now, I know you will have articles from dairymen with big Holsteins, who will be able to show a larger make per cow. Also, your Ontario men have the advantage of cheaper feed, and many of them near access to gilt-edge markets in city or town, and can show much larger profits. But how many, even of those who can favor their cows with "June conditions" all winter, can show more butter for food consumed?

I have given you exact facts, as far as I know the facts, and, where compelled to estimate, have done my best to do so fairly. Our butter sold as follows: January, 26c.; February, 25c.; March, 24c.; April to September, 22c.; October to December, 25c. Being thirty miles from any large market, we must sell largely through the local

store, but it goes to a line of special customers, and brings us about two cents above common local prices. Along with its pleasure and profit, the year has brought its share of petty drawbacks to hinder the best that might be done. In March, one of the best of the herd slipped on the ice, and springing to regain her feet, cut a piece off the end of one teat. This was followed in a few days by mammitis, and the consequent loss of the quarter for that season at least. In the latter part of July the three-year-old Jersey went "off her feed," and went down from thirty pounds per day to less than ten. In June she led the herd, her milk record and test indicating 57 pounds butter. Since that she has only been second-rate, and at present is not doing as well as last year. Later, another one was out of condition for a short time. We dry our cows up six weeks before they are due to calve, counting them as "due" in nine calendar months after service. For about a fortnight at this time we give no grain at all. One cow, No. 1, was giving 12 pounds milk per day, testing nearly 7 per cent., when we began drying her. Is it really best to force a cow dry under those circumstances?

Another cow, No. 3, when nearly dry, took inflammation of one quarter of her udder. According to past experience, that means the loss of the quarter for the next season. Can anything be done to prevent this? Could anything have been done to prevent the trouble occurring? In drying-off, is it best to milk partially each time, or to milk dry each time, gradually increasing time between milkings?

BUTTER CHURNED.

January, 71½ pounds; February, 134 pounds; March, 232½ pounds; April, 234½ pounds; May, 293½ pounds; June, 314 pounds; July, 294 pounds; August, 254½ pounds; September, 219½ pounds; October, 194 pounds; November, 157½ pounds; December, 98 pounds; total, 2,497½ pounds. Average per cow, 356.8 pounds.

MILK RECORD AND TEST.

	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6	No. 7
	5 yrs.	7 yrs.	9 y s.	3 yrs.	7 yrs.	4 yrs.	8 yrs.
January	211.6	218.9	20.5	16.5	491.9		408.5
February		640.8			858.1	544.8	361.8
March	414.3	533.6	1,042.	886.5	863.9	933.6	27.4
April		6.	3.8	4.	4.8	4.4	
May	831.2	413.3	977.7	808.8	783.6	801.3	
June	865.2	472.	1,039.	806.6	858.3	832.2	651.2
July	6.	6.	3.8	4.3	4.7	4.9	5.8
August	841.6	503.7	1,118.4	842.8	939.	828.3	919.8
September	5.4	5.4	3.7	4.2	4.6	4.7	5.3
October	799.7	496.	1,033.7	801.1	876.7	747.2	806.5
November	5.2	5.3	3.3	5.	4.	4.9	4.7
December	694.3	464.1	902.7	650.8	783.9	596.8	623.5
Total milk	6,545.8	5,079.7	8,013.2	6,655.6	7,878.5	6,480.5	5,776.3
Average test.....	5.8	6.3	3.8	4.6	4.4	4.9	5.5
Butter-fat	379.66	320.02	304.5	309.15	346.65	315.09	317.70

SERVICE AND CALVING TABLE.

Service, 1908.—No. 1, June 2nd; No. 2, April 6th; No. 3, May 13th; No. 4, May 16th; No. 5, March 28th; No. 6, April 30th; No. 7, July 27th.

Freshened, 1909.—No. 1, March 14th; No. 2, January 18th; No. 3, February 25th; No. 4, February 27th; No. 5, January 11th; No. 6, February 8th; No. 7, May 7th.

Service, 1909.—No. 1, April 29th; No. 2, April 28th; No. 3, April 21st; No. 4, August 17th; No. 5, April 5th; No. 6, April 22nd; No. 7, July 8th.

ACCOUNT WITH COWS, 1909.

Expenditures.

15 tons of hay, at \$6 per ton.....	\$ 90.00
2 tons bran, at \$29 per ton	58.00
1½ tons bran, at \$27 per ton	40.50
800 lbs. buckwheat bran, at \$1.65 cwt.	13.20
600 lbs. corn meal, at \$1.20 per cwt.....	11.40
400 lbs. middlings, at \$1.50 per cwt.....	6.00
500 lbs. oil cake, at \$1.95 per cwt.....	9.75
16 tons turnips	50.00
1 1-20 acres peas and oats	22.00
¼ acre Longfellow corn	9.00
Night pasture	15.00
Winter attendance, ¼ hour per day.....	15.00
Milking, 2 hours per day	73.00
Hunting in summer, 1 hour per day	10.00
Churning 89 times, 2 hours each	18.00
Interest, \$350, at 6 per cent.	21.50
Total amount	\$462.35

Receipts.	
2,497½ lbs. butter	574.52
45,000 lbs. skim and butter milk	90.00
Milk and cream used in family	22.00
Whole milk fed to calves	4.00
Manure, \$10 per cow	70.00
Total amount	\$760.52
Expenditures	462.35
Balance of profit	\$298.17
Average income per cow, \$108.65.	
Average profit, \$42.59.	

I would like to have the above questions answered. They scarcely belong to the subject in hand, but perhaps the answers will be of more profit than this contribution.

Albert Co., N. B. J. H. COLPITTS.

[Note.—Many of the most successful managers of dairy herds practice drying their cows six weeks to two months before due to calve, partially milking at gradually-lengthened periods, believing that the cow needs a rest, and will do better work after freshening under this system. As a rule, garget, if not checked in the early stage, leaves the quarter permanently unproductive. The treatment most likely to prove effective is repeated and long-continued bathing with hot water, rubbing dry with cloths, and applying belladonna liniment, together with a teaspoonful of pulverized saltpetre in the feed, or as a drench in water, twice daily, for three or four days. Many dairymen have great faith in the application of goose oil to the inflamed quarter after the hot-water bathing.—Ed.]

POULTRY.

Gleanings from the Poultry Institute at Guelph, Feb. 8th to 10th.

AMERICAN AND ENGLISH BREED TYPES.

At the opening of the session on Tuesday afternoon, Mr. Card gave a chalk talk on "American and English Breed Types," when he interested his audience exceedingly with his clever drawings of these breeds, showing the differences and similarities between them.



English types.

Mr. Card has a wonderful gift of fastening his teachings and fixing type on the minds of his hearers by drawing inanimate objects, such as the oval, circle, oblong, triangle and heart. He put great emphasis on the fact that the "Market basis should be the criterion," and that shape is based on a science that balances the bird in every part and backs up the bird; he also said that the position of the legs is very important, as they make or destroy the general appearance of the individual.



American types.

Owing to the absence of Mr. Fortier, A. G. Gilbert, Manager of the Experimental Farm, Ottawa, was the next speaker, and briefly outlined his twenty-seven years of experimental work at the Central Experimental Farm. In his remarks he also pointed out the necessity for the farmer to have a thorough knowledge of the poultry business, if he wants to secure the middlemen's profits, which rightfully belong to him. In order to do this, he must grow his own grain and turn it into eggs, so that then the bulk of the eggs will come direct from the farm.

In the evening, President Creelman gave an address of welcome, and spoke of the growing importance of the poultry industry in this country, and of the great chances for young men along this line; he also touched on the work that the College was doing, to give all the assistance possible.

POSSIBILITIES OF POULTRY BUSINESS.

Peter White was the next speaker, and dwelt on "The Possibilities of the Poultry Business in Ontario." In his opening remarks he deplored the fact that the Dominion and Provincial Departments of Agriculture were so far behind in realizing the great importance of this industry, consequently the farmer failed to grasp it too, with the result that Canada did not completely supply her own demand in poultry and eggs. Having no Canadian figures, he gave some from the United States, showing what they were doing.

Poultry products in United States last year amounted to \$625,000,000; one-half of this for poultry, and the other half for eggs. The income of the American hen if standardized at 5%, would place the value of the hens at \$4,500,000,000; equipment not taken into consideration.

The value of the hens, compared with the value of barley, is equal to twice the potato crop, nine times the tobacco crop, and twice the world's product, nearly half the value of the cattle, greater than the sheep and swine industries, and is over half the agricultural products, including those of the forest, in the United States.

This \$625,000,000 is more than is produced on all the farms in Canada, including live stock and all crops. According to Hon. Sydney Fisher, \$588,000,000 is the value of all agricultural products in Canada. The two difficulties are, the Government is not interested, and the farmer is not interested. In order to overcome this latter difficulty, the farmer must be educated to the needs of the produce market, as something must be done to meet the needs of the increasing population, and in five years we must have 250,000,000 hens to meet the demands of the market. To meet this growing demand we must get assistance and action along different lines from the Government, and use artificial means of incubation more extensively. In his closing remarks the speaker said that it would be well to follow in the footsteps of Denmark, where plain common honesty was their safeguard; a virtue it would be well to cultivate here.

INTENSIVE POULTRY-RAISING UNSUCCESSFUL.

On Wednesday morning Mr. Robinson spoke in a very interesting way on, "Why some have succeeded and others failed in the poultry business," dividing his subject into three heads—the poultry business of the past, present and future—showing how it had been carried on for thousands of years on a small scale for home consumption, until the time when steam was first used, which increased the growth of cities to such an extent that the



Orpington. Cornish.

price of eggs gradually rose from 90c. per bushel to 60c. per dozen at the present time. As the price of poultry products began to advance, men began to take charge of this industry, with the result that many failed, and some succeeded. Some of the fundamental mistakes are the methods of figuring the profits and the methods of keeping poultry. The average man leaves out the cost of labor, and bases his figures on small bunches of hens, and then assumes that the layers will do likewise. Then, again, the average man favors the intensive method of keeping poultry, which is sure to fail, as no great plants run on this system last over ten years, and most are out of existence now, although a few are being built by people who do not understand the situation.

In Japan a system of intensive poultry-keeping is practiced, because land is very valuable and labor cheap, and a greater income is reaped from the droppings than the eggs. If a system of intensive poultry-keeping is desired to be practiced, it should be done by rotating the crops, aerating the land by cultivation, and using colony houses instead of permanent ones.

In conclusion, the speaker said that it was absolutely necessary to buy the best land for poultry, and that many men did well when they took

on side lines, such as editorial writing, teaching and experimental work.

BUSINESS TACTICS IN POULTRY BUSINESS.

The next speaker was Mr. Card, who told his audience, in his concise way, that business tactics on the poultry farm should be yoked with a love of the business, pluck, perseverance and philosophy, if success was sought after. The business should be gone into with enough cash to start clear of debt, and with a year's living ahead, so that a good living should follow, by keeping within income. It was necessary to study the art of selling, by learning current prices, and turning into cash non-interest-paying goods. The customer should also be studied, and always served honestly, by giving good goods for good prices. Another important part in financing was advertising, which should be done by mouth and paper; and personal appearance also played important part. Specializing in whatever branch was most profitable was a wise plan, either on the general or poultry farm. This was better than having too many irons in the fire. The speaker here dealt with the great necessity of having "System" in every department, such as mixing feeds, feeding, cleaning coops and brooders, keeping accounts of daily expenses and records of incubation; and another aid to success was the cultivation of habits of observation and investigation, so as to be ready to detect the drones and the sick birds, and know the cause of trouble.

The value of a "bank account" was emphasized, as it gave tone to the business, and lessened labor by paying by check, and a receipt trained one to save and be careful of cash.

But above all, said the speaker, seek information and be a philosopher, and when things look dark, just turn to the sun, as shadows give things a blue aspect and spell failure. And do not forget pluck, perseverance, philosophy and business tactics, which means the practical application of the science of finance to business, and properly applied means success.

In the afternoon the business of the Canadian branch of the American Poultry Association was disposed of, with L. H. Baldwin in the chair, and Mr. Donovan acting as Secretary. The following new members were elected: John Clark, Cainsville; Robert McCurdy, London; W. Barber, Toronto; Miss Yates, Guelph, and Hugh A. Rose, Welland. The committee elected is as follows:—President, Col. C. M. Bryant; 1st Vice-President, L. H. Baldwin; 2nd Vice-President, C. K. Graham; members of the Executive, G. M. Curtis, H. Crawford and W. R. Graham; and Secretary, S. T. Campbell. The next meeting of the association is to be held at St. Louis, Mo.

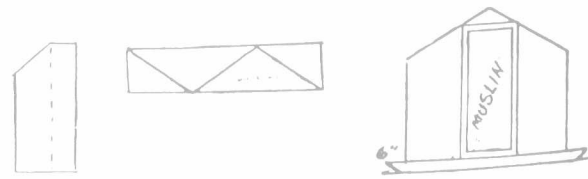
SUCCESS ON A SMALL FARM.

On Wednesday afternoon, Mr. Clark was the speaker, and as he is a practical farmer, having operated a two-hundred acre farm successfully for a number of years, he was listened to with the keenest interest. His subject was "A profitable twenty-five acre farm—poultry, fruit and honey." Mr. Clark has for the past four years been running a twenty-five acre farm, and is making more money, with less labor, than he did on the two-hundred-acre farm, so he endeavored to tell his audience how he does it. In the first place, he pointed out that his success lay in doubling his profits, by getting two crops off the same piece of ground, at the same time materially increasing his profits by the addition of bees, which require attention only during a few months of the year.

Fruit and poultry made an ideal combination, as a good sandy loam when cultivated was the best land on which to grow both, and another necessary factor in the production of good chickens was "shade," which was easily supplied by the fruit trees.

Mr. Clark is a breeder of Buff Orpingtons, and keeps from 150 to 200 laying hens, and raises annually about 500 chickens, which he culls as early as possible, to give the rest of the stock the benefit of the additional room. He makes large sales in eggs for hatching and breeding stock, which are a great source of revenue to him.

He uses the "Colony-house System," and at the present time has in use twelve inexpensive houses, made out of piano boxes, which he buys for \$2.00 each. It takes two piano boxes to make a colony house 6 x 7 ft., large enough to accommodate 10 or 12 mature birds. These houses are also used with universal hovers for brooding young stock, and are made by cutting boxes through at dotted line shown in sketch, using lumber from back and top for floor, and filling in other spaces; a 12-inch board is used, as shown in sketch, to make the two gables.



End view piano box.

For gable.

Piano-box Poultry-house Architecture.

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The house is covered with roofing paper, and placed on two 2 x 4-inch scantling, 8 ft. long for runners. The door is covered with thin white cotton, which admits all the light that is necessary. After building the 12 houses there was enough lumber left to make six brooders.

In the course of his remarks he said that he devoted five acres to apples, from which he got 350 barrels a year ago, and 500 barrels last year; one acre each to grapes, strawberries and raspberries, and half an acre to tomatoes, besides raising all the grain and alfalfa required for four horses and two cows, and leaving plenty of pasture for them; and it will be of interest to know that, in his experience, chickens do not touch small fruit when they are hopper-fed on free range.

Mr. Clark said in reference to bees, that more people should learn to handle them, as there is nothing more profitable, as his eighty-five colonies produced last summer four thousand pounds of clover honey and seven hundred pounds of mixed honey.

MORE ON BREED TYPES.

On Wednesday evening Mr. Card was again called upon to give another illustrated talk, this time taking for his subject "Breed Types." He said that birds should be bred so that every breed should be distinct in its own type. A Rock should be a Rock, and a Red a Red; there was entirely too much long-backed Rock, Rhode-Island Red, Orpington. He also stated that the hens that were making egg records were not usually show birds, although they are pure-bred. He strongly emphasized the foolishness of a great many disqualifications, that are often very trifling, and many, many times keep an extra fine bird from getting the prize, when a \$1.50 bird steps in and carries off the blue ribbon. If you can do anything to overcome disqualifications, do it, as it is hard to draw the line between faking and grooming.

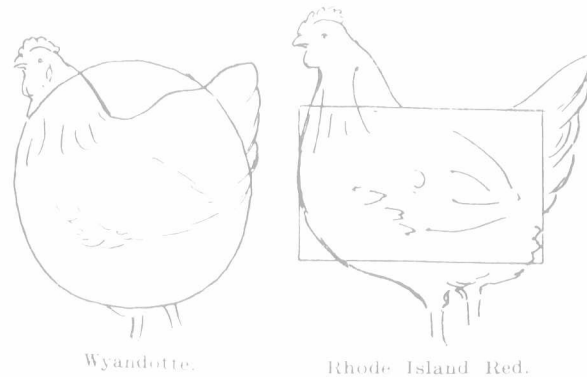
During his talk Mr. Card made some sketches of the Asiatic and French breeds, Games, White-faced Black Spanish, Black Hamburgs, and many others, showing clearly the distinctness in type between these various breeds.

COLONY METHODS.

F. C. Elford told of the methods of "Housing, Feeding and Breeding" followed at Macdonald College, which was not an experiment station, in the true sense of the word, although their two main objects were to build up laying strains, and keep up vitality by trap-nesting, and show the Quebec farmer that there is money in poultry, with small outlay in cost and labor.

In housing, the idea was to show that with such simple tools as the hammer and saw, one could house his birds at \$1.00 per hen; and such houses were in use at the College, made of single boards, on runners 6 x 8-inch cedar, with one window 3 1/2 x 5 ft. made to slide. These houses are 12 x 8 ft., and accommodate 25 birds, including three cockerels. The houses were drawn up in a row in winter, to lessen labor. The weather was too cold to allow of the use of the curtain front, so fresh air was admitted through hole opening into straw loft. When outside temperature was 24 below zero, it was 20 inside, and they seldom had frozen combs, as the houses were dry and birds healthy.

The speaker here said that the question of feeding with them was rather a serious one. Owing to the high price of grain, they had been feeding part wheat, corn and buckwheat, but as wheat was \$1.75 to \$2.00 per bushel, they were going to feed more corn; dry mash was also fed in the hopper, composed of bran, and any other suitable available ground grain; beef scrap was before them all the time, and table scraps made a valuable addition. Another interesting feature was the description of the combination nests, which are 6



ft. long and 1 ft. 5 in. high and wide, and although they do not keep accurate individual records, they keep you posted on the hens that are laying. From three hundred and fifty pullets, and the same number of old hens, they are getting from 254 to 273 eggs per day; and the usual gap in egg production in the months of November and December was filled by 150 February-hatched pullets, which laid about 70 eggs each, and are now moulting.

MAKING A NEW BREED OF POULTRY.

Mr. Card came before his audience again, and told them how he made a new breed of poultry. In his opening remarks he said that every true agriculturist should be a fancier. It had always been his ambition to make a new breed, and now he had done it, and called it the White Laced Red Cornish. In the producing of this breed he had used as a basis the Brahma, Wyandotte, Red Cornish Indian, White Cornish Indian, and a Japanese breed, and his finished product was an egg-and-meat producer, with a small comb. He pointed out some of the fundamental principles underlying the making of a new breed of poultry, one of which was the keeping of accurate records of experimental matings made in the autumn, from birds with the greatest stamina and vigor, always avoiding the weak ones. Another point of great importance was the necessity of observing the habits of the individuals, so that none but the active, vigorous ones would be used. The first hen out in the morning and the last to roost was the one he liked. Mr. Card brought this unusually instructive and interesting talk to a close, by telling how he had practiced a system of line breeding similar to Mr. Fletcher's system.

POULTRY HOUSES OF THE FUTURE.

Mr. Robinson dwelt at considerable length upon "The Poultry Business of the Future," which he said depended largely on the development of a permanent poultry culture which we would have to study, to see if it would be permanent or not. The object in keeping poultry was to be furnished with eggs, meat and feathers. The reason of the lack of progress in the poultry business was due to its having been worked along too intricate methods; but now people were beginning to realize this, and see the folly of it, and were getting back to simple methods practiced long ago. In combining these simple methods with the good results of modern scientific experiments, an ideal condition should be reached, and in all likelihood would make the basis for future methods. Things always go wrong when we wander too far from nature; for example, when fowls are confined in small yards and pens, we treat them like caged birds, forgetting that they are land birds, but when they are given natural surroundings, as orchards and grassy fields, they are satisfied, and in turn give satisfaction to the owner.

If more people in towns and villages would start keeping enough hens to supply their needs, it would be a great benefit to the country, as a flock of 24 hens could be kept up indefinitely on a town lot, by renewing it with fresh stock from the country. This would be an advantage to the farmer, by increasing his sales of stock, and encouraging him to eat more eggs and poultry. He stated that we would see greater production on the farms in the next ten years, because we are coming to the condition when we must combine the raising of products, and poultry fitted in well with other branches of farming. In this way we will get away from encouraging exclusive poultry plants, which are illustrations of carrying specializing too far. Every farmer should consider the possibilities of his land, and use it as a basis to get most out of it. As a final word, he said that farmers should keep nothing but pure-bred stock, and trade male birds, and the producer to get full value for his products should co-operate.

Mr. Elford was the last speaker of the session, and took up the subject of "Co-operation," directing his remarks particularly to the Eastern Canada Poultry-producers' Association, which is based on a system of grading the produce into three classes, as follows: Selects, first and second. Eggs are graded thus: Selects—To consist of strictly new-laid eggs, weighing not less than twenty-four ounces to the dozen; clean, of uniform size and color, packed in substantial and neat cases, having clean fillers. No. 1—To consist of new-laid eggs, not less than twenty-two ounces to the dozen; clean, fairly uniform in size and color, packed in substantial neat cases, with clean fillers. No. 2—To consist of new-laid eggs, packed in substantial cases. During the months of November, December and January, the weight clause to be reduced by two ounces. Grades of dressed poultry: Selects—To consist of specially-fattened chickens, extra well fleshed, and of superior finish and appearance, unbroken skin, without blemish, straight breastbone, and neatly packed in packages that hold one dozen birds. Each package to include only birds of a uniform size and color of flesh and legs. No. 1—To consist of well-fleshed chickens of neat appearance, straight breastbone, no disfigurement; packed in neat, strong boxes. No. 2—To consist of fairly-fleshed chickens; packed in neat, strong boxes. The term "chicken" in these three grades means all birds under seven months of age.

Professor Wallace, of the Chair of Agriculture and Rural Economy in the University of Edinburgh, after visiting British Columbia last year, has purchased 65 acres of uncultured bush land in the Chilliwack district, at \$10 an acre.

GARDEN & ORCHARD.

Why is Co-operation Not More Successful Among Farmers?

Address delivered by James E. Johnson, Manager of Norfolk Fruit-growers' Association, before the Short-course Class in Fruit-growing, at O. A. C., Guelph, 1910.

The key to the great future of success with our farmers lies in true, systematic co-operation. It is just as much necessary for farmers to join together for their mutual benefit as it is for any other body of people in the world, and nearly everybody else is working in co-operation with others of like occupation. It is necessary to organize, to have written by-laws, and to elect the most interested growers as officers of the organization. The best business manager obtainable should be engaged; the manager may not necessarily be one of the members.

It is regrettable that farmers' organizations, up to the present time, have not been more successful, and we must profit by the mistakes that have been made. There are several reasons why farmers' organizations have not been more successful, the chief of which I will explain to you:

1. Because, as a class, farmers, up to the present time, have not learned the necessity of running their farms strictly upon business principles, as is customary for a business man to run his business. The farmer's duty, as he sees it, is to till the soil, grow and harvest the hay, grain and other products, and take care of the stock, sell all above what he requires for his own use for cash, and with the cash purchase necessaries, and try to put aside a little cash each year in the bank. Usually he does not keep any other book than the bank passbook furnished to him by the bank. Business men, as a class, do not run their business in this way. They have learned that it is necessary to keep books, and in these books to have accounts of every branch of their business, so that they are able to determine their profits in each department. Some farmers keep accurate books for their farms. Such ones find it a pleasure to do their farming in this businesslike way; and are good organizers of farmers' co-operative associations; and if members were all of this type, as far as the membership is concerned, it would, without a doubt, be quite satisfactory.

2. We should, as farmers, try to educate ourselves as to business methods, and we will then learn that farm books are necessary to insure success.

3. Jealousy on the part of individual members, generally caused by suspicion.

4. Farmers are more self-supporting than any other occupation, and this has given them considerable independence, but they have been accustomed to managing their own affairs, and not paying large profits, salaries or commissions to anyone, if they know it; and what are considered large profits by the farmer are looked upon as small profits by the business man. Therefore, when farmers get into business co-operatively, very often they look for a manager who will do their work for the least money, rather than one of experience. I know of several instances where men have accepted positions as managers of associations at a lower rate of commission or salary than they knew they could afford to take, but, in order to get fruit-growers' associations started, they accepted the positions, to the detriment of both the associations and themselves. The manager soon finds that the fruit business is not one of pleasure, and when he demands more pay, there is always someone in the association who is willing to do it at the same old price, which causes a change in the management. A manager's position is a hard one—far harder than that of a general in an army, as the general only has his own army to look after, but the manager of a fruit-growers' association has his own army to look after, and also the enemy, as some farmers rather erroneously term the apple-buyer. A successful manager will get the growers and the apple-buyers upon a better understanding with each other, and make it a pleasure for them to do business with each other, to their mutual benefit. Apple-buyers and growers are both working at the present time to their disadvantage by not working co-operatively with one another.

5. The lack of education along co-operative lines, and the necessary experience in the purchasing of supplies and the growing and packing of the very best quality of apples.

6. The packing of apples is often very unsatisfactory. We should try, as far as possible, to have each member's apples packed in his presence, so that each can see for himself the quantity of No. 1, No. 2 and cull apples that come out of his orchard.

7. Farmers have been in the habit of receiving cash for their apples when delivered at the railway station, and they like to receive their cash soon after making the delivery; so my advice would be to sell in the fall of the year, at pack-

ing time, and make contracts so that you can settle with your growers as quickly as possible.

8. All apples should be pro-rated, according to varieties and classes, so that every grower will get a full value for his orchard. For instance, Northern Spies and Kings are worth more than Ben Davis or Pewaukees. It would well pay some of our co-operative associations to have their manager take a trip to Hood River, Oregon, or Grand Junction, Colorado, and visit the co-operative associations there, and learn their business system of co-operatively handling their apples. Also visit the large receiving markets, and learn what pack is most desirable. The reason co-operation is more successful in the Western States than it is here in the East, is because the co-operative associations there are made up of members who are business and professional men.

9. We do not give enough attention and consideration to our home markets.

10. Each and every member and officer of the Association should not only keep the printed by-laws of the association to the letter, but should also enter into the true spirit of co-operation by keeping the following unwritten laws:

(a) The object of this association shall be bringing together several minds united in one idea.

(b) Speak kindly, be true, and do right.

(c) All should agree to do all that we can towards growing the very best apples, and use as much care in the growing, packing and grading of our apples as do the California Co-operative Orange-growers' Association in regard to their oranges.

(d) We are in business for our mutual benefit. We, however, expect losses, as well as gains, but will stand together.

(e) Do unto others as you would like them to do unto you.

(f) We must not be selfish, or have suspicion of one another; but everything that is done should be done for the good of the whole association, and not for the good of any individual member.

Insects Attacking the Apple.—II.

OYSTER-SHELL SCALE OR APPLE BARK-LOUSE.

Specially prepared for "The Farmer's Advocate," by L. Cæsar, O.A.C., Guelph.

The oyster-shell scale is found in almost every part of Canada where apples are grown, and, though not a prolific insect, is causing no small loss to fruit-growers. This is chiefly because the scale has been allowed for years to go on increasing, without any attempt to control it. Figure 1 shows the appearance of the scale. It usually closely resembles in color the bark of the tree it is on.

Brief Life-history.—The insect passes the winter in the egg stage, underneath the scale covering on the bark of trees. The eggs are very small and white, and vary in number from 20 to 100. They can easily be seen if the scale is removed from the bark, and they fall upon any black surface. Early in June, the date depending on the warmth of the spring, the eggs hatch out, and numerous little creamy-white crawling lice can then be seen moving here and there over the bark. Hatching usually extends over a period of four or five days. After running around a few hours, they select a suitable place, and insert their sucking tubes through the bark and begin to feed. Almost at once a waxy secretion begins to cover their bodies, and gradually they assume the shape and color of the full-grown scales. Females never move after settling down in this way, but in late summer the males are full-grown, and come out from underneath the scales. Soon after this, egg-laying begins, and continues for some time in the fall. The female, as she lays her eggs, gradually shrivels up towards the small end of the scale-covering, and dies when all the eggs are laid. There is only one brood in a year.

Means of Control.—1. As weakened and unthrifty trees are usually worst attacked, good cultivation, careful pruning, and fertilizing of the orchard up to about July 1st, or as late as is safe in each locality, will help greatly.

2. Spraying. Numerous experiments by the writer and others show clearly that lime-sulphur, preferably home-boiled, of the strength of 20 lbs. lime, 15 lbs. sulphur, and 40 gallons of water (see Bulletin 177), is an excellent remedy for the pest. Apply the wash with thoroughness, preferably just before the buds open in spring. It may, however, be used a few weeks earlier, if desired. The spray will not destroy all the insects in any one season, but if continued two or three years in succession, will almost completely free the orchard from the pest, and will also help the trees in other ways, to be mentioned in later articles.

3. Kerosene emulsion of the ordinary strength (see Bulletin 154, page 18), applied just when the eggs are seen to have all hatched, will destroy the young insects, and give good satisfaction, but is not so cheap and beneficial, on the whole, as the lime-sulphur.

SAN JOSE SCALE.

Fortunately, the San Jose scale is limited to a

very small district in Canada, chiefly that part of Ontario south of a line from Hamilton to Windsor. All orchards in these districts require to be carefully sprayed with lime-sulphur each year. Those who do this thoroughly, need not fear the pest; those who do not, will lose their entire orchards if they become infested.

Figure 2 gives some idea of the appearance of the insect, but those who fear they have it on their trees should send specimens to the Entomological Department, Agricultural College, Guelph, and find out for certain. It is difficult, in a short space, to describe the scale so clearly that anyone can recognize it from the description. Two points, however, will help. The scales are circular, nearly flat, very small, the largest not more in diameter than the head of a pin, and most of them less than quarter this size. In the winter, nearly all the scales are black, and with a small magnifying glass each will be seen to have a dis-

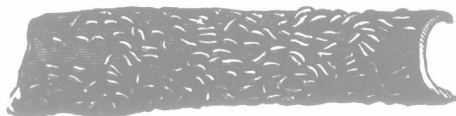


Fig. 1.—Oyster-shell Scale, or Apple Bark-louse.

tinct nipple and a little groove or depressed ring around it. In the summer, wherever the fruit is attacked, red spots appear around each scale.

Life-history.—The winter is passed as immature insects, under the little black scales referred to above. No eggs are laid at any time. In the spring, usually early in May, the two-winged, very tiny males appear, and soon after June 1st the females begin to give birth to living young. About ten are produced a day for forty days. These newborn insects are orange in color, and move around for a few days, and then insert their sucking tubes through the bark, and remain fixed in this place. In a very short time they begin to secrete a waxy covering, and gradually increase in size. In about thirty-five days the young females are full-grown, and ready to give birth to a new generation. There are probably three full generations in Ontario, as reproduction continues until the apples and pears are full-grown in autumn. The rate of increase is wonderful. From a single female, at least 4,000,000 scales can originate in one season, as anyone can see by taking the above figures and estimating for himself. This shows that we must be very careful in our spraying to do thorough work.

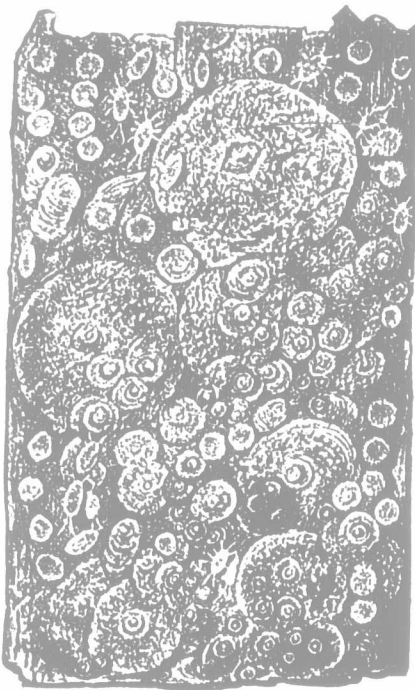


Fig. 2.—San Jose Scale, showing full-sized scales, immature scales, and the tiny insects themselves as they appear when moving around before inserting their sucking tubes and being covered by the waxy scale covering.

Means of Control.—1. Prune carefully and somewhat severely all badly-infested trees before spraying. If large apple trees are to be treated, cut the top branches off, so that a man on a tower can spray every part thoroughly. In cutting back, make a sloping cut just above a side branch, and soon afterwards paint all the large cuts with white lead free from turpentine. This is to keep disease out, and prevent decay. Burn all prunings.

2. Spray thoroughly with lime-sulphur, preferably the home-boiled (20, 15, 40 formula), or with strong commercial lime-sulphur, to which about 20 pounds of freshly-slaked lime should be added. Very badly-infested trees should receive two applications, a day or two apart. To see that every twig and branch is covered, take an extra tankful of the wash, and go around soon after the orchard has been sprayed, and touch up any missed spots. The best time to spray is

just as the buds are ready to burst, but good results are also obtained from earlier dates. Peaches should be sprayed at least a week before the buds are ready to open.

Note.—Many other spray mixtures are used, but none give the same degree of satisfaction year after year.

APHIDES OR GREEN PLANT LICE.

Aphides have been unusually abundant this last year on apple trees, and have not only caused much injury to the foliage by sucking the juice out of the curled leaves under which they fed, but also to a very large extent appear to have been the direct cause of the numerous clusters of dwarfed apples, so very conspicuous, especially on the lower branches.

Life-history.—These insects pass the winter in the egg stage, the eggs being small, black, glossy, and placed here and there over the twigs and small branches. About one week before the buds burst the eggs hatch, and the little green aphides move to the swelling buds, and begin to feed on the green tissues. When the leaves get larger, the feeding cause them to curl, and thus conceal the insects on the under surface. All through the spring and summer, every aphid is a female, and produces living young. There are many generations of these, and marvellous numbers may come from a single individual. The first generation of aphides have no wings, but the succeeding generations are mostly winged, and when the hot weather of July comes, we suddenly find that they have almost deserted the apple trees. Where have they gone? To the grass and grain, to feed near the roots. In the fall of the year they return in considerable numbers to the apple trees, and eggs are laid before the severe frosts. The cold finally kills all the insects, leaving only the eggs.

Means of Control.—1. Fortunately, there are numerous predaceous and parasitic insect foes, such as ladybird beetles, that attack aphides, and, with the help of diseases, keep them under control most seasons, so that we seldom have so severe an outbreak as this last season.

2. Spray with lime-sulphur (20, 15, 40) at least ten days before the buds burst, to destroy the eggs.

3. If, on examination of swollen buds a day or two before bursting, the little green aphides are seen to be present in considerable numbers, in spite of the application of lime-sulphur, spray at once with kerosene emulsion to destroy these. The kerosene may be a little stronger than usual.

This method of treating them in the spring is the only really satisfactory one, because once the leaves are curled by them it is impossible to control the insects, whereas the early-spring treatment destroys so many that they are not able to do any serious damage later.

Demands of Orcharding on Soil Fertility.

Editor "The Farmer's Advocate":

As to the matter of fertilizing constituents taken from the soil by apple crops, I may quote Roberts, Cornell Experimental Station. From analysis, the values of nitrogen, phosphoric acid, and potash, taken from an acre of apple orchard (the trees thirty feet apart) in twenty years, counting in the crops of fruit:

Total in fruit for twenty years	Value.
Total in leaves for twenty years	\$147.00
Total in wood for twenty years	160.51
	70.00

Total \$377.51

Another calculation by the same investigator shows the amount of plant food which may be expected to be carried away in the fruit and blown off in the leaves (not computing the amount in the wood), for the period between the ages of 13 and 33 years, of apple trees:

	Apples.	Leaves	Value.
	Lbs.	Lbs.	
Nitrogen	498.60	456.75	\$143.80
Phosphoric acid	38.25	126.	11.50
Potash	728.55	441.	52.65
			\$207.45

While the above results are reached by assuming a given amount of apples and leaves per year in a bearing orchard, and while the facts in any case, at any given time, may vary widely, yet it is believed that they are valuable, as they furnish a means of measuring in any given case with a great degree of accuracy, the amount of soil exhaustion.

The following table shows the amount and value of the fertilizing ingredients removed by wheat (grain and straw) in twenty years' continuous cropping, assuming an average yield of fifteen bushels per acre:

	Grain and Straw,		Value.
	20 years,		
	Lbs.	Lbs.	
Nitrogen	424.80 +	234.78 =	\$ 98.92
Phosphoric acid	160.20 +	50.40 =	14.73
Potash	109.80 +	214.20 =	14.58
			\$128.23

Total value in wheat, grain and straw for 20 years, \$128.23.
Total value in apple, fruit and leaves for 20 years, \$207.45.

The table shows that the orchard requires, if fruitful, plant food equal in value to \$89 more than the wheat. No one would think for a moment of trying to raise wheat, even on our best land, for twenty consecutive years, even though the soil was fitted in the best possible condition yearly.

Many old orchards have not only been making these large demands on the soil for the last twenty years, but in many instances the land has been used for the production of hay or grain or pasture.

These investigations, when considered in all their bearings, lead one to wonder not why old orchards are failing, but why they have not ceased to produce merchantable fruit long since.

It is argued by many that fruit-growing is quite similar to growing trees; that the question of soil exhaustion is not a matter of very great importance, provided the soil is well cultivated; and that all soils contain sufficient quantities of plant food to insure the relatively small available supply required from year to year.

It is admitted that on soils of good mechanical condition, and rich in nitrogen, phosphoric acid and potash, the exhaustion arising from the continuous removal of crops will not become apparent for some time, but it should be emphasized that it is only upon soils rich in these essentials that the growth of fruit, even poor fruit, can be continued for any considerable period without the application of manures.

Farm crops, as a rule, require but one year for the entire process of vegetation to maturity. For apple crops, the purely vegetative processes continue for six to seven years, and with many kinds much longer; while, after the fruit-bearing period begins, the vegetative processes do not cease, but are coincident with the growth and ripening of the fruit.

The fruit differs very materially in its character from that of grain crops, which mature their fruit and die in one short season of three months, because a whole season is required for its growth and development; that is, it is necessary that there shall be a constant transfer of the nutritive juices from the tree to the fruit throughout the entire growing season, while the growth of each succeeding year of both tree and fruit is dependent upon the nutrition stored up in the buds and branches, as well as upon that which may be derived directly from the soil.

Again, the relation of fruit-growing to soil exhaustion is very different from that of general crop-farming. In orchards there is an annual demand for specific kinds and proportions of soil constituents. It is really a continuous cropping of the same kind; there is no opportunity to correct the tendency to exhaustion by a frequent change of crops. It is safe to say that the very heavy crops of fruit that our trees sometimes bear make a much heavier drain upon the available plant food in the soil than the largest crops of wheat; so we must fertilize intelligently to insure the future health and vigor of our bearing orchards.

HAROLD JONES,
Grenville Co., Ont.

THE FARM BULLETIN.

The Factory on the Farm.

As time goes on, it becomes very evident to those of us living in the more thickly-populated districts of Ontario that the time has arrived when we must farm more intensively, or go out of the business.

Land values have risen 25 to 50 per cent, in the last eight years in some districts; farms are being subdivided, and in many cases where one family lived ten years ago, three or four are living to-day on the same farm, each with his own establishment, and in the majority of cases seemingly doing well. Anyone who is at all familiar with farm conditions in Ontario during the last decade knows that this change has come about chiefly because of a state of intensive farming. As the population of the towns and cities increase, the demand for farm produce of all kinds becomes more general. The prices for the best quality of everything grown on the farm were never better, but for the poorer quality the prices are unremunerative, and the demand poor and limited. It behooves us, therefore, to supply as much as possible of the better quality, for in so doing we are catering to the best customers, who are at all times ready to pay a good price for a good article.

In all manufacturing business there are two chief essentials, viz., converting the raw material as cheaply as possible into the finished product, and selling the latter for the highest price obtainable. Between these two points are usually to be found the elements of failure or success.

The farmer is a manufacturer, but how few of us realize that! Our land, implements, horse-power, etc., might be called our equipment or

plant; our stock, in most cases, seeds of all kinds, etc., might be called our raw material. With the combination of those two, we produce the finished product. Just what that is to be, each one must determine for himself, being governed by conditions, situation and circumstances.

Without a good equipment—meaning well-fed land, rich in humus and underdrained (if possible), well-bred horses, cattle, sheep, swine and poultry—we cannot produce the high-class finished product. At the present time we are feeding a stable of cattle bought on the Toronto market at so much per pound. Those cattle were the Eastern farmers' finished product, and it speaks well for him the breeding and quality of them. When we bought them, they at once became our raw material; we feed them grain, oil cake, roots, silage and clover hay, all of which, with the exception of the oil cake, we produced on the farm. The result is our finished product, with an increased price, because of our converting those products of the farm into beef, which, in its turn, of course, becomes the abattoir's raw material, and so on it goes. But, like other manufacturers, we must not look altogether for the sole profit in the finished article; we must also take care of the by-products, such as manure, etc., and utilize them to the best advantage.

In dairying, butter, cheese, and sometimes cream and milk, are the finished product, the skim milk and whey the by-products, to be in turn used as raw material to produce the finished product in the shape of pork and calves. In everything we produce we find the same conditions governing. In growing grain for market or for seed, the ordinary farmer, with haphazard methods, gets the low price; the up-to-date farmer, with his clean, well-cultivated farm, pure seed and improved methods, gets the high price, with always the keen demand.



Howard S. Kennedy, Alma, N.S.
President Nova Scotia Farmers' Association.

"The Farmer's Advocate," in the Christmas Number, with commendable enterprise, taught us a splendid object-lesson in the care of an apple orchard, showing us how remunerative it was to produce the high-class fruit. In all other kinds of fruits and vegetables it is the same thing—converting the raw material into the finished product, and getting high prices for high-class, attractive goods in attractive packages. In the poultry department we find the same thing; one man fattens his chickens at home and gets the high price; the other sells them to be crate-fattened by his neighbor, perhaps, and takes an unremunerative price. On the one hand we find him selling his cockerels at eight to ten weeks old for broilers, on the other hand keeping them till Christmas, and taking less than he could have realized in the months of May and June. Because of improved methods, we realize 40 to 50 cents per dozen for eggs, instead of 15 to 20 cents by the other method.

On the one side we have always a strong demand, quick sale at remunerative prices; on the other, poor demand, slow sale, and low prices.

To-day, if we but look around us, we find the men who are making farming pay, the men who are making farm life attractive, not only to the young men, but also to the man in the city, are the men who have realized the meaning of "The Factory on the Farm," or, in other words, who are converting the raw material produced on the farm into the finished product before it leaves the farm, and using the by-products to complete the cycle.

Wentworth Co., Ont.

Opportunities at Our Door.

Editor "The Farmer's Advocate":

I just wish to call attention to the drain of young men leaving Ontario for the West. I have been a number of years in Alberta myself, and have now lived several years in Ontario. The matter to which I wish particularly to call your paper's attention is that young men are going to the West too much on the principle that distant fields are green, and at the same time leaving far better opportunities behind in Ontario. Take, for instance, this County of Haliburton; it is at present a thinly-settled district, but well timbered, well watered, and one of the best grass districts I have ever lived in. There is still a quantity of Government land open for settlement under the "Free Grants Act." On these lands a healthy young man can settle, and obtain an income from the time he locates his land. Hard wood is worth here \$2.75 per cord, pulpwood \$5.50 per cord; all timber fit for sawmill purposes is sold from \$8.00 to \$14.00 per thousand, according to quality. Hemlock bark is worth \$5.00 per cord. We can raise here all the coarse grains, and abundant crops of hay. Corn in some sections reaches maturity, but gets far enough advanced everywhere to make good fodder.

Where is there a part of the Prairie Provinces a man can step into with such small capital? Practically all a man needs to start for himself here are, as the shantyman says, his "bread-hooks."

The winters are a great deal milder, and the climate, all together, far preferable to the Western; markets for all produce are near at hand, in the lumber camps, etc.; prices for produce are higher than in the front townships. The C. N. R. and others are beginning to build railroads cutting through the county in various directions, so that in the near future the shortest through line from Ottawa to Toronto will be through this district. My advice to our young farmers is, see what old Ontario has before trying the Western Provinces.
Haliburton Co., Ont. A. G. TATE.

The Farm Water-closet.

Editor "The Farmer's Advocate":

Will you kindly allow me space in your excellent paper to say a few things of a practical nature with reference to farmers' water-closets? The subject is not a very pleasant one to write about, but it is certainly far more pleasant than the use of some of these buildings. Recently I have been in the country, and I confess I was more than once greatly annoyed at the indifference and carelessness manifested in regard to the water-closets. In the first place, the location of these is, to say the least, most unsatisfactory. Sometimes one has to go four or five rods through snow or mud to get to them—generally, the far end of the garden. Then, as to the buildings themselves—how can one describe them! They are thoroughly unfit in every way. Sometimes four posts are stuck in the ground, enclosed with a few rough boards, so far apart as to make privacy quite out of the question. The door is often so low that one is sure to hit his head against the lintel, and when you do get in, you cannot stand up straight. In one of these there was no door at all, and so a window was unnecessary. The chickens had found this a very convenient place to roost, as could be easily seen. As to sanitary conditions, they were perfectly abominable and abhorrent. Some people do not even have the first semblance of such a place, and one is expected to betake himself to the barnyard or fence-corner.

In the name of common sense and common decency, why should such conditions obtain? In many families there are delicate, sickly people. Why should these be compelled to expose themselves thus, especially in cold and inclement weather? A water-closet ought to be comfortable and clean, and located, say, at the end of a woodshed, which generally opens into the kitchen; then one would not require to go outdoors at all. Keeping the closet clean is a very simple matter, if done regularly. It costs little to have the inside papered with nice pictures. Keep a box with some sand or ashes for use, and occasionally throw in a little lime; and it ought not to be necessary to say—but, alas, it is necessary—have a good supply of paper. Now, all this could be had at very little expense, and how grateful many a mother and daughter, especially, would be to have such a convenience.
HUMANE.

A most successful series of short-course judging classes has just been concluded in Simcoe County, Ont. These were held in Duntroon on February 9th and 10th, and in Cookstown on February 11th and 12th. The attendance was large in both places, and a great interest was aroused. The two days at each place were not nearly long enough for the work which was to be covered, and it seems that something must be done to extend the time for this work another year.

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Canadian Products Admitted into Germany at Conventional Rates.

The list of Canadian products to be admitted into Germany on and after March 1st next at the conventional tariff rates, includes:

Wheat and spelt, barley, oats, red clover seed, white clover seed, and other clover seed, grass seeds of all kinds.

Fruits, fresh.—Apples, pears, quinces unpacked, packed apricots, peaches, plums of all kinds, cherries, mazzards, medlars, strawberries, raspberries, currants, gooseberries, blackberries, myrtles, elderberries, juniper berries, and other edible berries. Dried and kiln dried (cut up and peeled or not): Apples and pears (including waste, capable of use), apricots and peaches, plums of all kinds, loose or in casks or sacks, weighing at least 80 kilos, gross weight, packed in other ways. Other dried or kiln-dried fruits.

Timber.—Sawn longitudinally or prepared in some other way, not planed, hard and soft wood for casks (staves and headings), also pieces of wood roughly shaped, recognizable as these articles, not painted or planed, of oak or other hard woods or soft wood.

Horses, horned cattle (live weight), sheep (live weight), meat (excluding bacon), fresh, frozen, simply prepared, prepared more delicately for the table.

Marine crustaceans.

Greases and grease-like fats (hog's lard, goose grease, beef marrow, oleomargarine, and other analogous fats); meat, baked or roasted or not; meat of grain, excepting oats; meat of malt (with the exception of baked or roasted malt meal); meat of rice or pulse.

Condensed milk.

Alimentary and consumable articles of all kinds (except beverages), in air-tight receptacles, so far as they are not subject to higher rate of duty as such.

Calcium carbide.

Wood spirit.

Leather, half or entirely dressed, whether prepared or not, unenumerated elsewhere, of a net weight of more than three kilos each piece; entire hides or half hides, with the heads, necks, bellies and hoofs inseparable; head, neck and belly pieces, and hoofs, as well as horse hide and pig leather, without regard to the weight of the piece. Backs (belt leather), footwear of leather of all kinds, including that made from hides with the hair still on, and those made from fish or reptile skins, with soles of other materials than wood, weighing more than 1,200 grammes per pair; weighing more than 600 grammes and up to 1,200 grammes per pair. Also boot uppers of leather of all kinds, with elastics, without regard to weight, or weighing 600 grammes or less per pair.

Semi-pulp (semi paste for the manufacture of paper or cardboard).

Millboard (pasteboard).

DIFFERENCE IN TWO TARIFFS.

The difference between the German general tariff now in force against Canadian products and the conventional tariff which will be in force under the new agreement is very substantial. The duty on wheat will be reduced from 7½ to 5½ marks; on oats from 7 to 5 marks; on timber a reduction of nearly 50 per cent.; on cattle, from 18 to 8 marks; on horses, from 180 to 72 marks; on fresh or chilled meat, from 45 to 27 marks; on semi-pulp, from 3 to 1½ marks; on chemical or mechanical wood-pulp cardboard, from 4 to 1½ marks.

The removal of the surtax will result in a big increase in Canada's trade with Germany. In 1896 Germany sold Canada goods to the value of \$5,931,459, and bought from Canada goods worth \$757,531. The trade continued to grow, until in the year 1903 it reached high-water mark, \$14,380,336, of which the imports from Germany accounted for \$12,282,637, while exports from Canada to Germany were \$2,097,499. But immediately the surtax became operative there was a large falling off in trade between the two countries. Imports decreased to \$9,175,603 in 1904, and exports to \$1,819,223. The tendency has been steadily downward until last year, when imports into Canada from Germany amounted to \$6,050,365, and exports were \$1,476,552. Thus the total trade is now just about one-half what it was before the surtax went into force.

The chief items of our imports from Germany were clocks, combs, cotton clothing, lace, socks and stockings, velvets, velveteens and plush fabrics, cotton yarns, aniline dyes, proprietary medicines, saltpetre, china and porcelain ware, electrical apparatus, fancy boxes and desks, braids and cords, lace collars, etc.; toys and dolls, flax, hemp, jute and manufactures thereof, fur skins (dressed and undressed), gloves and mitts, glue, gunpowder and explosives, gutta serena and India rubber and manufactures thereof, jewellery, leather and manufactures thereof, cutlery, tools and implements, tubing, wire, zinc, mineral waters, musical instruments, optical instruments, paintings in oil and water colors, wood and manufactures thereof, ready-made clothing, women's and children's garments, wool fabrics, knitted goods and yarns.

Progress of National Records.

The substantial progress of the Canadian system of National Records, with headquarters at Ottawa, is shown by the large increase in receipts from all sources, and from the fact that in 1909 there were increases in registration of all classes of stock except swine. There has been great activity in the importation of pure-bred Clydesdales and in the Percheron circles in the Northwest, where a French Coach Society has been formed, but not yet incorporated. The incorporation of the Canadian Standard-bred Society at no distant date is anticipated, and negotiations are under way to bring about conformity between the English, Canadian and American Hackney rules of entry. The supply of good farm-bred horses of the draft type, particularly, continues to fall short of the demand, and high prices rule. The following tables show the pure-bred importations of 1909:

IMPORTATIONS, 1909.	
Clydesdale horses	1,135
Thoroughbreds	296
Percherons	283
Shires	114
Hackneys	73
Belgians	43
Ponies	21
Sheep	164
Swine	20
Ayrshire cattle	75
Herefords	52
Jerseys	29
Red Polled	23
Shorthorns	18
Angus	15
Guernseys	15
Total	2,376

IMPORTATIONS, 1909—FOREIGN REGISTRATION.	
Standard-bred horses	142
Morgans	8
Suffolks	47
American Saddle	3
Oldenburg Coach	3
French Coach	9
Yorkshire Coach	1
German Coach	2
Kerry and Dexter cattle	1
Total	216

Channon & Son's Shorthorn Sale.

The auction sale of the "Sunny Acres" Shorthorn herd, the property of Wm. Channon & Son, Oakwood, Ont., held on February 16th, owing to stormy weather and snow-blocked roads, was the occasion of bargains for buyers. The cattle were a good class, well bred, sold in good breeding condition, and should have brought better prices under more favorable weather conditions. One half the number sold brought an average of \$135, and the whole number, old and young, averaged \$102.50. Following is the list of those sold for \$100 and over:

Lady Aberdeen 3rd, calved 1907; James I. Davidson, Balsam	\$200
Gloster Beauty, Oct., 1907; Jos. Johnston, Ashburn	180
Lady Aberdeen 2nd, Dec., 1903; J. I. Davidson	170
Royal Beauty, Aug., 1908; Samuel Sanderson	155
Ida Ramsden, Dec., 1906; J. E. Graham, Lindsay	123
Clara Barr, Dec., 1902; John Frain, Oakwood	138
Rosa Lind, March, 1904; W. S. Braund, Lindsay	120
Gloster Princess, April, 1905; Thos. Wilson, Lindsay	120
Jennie Ramsden, May, 1903; Wm. Ashmore, Dunsford	105
Crimson Lily, May, 1902; W. J. Moore, Lindsay	110
Golden Beauty, Jan., 1907; John Frain	100
Mabel Ramsden, Nov., 1907; Chas. Coad, Oakwood	100

Building-plan Awards.

Next week a more extended notice of our house, stable and barn plan competitions will appear. The interest taken in these competitions, with the exception of plans for horse barn, for which there was only one entry, was very satisfactory, and the quality of the work submitted of a high order. Meantime, we publish the names of the prizewinners: Competition A, General Barn—First prize, R. N. Banting, Simcoe Co., Ont.; second prize, Wm. J. Davis, Lambton Co., Ont. Competition B, Horse Barn—First prize, H. B. Atkinson, V. S., Oxford Co., Ont. Competition C, Farmhouse—Tie between Mrs. E. Patterson, Lincoln Co., Ont., and E. F. Augustine, Lambton Co., Ont. First and second prizes will be divided equally between them.

Destructive Insect and Pest Act.

An important Act, bearing the above title, introduced as a Government measure by Hon. Sydney Fisher, Minister of Agriculture, is before Parliament at Ottawa. The presence of the destructive Brown-tail moth in a district in Nova Scotia, and the discovery this season of more than 100 nests containing larvae on nursery stock from abroad, together with the peril of a new form of rot on imported potatoes, are among the immediate reasons for extensive and stringent powers in the hands of the authorities to cope with such enemies of agriculture. Our readers are aware of the disastrous depredations of the Brown-tail and Gypsy moths in Massachusetts, where both Federal and State authorities are engaged in a costly but imperative conflict with them. Through the co-operation of the Customs Department and nurserymen, the Department of Agriculture, at Ottawa, is meeting the Brown-tail moth emergency by a rigid inspection of all packages, destroying nests and affected plants, under the general direction of Prof. Hewitt, Entomologist at the Central Experimental Farm. But the old San Jose Scale Act does not cover the many dangers to which horticulture and agriculture are now exposed, nor is there other adequate legislative machinery in existence. The new Act authorizes the Governor-in-Council to make prohibitory regulations in relation to importations or sale, inspection, treatment, destruction of plants, vegetable matter or packages, granting compensation not to exceed two-thirds the value; confiscation, appointment of officers, and providing penalties not exceeding \$100 fine or six months' imprisonment, or both, for contraventions.

Ontario Telephone Act.

Under the terms of "The Ontario Telephone Act," lately introduced into the Legislative Assembly of Ontario, a large measure of control of telephone companies and systems, however organized, would be vested in the Ontario Railway and Municipal Board. This Board would hear complaints or requests from any party interested regarding the working out of the Acts already in force in the Province, and have power to compel performance of duties. All telephone tolls to be charged by any company or person shall be subject to the approval of the Board, and the Board shall determine and prescribe how tariffs of these shall be published or kept open for public inspection. In the case of companies who fail to come to any agreement for connection or intercommunication in the public interest, the Board has power to compel them to do so upon such terms as it may deem advisable. All agreements between companies to be subject to approval of the Board. Clause 11 is very important. It expressly states that no agreements between companies to increase the cost of telephone service or to restrict competition shall be valid until it has been approved by vote of the ratepayers affected. Telephone service is to be furnished on request to any person complying with regulations, unless the cost of installing such shall exceed fifty dollars.

Weekly Stock Marts.

That a weekly market should be originated in Guelph, where live stock and other articles of various kinds would be auctioned off, was a suggestion made to the Board of Trade in the Royal City by Lt.-Col. D. McCrae, according to a report in the Guelph Herald. Col. McCrae, in making the suggestion, referred to the success of such sales in the Old Country, where weekly markets are held on different days in different sections, and buyers go from place to place to do their purchasing. Guelph is the center of a splendid section, and the Winter Fair Building contains plenty of stall accommodation. The idea appeared to commend itself to the Board of Trade. The idea is not a new one so far, at least, as pure-bred stock is concerned, combination auction sales of registered animals having been repeatedly tried in Canada, with disappointing results. A purely local, regular auction of ordinary fat stock and farm produce would be somewhat of a novelty in Canada, and, if tried, the experiment would be watched with interest.

One thousand dollars, voted by the Ontario Provincial Legislature for the purchase of serum, is to be applied to the treatment of people who have suffered contagion from rabies. Hon. Mr. Hanna, Provincial Secretary, has been in correspondence with the head of the Pasteur Institute in New York, and is reported to have been assured that the treatment could be secured in Toronto for approximately \$20 per patient.

That negotiations are in progress for a consolidation of Canadian iron and steel interests, somewhat on the lines of the United States Steel Corporation, is the somewhat disquieting purport of a rumor published by the Engineering and Mining Journal, of New York.

An Eight-hour Day for the Farmer

Editor "The Farmer's Advocate":
I fancy the farmer who reads this head-line will say, "Well, now, what fool thing is this?" Fact is, the farmer is liable to be so taken up these days by the (to him) pleasant reading in the market reports, he will not notice anything else unless I put a striking head to it. But why should an eight-hour day for the farmer be considered out of the way? Is there not now before both Houses (and almost all over the world) a movement going on to secure an eight-hour day for the workman (with a full day's pay)? Surely a farmer should be considered a laborer. Some, indeed, have to do all the work on one hundred acres, and that is surely going some.

Has the urban laborer degenerated so he cannot do over eight hours a day, or does he want more time for sport? The farmer surely is entitled to as good a time. Or is the purpose of an eight-hour day to give more work to others; that is, make work for three men what two ought to do? I don't see as the farmer can kick at that, because he will have three mouths to feed, instead of two. But perhaps the eight-hour-a-day man expects to live upon two meals a day. But whether he intends to or not, that is what it must come to.

The Good Book says, "He that will not work, neither shall he eat."

Farmers have been working from twelve to sixteen hours a day; some of us, indeed, have put in our eighteen hours a day—testing cows, and trying to do work a little above the average.

This is all foolishness, according to the latest lights. If a farmer would only work eight hours a day, and produce half as much as he does—and if he keeps stock, he would only get one-third as much—he would get better prices. Yes, double and treble the price. And surely that would be good for the farmer. It seems getting to be, "Every man for himself, and the Devil take the hindmost."

But the farmer would rather produce more and till his farm properly than see it overgrown with weeds; and that is much better for all. But how is he to produce more without more help? That is his trouble now. By making the urban laborer's days shorter, and keeping up the full day's pay, no one but a fool can be expected to be had to work on a farm, and they are no use. As it is now, though many laborers are brought into the country to work on farms, yet help gets scarcer. And no wonder; it is just like trying to fill a barrel at the spigot with the bung-hole open. It is no wonder that prices for food-stuffs are rising. And they will continue to rise. Every town and city in the country is trying to add to its population, as if the natural increase was not enough.

The movement of population is naturally from the country to the town and city. Man—and woman, too—likes to be in a crowd. The wild beast and domesticated, alike, congregate in herds and flocks. The native and civilized people alike want to be together. Why talk of the peace and quiet of the country? Man's nature craves excitement. Man, from the boys on the street, to the boys in Parliament, does not want peace. It is jungle and quarrel.

"Next to nature!" Not much! Man is not a hermit (only when disappointed in love); he wants to be with the crowd. There is only one thing strong enough to keep people scattered, and that is man's desire to get "next" to the dollars. For the hope of gain, man has braved all risks and hardships, from clearing this country and making it habitable, to the almost inaccessible parts, after gold.

Instead of, then, seeking to build up the cities, more attention should have been paid to keep the people on the land. We find towns and cities housing manufactories, giving free sites, loaning cheap money, and exemption from taxes. What is done for the farmer? Nothing. Business has been protected by tariff laws. Trusts and mergers have been formed in order to pay big dividends on watered stock.

What protection has the farmer had? None! To keep him quiet, he has been told that building up these industries would give him a better market for his produce. And it has, sure. The farmer will now surely get his innings. But now he is about getting good prices, what a "howl" is being made. But five years from now the prices of to-day will seem mighty cheap.

No power can stop this mighty sweep. Irresistible will the consumption increase faster than production. It is much easier to get people into town than to get them back upon the land. It is natural for man to love excitement and the crowd, and the country is too tame for one used to the excitements. Soon there must be many unemployed. Indeed, there are now in the cities of the older countries, but of what are the unemployed. Naturally, business men want the best they can get, so that the unemployed are the indolent, careless and physically unfit. It is not from these a farmer can get any benefit. And there is no use looking for increased production for some years; when prices get good and high

for farm produce, and there is more money in farming than anything else, then, at least, we may expect the flow from the country to town of those born in the country to diminish. But by that time the urban population will have so greatly increased that production of food cannot overtake consumption, and we may be very thankful with things as they are. If there is any considerable area stricken with poor crops, there will be many that will have something to howl about.

Labor unions will be "cutting a whip for their own back," or saving their muscles and starving their belly, if they get an eight-hour day. It will not injure the farmers, but make prices higher. Labor unions can do a lot of good if wisely directed. And they want to use their influence to lessen the middleman's profit. It is he that has been making his money most easily. Business methods are crude, as shown by the ability of the departmental stores to outsell the small stores. We are getting too many wealthy men for the common good. He who makes his money by industry and business ability is of a benefit to the country, but he that makes his money by combines, trusts, etc., robbing people by laws in his favor, is no better than a highway robber. And they who make such laws are accomplices. Some who pass now for statesmen will be known to history as time-serving politicians. Laws they have made have built up the urban places at the expense of the rural, and a hungry people will curse where others have praised. Is it any wonder that General Booth thinks the world must come to an end soon? Poetic justice would be that the eight-hour-a-day man should die of slow starvation; the hoodlers and grafters choked with money down their throats; combine and trust promoters drowned in their own watered stock, and so on and so forth. And this is called an enlightened age. Some one had better turn on the light. GEO. RICE.

Cost of Living.

The current issue of the Labor Gazette gives a statistical statement as to the wholesale prices of animals and meats from 1890 to 1909. Averaging the prices for all meats, the statement shows that during the year 1909 wholesale prices were approximately 48 per cent. higher than during the ten-year period from 1890 to 1899, and that, compared with 1906, they were fully 77 per cent. higher. The issue also contains a table showing the prices of thirty-four commodities which enter into cost of living at the more important centers of population throughout Canada. It is the intention of the Department to publish quotations for a similar list of commodities from month to month in the Labor Gazette, thus making it possible to ascertain by comparison the changes in retail prices and the cost of living in the various parts of the Dominion from time to time.

Surprise was expressed from Washington last week that no steps had yet been taken by the British or Canadian Governments looking to the determination of the question as to whether Canada, in view of her tariff treaties, was entitled to the minimum tariff rates under the Payne-Aldrich Act. Apparently, the Taft administration is reluctant to allow the maximum tariff rates to come automatically into force on March 31st, and wants to be shown some good and sufficient reason why it should not do so. It is a neighborly spirit, and does the United States Government credit.

The appointment of a Royal Commission to investigate the conditions governing the fruit-growing industry of the Province was urged by the speakers of a deputation which waited upon the Ontario Minister of Agriculture, Hon. J. S. Duff, last week. The commission, it was pointed out, would be able, by reports, to give statistics and other valuable information showing fruit-growers what could be done to improve the industry. Hon. Mr. Duff thought that the object could be better served by the Departmental bulletins than by a commission, but promised to bring the matter before the Government.

The news that the Standard Oil Company is behind the big scheme for creating power by damming the St. Lawrence at the Long Sault Rapids should be all that is needed to incite every patriotic Canadian to most strenuous resistance to a project that would not only alienate from public control a great natural resource in water-power, but would place an important section of our great waterway system in the control of a foreign corporation.

"For the information of hon. gentlemen," announced Sir James Whitney, in the Ontario Legislature, last week. "I may say the time is not far distant when the Government will take drastic steps to stop the careless driving of automobiles. These chauffeurs must be taught that they cannot, with impunity, drive with utter recklessness over the streets and highways in this Province. The rights of the people must and shall be protected, and this reckless conduct shall cease."

Why Boys and Girls Leave the Farm.

One of the most important questions to farmers, and to all those who have the welfare of the country at heart, is the vexing and much-discussed one of "How to keep the boys and girls on the farm." Many remedies are suggested—all good ones, more or less—yet ineffective, one and all, because they do not touch the root of the evil.

There is much of ambition in the young heart, much of the desire to get rich quickly, much of the resolution to see more of the world than the little piece bounded by one's own county lines; but it is not all that that allures most the youth and maiden to the cities, although each has a drawing-string of its own, being part and parcel of the higher plane of civilization which is the lode-star of all great cities, for here is the base—plain truth. The boys and girls leave the farm because of the rudity of country life. Youth is the time of life overflowing of ideals, illusions and aspirations; the time of life when we are most apt to not give due weight to the enduring qualities of the heart against the more showy ones of mind and manners; the time of life when we fall most easily under the captivation of what pleases the eye and flatters the emotions. The country swain who goes to the city with his load of produce feels out of place and awkward as soon as the shadow of his wagon descends him. It is all very well to sing of the nobility and independence of the farmer's calling, but all the same, the young fellow envies with bitterness the easy style of speech, manners and dress of the city man, while at the same time his mind belittles his condition of life, while it exalts, in comparison, that of the man to whom it permits dress and deportment, showing at his best at all times. The same feelings apply in a larger sense to the country maiden, for the little niceties and refinements of life are still more important to her feminine heart. She does all her shopping in the shops adjoining the market square for the pitiful reason that she cannot bear the idea of showing herself in the large uptown emporiums in her shabby, dusty hat and frock, and just here is a point for Women's Institutes and Country Periodicals: Teach the country women some wisdom and taste in the matter of dress. If, when travelling long distances on country roads, they would wear some such cap and all-enveloping coat and veil as the motor-lady finds indispensable, and which could be removed in the city, if necessary, they could then feel fresh and neat, instead of having to smart under the disproving or wondering look of even the shop-girls and dudish salesmen from whom they have to buy, and who could not be where they are were it not for the farmer's money.

Remember, that I am not writing this in a spirit of criticism, but of helpfulness. Eschew for travelling all fripperies, fol-de-rols and artificial flowers, and stick, if possible, to a good tailor-made of dark material, which will never be out of place, no matter where you go. The well-dressed men and women have confidence in themselves, and inspire confidence and respect in others. This seems a digression, but in reality it is not, for this matter of dress is a vital part in the rudity of farm life which, as I have said before, is the first and foremost reason drawing the feet of the younger generation citywards.

Young people read more nowadays than they did even a score of years ago, and reading, as well as catching every now and then glimpses of city life, they come to despise, in spite of themselves, their own rough manner of existence. The farmer's daughter, on the city street, seeing the deferential courtesy accorded by the well-bred city man to his lady companion, who takes it so naturally and unconsciously as a matter of course, feels a lump rise to her throat and a mist to her eyes, that such things are not for her. Alas! she thinks, what is she not missing of the little things of life, which, after all, are the very ones that make life worth living. And it is not the young only who are affected thus, but the old, also, for is it not an open secret that old age is more sensitive than youth? The farmer's wife, withered and worn, will note the attentive helpfulness of the elderly gentleman as he hands his dainty little old lady in her low coupe, with the bitter reflection of how her own spouse unconcernedly allows her to scramble, unaided, with a basket on each arm, to the high wagon seat, where he sits peacefully smoking his pipe.

I know a country woman who has passed her whole life on the farm. Some time ago came the long-wished-for trip to the Capital of the Dominion. After she came home, I was most eager to know what had most pleased her of her new impressions.

"I am almost ashamed to confess it," she said, as a flush suffused her gentle face, "still, I must tell you. It is this: In the afternoon I had occasion to go to the Bank Street Chambers and to take the elevator for the upper floor. When I stepped in, the other passenger, a man of about fifty, for he was bald on top and gray at the temples, took off his hat, and remained uncovered until I stepped out again. It was the first hom-

age of the kind ever offered to my womanhood, and my heart could feel nothing else all day."

Poor woman; good-looking; modest to a fault; a born lady, if God ever made one, yet in her thirty-five years of life in the country she had never seen a man lift his hat to a woman.

And now comes the crux of the question: Why are farmers rude of speech and manner? Is it because they till the soil? Is it because they are in close and constant companionship with nature? Emphatically, no! What, then, makes them so? The women. Yes, the women—mothers, wives, sisters, sweethearts—they that feel the unthinking rudeness of the men of their world to a degree that the men themselves could never understand, are the very ones who are wholly—shall I say criminally?—responsible for it; for let me say this much for the farmer, that, to be different from what he is, despite the training of his womankind, would be well-nigh impossible.

In the city the boy is taught courtesy from his earliest years, for his mother knows that his success in life, whether in office, store or society, will depend largely on his manners and appearance. Besides, he grows up in keen competition with schoolmates and playmates, which is a great safety-valve to let off the extra steam of a boy's vanity and conceit. The city boy knows that, to succeed, it is not enough to be merely a boy, but he must be as smart as the next boy, and nearly as smart as the next girl; for the city boy is not so apt as the country boy to be filled with the idea that to be born a boy is to be endowed mentally and spiritually to a degree unattainable by a girl.

In the country you will hear people extol bluntness as a virtue, and condemn smooth manners as the cloak of deceit and design. And the sin of it all lies, I repeat it, with the women.

Let me explain: Boys, naturally, are the desideratum of the farmer building up a family, for it is the boys who will carry on the name and the farm, and who save the expense of a hired man as soon as their immature hands can hold the plow handles. Girls, you see, are not much use, for they only help the mother, which is never really necessary. So they only figure in the farmer's mind (not often in his testament) on account of their frills and furbelows. But if the boy is everything to the father, it is left to the mother to spoil him, and, as is the way with women, she does it thoroughly.

No sooner is a baby-boy born than he develops according to the view of his fond and foolish mother, a surprisingly superior manner. No mere girl-baby could ever suck in such a masterful way. Why, even the way he kicks his feet, with their promise of a large understanding, is a revelation to her worshipful mind. That boy is born to command, and so from his very first cry she begins to obey, and the young tyrant—not by nature, but by training—is encouraged to lord it over her and everyone else, especially his sisters.

Then, as he grows to manhood, it becomes steadily worse, for mother, sister, sweetheart, praise, flatter, and respectfully defer to his opinion. One and all wait on him constantly, and admit his superiority in every way, as a matter of course. If he wishes to go out, his mother and sisters bring his coat, brush his boots, and help him with his collar and cravat. If he comes in, he throws everything off for them to pick up and clean. Every festival, every social gathering, is but a nestful of opportunities for the growth of his self-importance and vanity, for mothers and daughters, with one accord, vie with one another to make him think of but himself, and no one else. If the poor fellow happens to have a fine farm, in addition to any pretense of form and figure, his doom, as regards courtesy and unselfishness, is sure and certain.

It is always an understood fact in the farmer's family that the farm is for the boy. If there is more than one boy, the farm may be divided, or else every nerve is strained, every penny saved, to buy each a farm, and thus settle them in life. As for the girls, who have strained and saved with the rest, they are left to catch a farm of their own by catching a farmer with it; and what way to catch a man who from his cradle has been fed on deference and flattery? Why, more deference, more flattery!

Seen in this light, is it any wonder that the women of the farm are not accorded proper respect, and, in fact, do not feel any for themselves. Can we blame them for exalting the male sex, when, from their very birth their rights and privileges are qualities and quantities undreamt of by anyone concerned. We read of the Chinese and their low estimate of baby girls. Are we, with our vaunted civilization, any better in that respect? Witness the announcement of a birth. Except it be in a family where boys are already superabundant, there will be a minor chord of disappointment, almost of shame, plainly discernible, if it be a girl. On the contrary, how the pride and satisfaction will ring if it be a boy. And as it is with the parents, so it is with the relations and friends. They will dissimulate their disapprobation of the girl very little. I have heard one grandmother say to her daughter, mother of three successive girl babies, "Ah, my

dear, you think that you love your girls and that they love you, but you will never know what love is until you get a boy."

When so little consequence is attached to the girl, and so much to the boy, is it anything but natural that the girl grows up ever self-sacrificing and self-effacing, and the boy selfish and domineering?

It is this kind of influence that has biased the mind almost to the point of uselessness of a great many farmers. It is that which bars them from financial success and mental improvement. It is that which kills the social life of country communities (for each farmer is so bearish that he can't bear the other). It is that which keeps them away from Farmers' Institutes and Agricultural Colleges, for they think no man can teach them, as they know it all. They are so self-satisfied and independent that they shut themselves in their obstinate egoism from the advantages that men in other walks of life have proved their safeguard and means of wealth. Take co-operation, for example. In no other walk of life have co-workers repulsed so long and stubbornly the immense benefits of organization. With co-operation throughout the country, farming would at once rise to its proper level as a profession, by increasing fourfold the profits that it brings the farmer under the present individual system. With co-operation, power machinery could be bought which would reduce the drudgery, as well as the expense. Then, too, all purchasing could be done at a much lower figure; while farm produce, held by organized producers, would fetch higher prices. Milk, for instance, could be taken to a central point, bottled and delivered, at treble the profit and infinitely less labor than under the present way.

As things now are in the country, many a farmer has to stand by helplessly and watch his house or buildings burn to ashes, while, under the co-operative system, each community could have complete fire protection at comparatively small cost to individual farmers.

And now, as everything depends on the upbringing of the child, I hark back to the parents. Do not expect your children to burn with enthusiasm for farming as a life-work if you yourselves have not been able to make it profitable and attractive. If you have so managed that you have broken down before your time, and go about always disheartened, disordered and dishevelled of appearance, do not blame your boys and girls for refusing to submit to a future prospect of similar conditions. If they show a strong desire to migrate to the city, and you as strongly desire to keep them on the farm, try this plan: Pack them off to a good agricultural school where they will get the learning that will make farming interesting; and when they come back give them a hand in the management of the farm, making sure that they receive their share of the returns. The wisest saving is not of money.

In conclusion, I would say to the mothers, wives, sisters and sweethearts of the country, the sooner you educate the men of your world to the right value of women (at present you are estimated according to your working and child-bearing capacity), and to the courtesy and consideration which is their due, the sooner will you bring to your surroundings the advantages that glitter to the eyes and appeal to the heart of the young men and women of the farm; for it is only the farmer's own will, derived from his faulty education, which keeps them away. MRS. W. E. HOPKINS, Russell Co., Ont.

Domesticating Fur-bearing Animals.

Editor "The Farmer's Advocate":

Permit me, through the columns of your valuable journal and magazine, to ask, is it not possible to add another industry to the agricultural population, by domesticating some of the fur-bearing animals?

Some of the fur-bearing wild animals of the country, if not better protected, or domesticated, that they may perpetuate their kind, must soon become extinct. As a proof of this, I may mention the buffalo, which but 25 or 30 years ago were so numerous that few entertained a thought that they would soon be exterminated. That they were ruthlessly hunted, slaughtered and wasted, is generally admitted. The few that are now left are protected. The buffalo robe is now almost a thing of the past. The wild pigeons—I think I may say, a harmless bird—once very numerous, have almost entirely disappeared; and if something be not done to save some of our native wild animals and birds, they must eventually disappear, and I think I may safely say some of them will be much missed.

We have yet the fox, otter, martin, mink, raccoon, lynx, and the muskrat. The bear is probably too large and ferocious a prowler to be much missed. The marten, mink, lynx and fox are also very mischievous prowlers around the farmyard, and are rarely given any quarter when discovered near the hen-coop. But the furs of some of these animals are very valuable, and, if they could be raised in captivity, would be very profitable. It

may be that some farmers who live near the edge of the natural forest might succeed in taking some of these animals when young, and, by studying their habits and inclinations, succeed in raising a very profitable little animal. I must say here that this would be largely, if not altogether, an experiment, as nearly all the fur-bearing animals are shy to produce in captivity. Why this should be so is difficult to say. But if a means could be found by which they could be made profitable in this manner, a new industry would spring up which would be interesting and profitable. It may be said this has already been tried; but some industries have been tried very many times before developing into success.

The black fox is the most valuable of all Canadian furs. Such being the case, the fox is generally selected as being the most desirable for experiments. There are from four to six at a litter. A good black fox being worth \$400 at nine months old, when they can be had, they are worth looking after. I have known several small fox farms. Each of them were taken from their burrows when cubs. Some of them were kept in captivity for several years. One of the number was fairly successful, and another quite successful, there being a litter every year. Though the sire and dam were crosses, the progeny were either black or crosses, about half each. Why the latter should have been a success, it is difficult to imagine, as no attempt was made to keep them in anything like their native element, the enclosure in which they were kept being not more than seven feet each way, and dark, and it appeared to me as though they got very little attention. I mention this instance as being the only one which was a success out of about half a dozen which came under my notice, which, on the whole, were a failure. But perhaps, had they been better understood, might, as a whole, have been a success.

The otter, which is the next most valuable fur-bearing animal, is a strong, hardy and vigorous little fellow, and is said to be easily domesticated when taken young, and makes a good pet. But no attempt at otter husbandry has come under my notice. The same may be said of the beaver; probably the latter is more docile. The mink, a very valuable little animal, not weighing more than two pounds when full-grown, in a northern climate, I am aware that some attempts have been made at mink farming, but have not heard of any success. From what I have learned of them, they are a very strong and vicious little animal. If a few are put together, they are very liable to fight and kill, as they generally fight to a finish.

The skunk (Alaska sable), were it not for their great failing to produce a more desirable perfume, might be a success in captivity, as they are very productive. The only trouble with them is that they incline to kill their young. The cause of this might be found. The skunk is one of the animals which hibernates in their dens, and come out in the winter. The lynx is a peculiar animal; incline to lay around, with no desire to take any exercise; will gorge themselves if given enough food to do so; great care should be taken to feed them a moderate amount of food at a time, and make them take plenty of exercise, otherwise they soon die off.

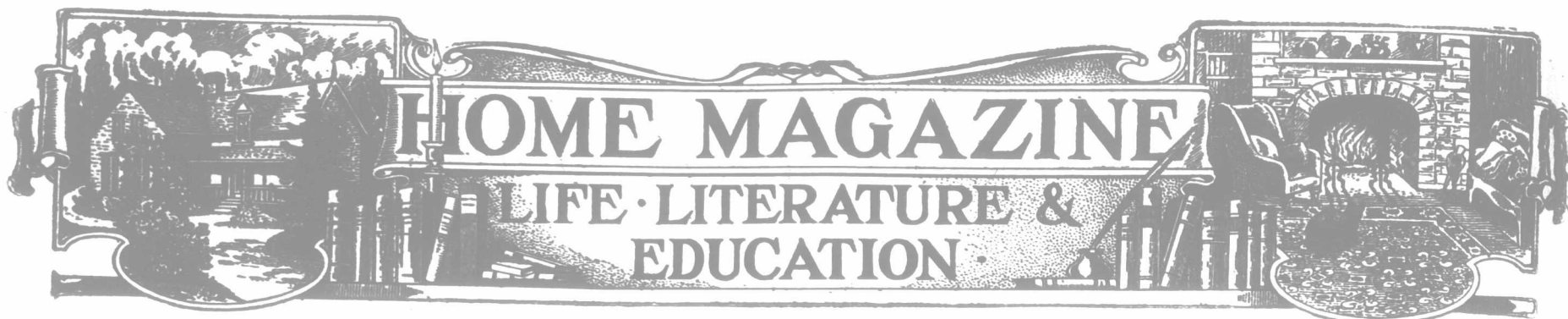
The buffalo is a big, strong and robust animal. It is said to be fertile in captivity, and, although he may be difficult to manage at times, I see no good reason why he might not be placed amongst the domesticated animals, as the buffalo robes, so essential in winter, are now sold at a figure that would make them profitable.

Now, Mr. Editor, might something not be done to preserve some of our native animals and birds, and make them profitable, as well. The Ontario Agricultural College, at Guelph, is an institution established for the benefit of the country and the public at large; and also the Macdonald College, at St. Anne de Bellevue. Might they not engage a naturalist, with all the assistance he may require, at one or both of these places? Or, the naturalists might be equipped in some of the national parks or Government preserves, where they might have a more favorable opportunity of studying and experimenting with our native animals.

I know there is a law which prevents anyone from taking or having in possession any of the animals mentioned, but the Government would not prevent anyone who took them in good faith for a purpose which was likely to be a benefit to the public at large.

Montreal, Quebec. SUBSCRIBER.

Prof. C. C. James, of Toronto, Deputy Minister of Agriculture for Ontario, is not disposed, it is understood, to undertake the principalship of the new Macdonald College at St. Anne de Bellevue, Que. Though in many ways a tempting position, he regards his present opportunities for the public service of agriculture and the country generally so outstanding, the Provincial agricultural staff so capably manned, and the results of future work so promising, as to outweigh, in his judgment, those of the newer educational field. Ontario could ill afford to lose his distinguished services, and will regard with undisguised satisfaction his decision to remain in the Province.



Will some wise prophet arise to explain the significance of the British election results? Final returns assign the Liberals 275 seats in a House of 670; the Unionists or Conservatives, 272; the Irish Nationalists, 82, and the Labor Party 40, while one member is variously classed as Unionist and Independent. The Ministerialists count on negative, if not positive, support from the Labor and Nationalist sections. Just how dependable this may prove, remains to be seen. Meanwhile, we are left wondering what the popular vote really indicated. The primary and fundamental issue should have been the cause which precipitated the election, namely, the Lloyd-George Budget, and the action of the Lords in virtually rejecting it, though doing so in a diplomatic manner, as though simply referring it to the electors for popular pronouncement. But, having forced an appeal to the people, the Lords and the party to which most of them belong complicated the issue by introducing tariff-reform proposals as a substitute for the means and sources of taxation embodied in the budget. Thus, the election was fought, after the usual manner of elections, on a complex issue, complicated by a great variety of personal, political, social and temperamental factors. For instance, rural England, where the people cling conservatively to established institutions, where the influence of the Peers is strong, and where a considerable proportion of the people feel themselves helplessly dependent upon the aristocracy and a maintenance of the existing order of things, gave strong support to Unionist candidates. Intimidation and plural voting were other handicaps of the Ministerialist cause, while the Government's alliance with the radical Nationalist and Labor parties undoubtedly reacted to its disadvantage in many parts of England. About all we are sure of is that Ireland wants Home Rule (though as to what measure of it, the Irish party itself is not unanimous); the great industrial districts are opposed to tariff reform, especially the taxation of food-stuffs; Scotland probably desires free trade and Reform of the House of Lords, while Wales is presumably proud of Lloyd-George, enthusiastic for the Budget, and in favor of disestablishment of the church in Wales. As to what proportion of people throughout the United Kingdom favor the Budget, what proportion favor reform or limitation of the power of the House of Lords, and how strong is the sentiment for tariff reform, we are left each to his own guess. The most positive moral of the outcome is the desirability of a system of initiative and referendum by which the sentiment for, or against any particular measure enacted or proposed may be separately sounded, without the complication of the personal factor, or a school of red herrings drawn across the trail.

The enormous strides in the foreign trade of Great Britain and Ireland during the last half century are evident from the following figures: In 1854 the imports of the United Kingdom amounted to £152,000,000, the exports to £97,000,000. Last year, according to recent statistics, the imports totalled £624,000,000, and the exports £378,000,000.

The Board of Agriculture for Ireland is about to establish a School of Forestry at Auhrane, Ballygar.

Co. Galway; Auhrane Castle, with 300 acres of land, having been recently handed over to the Board by an official of the Estates Commissioners.

Eugene Antoniadi, who has been making a study of the planet Mars with the telescope at Meudon, the most powerful in the Old World, disputes the observations of Schiaparelli, endorsed by Prof. Lowell, that there are artificial canals on the planet. He states that there is no trace of geometrical structure, and that the appearance is perfectly natural, comparable to that of the moon.

Governor Hadley, of the State of Missouri, is a firm believer in life on the farm, both as the ideal existence, and as a partial solution of the high cost of living problem, and recently he demonstrated his sincerity by buying a 120-acre farm, to which he will move his family. He says he will raise stock and poultry, and devote his spare time to scientific farming, as taught by the Agricultural College at Columbia.

Those who are interested in the question of "A More Beautiful Canada," will be pleased to hear that no fewer than 270 municipalities, including the thickly-populated districts of Ottawa and Toronto, have petitioned the Legislature of Ontario to frame the new assessment law so that municipal councils may, if they think it desirable, levy a lighter rate of taxation on improvement values than on land values. If the petition is granted, another relic of the dark ages will have been thrown into the limbo of the things that have been. So far, there has been little encouragement for the land-owner to plant out trees and shrubs, make his lawns beautiful, and put up fences that would be a credit to the place. If he did so, he only had to pay higher taxes, on the ground that "his property was worth more." As a rule, however, the man who beautifies his home is not the one who is most anxious to sell it. One puts down "roots," as it were, with the roots of shrubs and trees, and the tendrils of one's heart cling all the closer to the old home as the tendrils of the vines climb higher and higher. These things of beauty are they which help, as strongly as things inanimate can help, to make the difference between a stopping-place and a home. They certainly bring in no money, and they quite as certainly entail for the owner a great deal of expense and care. Their value is solely an aesthetic value. Why, then, should the man who chooses to indulge a bit of refined taste, be obliged to pay extra for it? Good speed to the petition, and all other efforts to do away with ugliness and promote beauty and refinement.

Macdonald College Principalship.

Macdonald College has reached a critical stage. Planned on a broad scale, it embodies a unique but thoroughly modern concept in education. It is equipped to serve Quebec and Eastern Ontario, as the Ontario Agricultural College and Macdonald Institute serve Central and Western Ontario, training not only agricultural

students, but also school teachers, that they may go forth equipped to commence in the rural public schools the phases of education which culminate logically in the agricultural college and domestic science classrooms. Ideally situated, splendidly equipped, and manned with an efficient faculty, the institution is fraught with possibilities of incalculable service to Canadian agriculture.

Dr. Robertson's departure has left the principalship vacant. If the College is to achieve its purpose, that position must be filled by a strong man. And he must be not only a man of intellectual power and attainments, moral character and social qualifications. He must be a leader. Still further, he must be a thorough agriculturist, a man whose sympathies and interests are heartily with the farm, who has broad knowledge of agriculture and a commanding position among agricultural authorities. Only such a principal can command the enthusiastic loyalty of the staff, giving impulse, direction and character to the work. The history of agricultural colleges in America is studded with examples of those whose identity has been submerged in the large academic institutions with which they have been affiliated, thanks, in part, at least, to presidents who were weak, or whose training and sympathies were too purely academic. The Board of Governors of McGill University must not choose such a man. The principal they select must be a big man, a leader and, last, but not least, an agricultural man in the broad and thorough sense of the term.

THESE WAILS COME NOT FROM THE FARMERS.

"Instead of boycotting beef, why don't you accustom yourself to eating the cheaper cuts?"

"There are no cheaper cuts. There are only the expensive, the more expensive, and the unattainable."—[Chicago Tribune.]

Mary had a little lamb,
Its fleece was white, 'tis true,
She sold it to the butchers,
They did some fleecing, too.
—[Philadelphia Evening Telegraph.]

Our English Letter.

IV.

HERE AND THERE.

I think I mentioned in my last letter how often the name of Canada appeared in the columns of the English press, not only with direct reference to the political issues of the day, but under such headlines as "The Call of the West," "Ready-made Farms," "Eager Rush to Learn of New Canadian Schemes," "Why Go Out to Canada?" etc. The statement was made that, by the close of 1909, 70,000 settlers would have migrated from the United States into Western Canada, bringing with them an average of £200 per settler, adding, that since this century opened, well over three hundred thousand men from the United States have carried their brains, capital and working knowledge of similar conditions into Canada. The writer adds: "There is no need for Great Britain to supply any answer to Chicago's rather anxious question, 'Why go to Canada?' A well-known man in the United States has answered it already by the assertion that Canada

has made more progress during this century than any other country in the world."

A few days ago, at the Royal Colonial Institute, a stirring address was given upon the subject of the developments of the Northwest, and, as a means thereto, the scheme for providing ready-made farms for emigrants to Canada, which originated with Sir Thomas Shaughnessy, the President of the Canadian Pacific Railway Company, was propounded, and created much interest.

This scheme, it appears, has already met with a remarkable response, and the Land Department of the C. P. R. at Charing Cross was yesterday besieged with applicants. Many of these, indeed the majority, had capital, some more, some less. Some were young farmers, and the better class of farm servants; some were men engaged in London in various callings, but who had originally come from the country, and preferred country to city life; but inquiries came, also, from university men, lawyers, and railway guards, all alike anxious for particulars, without venturing an opinion on the feasibility of the proposed scheme. That it should be considered at all, surely is a proof of the recognition of the great fact of Canada's wonderful progress, and of the opportunities she offers to the intending settler—opportunities, however, which should surely be afforded, first of all, to immigrants hailing from the Motherland, rather than to aliens in whom loyalty to their adopted country may be grafted, but to whom it is not inherent. There seems every likelihood that not only the existing means of transit, but also the new ships which, report says, will supplement them, will be thronged by men, women and children, "pressing forward to the new land of hope and achievement."

The problem of the unemployed seems as far off from solution as ever; indeed, farther off, because their ranks are ever growing. This week sees the removal from the London streets of fifty more of the old horse-drawn omnibuses, owing to the amalgamation of the London General Omnibus Company with the Vanguard and Motor Road-car Companies. This at one blow throws out of employment fifty drivers, fifty conductors, and hostlers, stablemen and others to the extent of at least one hundred more. Many of these men had given over thirty years of faithful service. "Most of us," they plead, "have built up decent little homes. We have brought our wages back regularly to our wives and children, and some of us have had to support an old father and mother, too. And now we are, so to speak, upon the kerb." Surely, in such a case as this, special efforts will be made to save them from destitution, from the despair which drives so many human wrecks into that vast army of outcasts who night after night take possession of one of the most magnificent thoroughfares of the metropolis, the Thames Embankment, awaiting their chance for the food and shelter which is extended to as many as their funds permit, by such charitable organizations as the Church Army, the Salvation Army, etc. How to sort out of this "solid phalanx of misery" the deserving, whose cry is "Give us work," from the incorrigible idlers who would not work if it were given to them, is a matter of no small difficulty to the noble men and women who give of their time and their substance in the cause of

humanity. A writer on the subject of "What Can be Done With These Outcasts?" protests against the use of the Thames Embankment "as a corral in which to separate the sheep from the goats, to divide those who can work from those who will not work, and to see to it that work is provided for the unwilling, as well as for the willing." "Now," he says, "the Embankment is a place to avoid after dark, unless you seek to harrow up your soul," but the problem meanwhile remains, although there seems now less reason to fear than was the case before more stringent laws were enacted in the Dominion, that these human derelicts would be sent across the seas, and the solution of the problem left to Canada.

H. A. B.

A Morning's Adventures with Autos.

'Twas a morn of early autumn,
When the leaves were faintly brown,
That I harnessed Maud and Katie
For a pleasant jaunt to town.
Cousin Jennie sat beside me
In a suit of latest mode,
Maud and Katie beat a music
On the smooth, resounding road.
But a strange, unearthly bellow,
Suddenly beside us rung,
And we, by the startled horses,
Almost in the ditch were flung.
By us flashed an automobile,
But from those enthroned within,
Nothing that was sublunary,
Might a moment's notice win.
Nose and chin were elevated
As they swept in triumph by,
As if they were aviators
Sailing through the upper sky.
When, half choked with dust and blinded,
I had calmed the frightened pair,
Jennie leaned to me and whispered,
"That's the automobile air."

When again our team were pacing
At a gentle, steady stride,
Rushing like a maddened demon,
We a coming car descried.
In a blur of dust and vapor,
Puffing, buzzing, on it swept,
Disregarding all our signals
They the middle roadway kept.
And with fixed and stolid faces
They the rearing team surveyed,
Wondering why we had presumption
Their dominion to invade.
Such a glance might Jove Olympic
To a crawling earthworm cast,
If it dared to turn and wriggle
While he crushed it as he passed.
As they vanished in the distance,
When again had cleared the air,
Jennie leaned to me and whispered,
"That's the automobile stare!"

Soon, as we a hill ascended,
On a narrow road, and steep,
Came a car behind approaching,
Struggling hard and panting deep.
Since there wasn't room to pass us
And we couldn't reach the top,
They were forced to slow their engine,
And, through loss of speed, to stop.
While they yanked and cranked to start it,
We proceeded on our way.
Oft a single glance betokens
More than language can convey;
And if glance could scorch and wither
As a burning furnace blast,
By their glance we had been shriveled,
When again they glided past.
We had too much self-composure
For their angry look of care;
Jennie merely leaned and whispered,
"That's the automobile glare."

Gaily, then, we trotted onward,
Till the town at last we neared,
When a busy group before us
Gathered round a car appeared.
Ladies sat as patient martyrs
On the roadside bank of green,
While their partners, grim and dusty,
Tinkered at the stalled machine.
One was peering at the spark-plug,
One the battery overhauled,
One with pincers, wrench and hammer,
Underneath the car had crawled.
They, with bruised and blackened fingers,
Tested wire and tightened screw.
While, forgetful of the ladies,
Hot and fast the curses flew.
As we trotted by and left them
Loading sulphur on the air,
Jennie leaned again and whispered,
"That's the automobile swear!"

—Lyman C. Smith.

Hope's Quiet Hour.

Some Questions Facing Our Rural Population.

(By Hope Lawrence.)

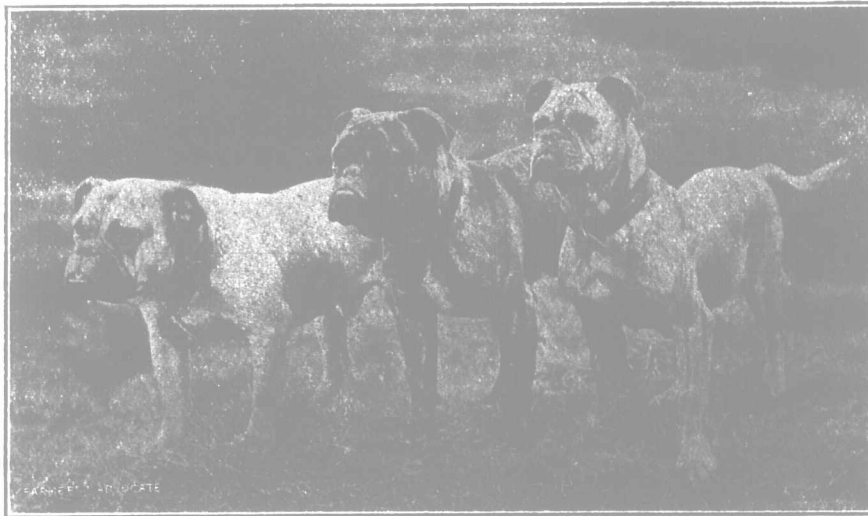
What the Church of Christ can and will do in rural districts, is a mighty question, and it is both urgent and important. . . . Do not many of the boys in our farming country get into trouble because, when not working, they have no other place to go than the steps of the village store, there to lounge and talk? If only some of our wealthy men, who once were country lads, when they return and buy up abandoned farms for summer residences, would take a more practical interest in these lads. Give them land, a club house with gymnasium, baths, etc. If not all these, at least some land which they could call, legally and legitimately, their own, where they could play baseball, football, and athletic games. Are not these boys often driven off from one vacant lot to another by the owners, and even from the village green, as if they injured the grass? May not the country boy be tempted to change the well-known and old lines:

"Water, water everywhere,
And not a drop to drink,"

to

Land, land everywhere,
But not a place to play.

Plenty of room for dives and dens,
Glitter and glare and sin,
Plenty of room for prison bars,
Gather the criminals in.



"We're not 'mad,' but we can't help our looks."

Plenty of room for jails and courts,
Willing enough to pay,
But never a place for the lads to race,
No, never a place to play!

Plenty of room for shops and stores,
Mammon must have its best,
Plenty of room for the running sores
That rot on our country's breast.

Plenty of room for the lures that lead
The hearts of our youths astray,
But never a cent on a playground spent,
No, never a place to play!

Give them a chance for innocent sport,
Give them a chance for fun,
Better a playground plot than a court
And a jail when harm is done.

Give them a chance; if you stint them
now,
To-morrow you'll have to pay
A larger bill for a darker ill;
So give them a chance to play!

Last summer I saw boys, when driven from the steps of the village store, take refuge in the vestibule of the Universalist Church, and then play cards for money night after night. If they did not enter a church's door on Sunday, they sought its shelter on week days. Would not these churches win the men and boys if they provided some place for them to come and have healthy play and recreation? I believe that the physical exhaustion brought on by too much toiling and moiling is responsible for much of the neglect of church duties. If this be

true, the church people ought to make every effort to ameliorate such conditions (just as they are trying to help the factory workers and others in our great cities). It is the true work of the church; for, as the brain is the gateway through which the soul receives the light, should not everything be done to make it ready for the full reception and comprehension of God's love?

Would there not be more men and boys at our services if our ministers were imbued with the spirit of Bishop Wilmer of Alabama,—of whom the following story is told:

When Bishop Wilmer was rector of the little Protestant Episcopal Church at Upperville, Va., he was much worried at the non-attendance at service on Sundays of the majority of the young men of the community. On inquiring, he found that, instead of going to church, they were in the habit of playing marbles for stakes. Marbles, in those days, was a much more serious game than it is now, occupying much the same place in sports as billiards or pool do in these days. Bishop Wilmer determined to break up this practice. He himself had been an expert marble player in his youth. Accordingly, one Saturday he came across a number of young men employed in this game. The good Bishop asked several questions, then challenged the boys to play for "keeps"; they readily assented. Much to their astonishment, the young minister won steadily, and soon they had to go to the store to replenish their stock. Towards the close of the afternoon, Mr. Wilmer had every marble in Upperville. Putting his winnings in a bag, he remarked, as he walked away:

"Now, gentlemen, since you cannot play marbles to-morrow, I hope to see you all at church"—and they all came.

country parish will have a high idea of the obligations of the Lord's Day? Still less will the country man think of his church, if he knows that the city man is in winter a reputable member, and perhaps an office bearer is a well-known, influential city church. More of the decadence of church-going in country districts is due to the example of summer visitors than perhaps we are aware of. So far from being a blessing, the city boarder is sometimes a curse to many a quiet country village. If one should look into our empty city churches in the hot midsummer months, he might find in a corner of each pew an invisible bundle, marked "Mr. So-and-So's religion, to be left until called for." Or "Mrs. Blank's church duties, to be claimed in the autumn." Meanwhile, what are Mr. So-and-So and Mrs. Blank and their families doing? Are they helping the country church?

(To be continued.)

The above very interesting paper was sent to me by my friend and namesake—Hope Lawrence, of Sharon, Mass.—and it will be continued in our next issue. Hope Lawrence has published two very beautiful little books, which carry a special message to "shut-in" people—they are called "A Message of Hope" and "The Light Beyond the Shadows."

HOPE.

Muskoka Free Hospital for Consumptives.

Over 5,000 patients have been cared for in the consumptive homes, and today 315 are in residence; 176 of these are cared for free, paying nothing towards their own maintenance. This is made possible by the practical sympathy and co-operation of large-hearted friends in every part of Canada; \$300 will endow a bed for one year. One dollar will help. Will you send it? Send contributions to Mr. W. J. Gage, 84 Spadina Ave., Toronto, for the Muskoka Free Hospital, and for the Toronto Free Hospital, to Mr. H. P. Dwight, Treas., 347 King Street West, Toronto.

The Beaver Circle.

Story of a Little Cloud.

One day a little white cloud floated slowly across the blue sky. At last, it said to itself, "I am of no use in this world, what am I doing here? I wish I were a flower, or a bird, and could make people happy."

They had had no rain on earth for a long time, and beautiful heads of the flowers were drooping for need of water; the hot sun also had taken nearly all the water from the river, which made the fishes and ducks unhappy. The farmers were also made sad by the sight of their grain withering beneath the hot sun's rays. But this afternoon a lot of little clouds, just like the discontented little cloud, came floating along and joined with this one, and, to the farmers' joy, the rain began to fall very heavily. And when it was finished, with a beautiful, many-colored rainbow shining in the east, the children came running out barefooted to paddle in the pools on the roadside, the fishes were happy again swimming in the river, the grain was lifting its reviving heads, and everything was happy.

Then the cloud broke, and was passing over, when the little cloud said to itself, "I see I need not be a bird nor a flower to make things happy. See! I have made flowers, fishes, ducks, children, and even farmers happy, by only letting the little rain I had fall to the earth."

Wishing the Beaver Circle every success in the New Year.

LOTTIE HOWIE (age 11 years).

Massie, Ont.

How Halloween Came to the Riggs'.

The Riggs' were a poor family, who lived in a little shanty on a lonely side-road. There were only three children. Mary, a girl of about twelve years; Harry, a bright boy of nine, and Jack, the baby.

The children were rather shunned at school because of their poor clothes, and,

as Hallowe'en drew near, they grew disconsolate because they would have no one to go out with.

But there were a few boys and girls who were not so unkind as the others, and these put their heads together to plan a way to give the Riggs a merry Hallowe'en.

Hallowe'en was really on Sunday night, but was celebrated by most on Saturday.

Saturday night, as they were sitting around the little table, Mary, with her two cats; Jack on his father's knee, and Harry in the next room putting on his father's old clothes (he was going to try to amuse the rest), there came a loud rap at the door. Mr. Riggs answered it, and in trooped five or six grotesque figures. First came an old witch, with a cat perched on one shoulder, then a few children dressed in old clothes and wearing masks, and each carrying a grinning Jack-o'-lantern, and bringing up the rear was a boy with a donkey mask on, and ringing an old cowbell.

At first, Jack was frightened, but when he saw they did not touch him, he got over it, and was soon laughing and enjoying himself with the rest.

The Hallowe'eners danced and capered around the children, the donkey ringing his bell, the cat mewling (it didn't like this sort of game at all), while the others looked on in much merriment.

At last the children all set their lanterns down in a row along the wall, got into line, and marched solemnly out, followed by the laughing Riggs' to the gate.

In the morning, when they went to the kitchen, lo and behold, there stood a large basket full of pies, cakes, and lots of good things for this poor family. How thankful they were. "This will make up for Thanksgiving," said Mary, joyfully.

After this, the Riggs' were shunned no more at school, but treated as well as if they had been rich, and all because five or six girls and boys had been so kind on Hallowe'en.

PEARL STRANGWAYS (age 13).
Vinemount, Ont.

Dear Puck,—I thought I would write you a letter and tell you how I appreciate "The Farmer's Advocate," as it has so many interesting talks.

We have many conveniences, as the Southwestern Traction Company, or, since it changed hands, they call it the London & Lake Erie Transportation Company. These cars run in front of our lane, and only takes twenty minutes to go to St. Thomas, and forty minutes to go to London.

I go to school, and am in the Fifth class, and tried the Entrance when I was nine.

I have two pet kittens, Spot and Sport, and a dog, Towser, which is a very special friend, and he is not only good for a pet, but also for work. My dog (as I call him) will go back to the woods, which is a mile back, and bring up the cows. We have two hundred acres, and there are eighty acres in one field.

A few riddles:
1. What subject can be made light of?
Ans.—Gas.

2. A houseful and a yardfull, but you can't catch a bowlful? Ans.—Smoke.

3. Why is a horse like the letter O?
Ans.—Because gee (G) makes it go.

CURLESTA TRAVERS (class V.),
Talbotville, Ont.

Dear Puck,—I am a silent reader of the Beaver Circle. I have intended to write before, but neglected it. I like very much to read the letters in our Circle, as they are very interesting. I have read with much pleasure the "Abates." I live on a farm about a mile and a quarter from the city, where there is a very busy business city. It is the winter port of Canada, where a large business is carried on. We have very pretty parks, and also a fine Public Library. I desire country life, as there is nothing so healthful as the clear, fresh air. My father has six horses, forty head of cattle, and about fifty pigs.

From our home we have an excellent view of the Bay of Fundy, where all the winter port steamers come up the harbor, and especially the American boats. There is situated on the bay, an island called Partridge Island. I have read in

the Beaver Circle Notes, where Dean C. Cook, of Currie's, Ont., sent a riddle. In reading it over, I have agreed to send an answer of it, hoping it is right. The 'phone number is 281 = 2 (two 8 (ate) 1 (one)). I heartily hope this is right. I go to school every day. I go to the city school. The Sisters of Charity teach me, and I am very fond of them; they are lovely teachers. Well, I hope this will escape the w.-p. b., and, if it does, I shall write again, telling you more about where I live.

Thanking you for your valuable space in your paper, and wishing the Beavers every success, I am sincerely yours.
WINIFRED AGNES BARRETT (age 13),
Crouchville, Hill Grove Farm, N. B.

Dear Puck,—This is my first letter I have written to you, and hope it will escape the waste-paper basket.

I live in the Township of Lobo, about a mile from a village called Poplar Hill. In this village there are three churches, one public school, two stores, one hotel, one doctor's office, a blacksmith shop, and a place where a wheels and things like that, are made.

I go to school, and am in the Junior Fourth class. There are about thirty-six pupils in our school.

I have two brothers. Theodore is nine years old and music lessons every Saturday. We have a piano.

I like reading the letters in the Beaver Circle, especially the riddles, so I will close with one:

Which travels at the greatest rate, heat or cold? Ans.—Heat; for you can easily catch cold.

I must close this lengthy letter, so good bye.

L. MAENARD GRAY (class IV.),
Poplar Hill, Ont.



Friends Three.

Children of D. A. Taylor, Ravenswood, Ont., and their pet dog.

Our Junior Beavers.

When Mother Goes Away.

Says Bobby to Mother:
"I'll be good as I can."
"I know you will, Bobby;
You're Mother's little man."

BUT—

His mother then takes every match from the box;
The door of the pantry securely she locks;
Puts the hammer and tacks, and the scissors and ink
In the best hiding places of which she can think;
And wonders at last, as her hat she pins on,
What mischief her Bobby will do while she's gone!

Suppose.

Sometimes I think, I really think,
That fairies live in trees.
That Brownies come from Brownie-land
And ride on Bumble Bees!
Sometimes I think, I really think,
That fairy-tales are true,
I don't believe in ugly things
Like Witches, though, do you?

Dear Puck,—I think I had better write a little letter. It is about a pretty lit-

tle brown bird. Its tail is gray, and it has only one feather in its tail. We caught it at school (one of the boys caught it.) The teacher put it in a box, and then she went to her dinner. Before she went, she put it in the cupboard where the maps are. It crept into a nail box. There it got too cold and died.

ANABELLA M. MACKAY (age 8),
Thamesford, Ont.

Dear Puck,—This is my first letter to the Circle. I live in the country, two miles from a village. My father has taken "The Farmer's Advocate" for a number of years, and we all like it very much. I go to school, and am in the Second book. I like our teacher very much. I must close now, wishing the Beavers every success.

MAY COLQUETTE (age 8),
Feversham, Ont.

Dear Puck,—As I have been reading the Beaver Circle for some time, I thought I would write a letter, too. My father has taken "The Farmer's Advocate" for many years. I am seven years old. I go to school every day, and am in Part II. class. I have 1½ miles to go to school. I live in Kent County, Raleigh Township, about one mile from Lake Erie. We have two telephone lines on our road, the Bell and the South Kent. We have the South Kent in our home and like it very much. I have a nice pet dog, Collie. I have no brother, but I have two sisters; their names are Norma and Grace. I hope this letter will escape the w.-p. b.

BERNICE CLAYTON (age 7 years),
Cedar Springs, Ont.

Beaver Circle Notes.

W. R. Hopkins, Tobermory, would like some of the Beavers of his own age (11) to correspond with him.

Several letters found their way into the mouth of that old monster, the w.-p. b., because the writers forgot to mention their age and class at school. Of course, it is not so particular for the Junior Beavers to mention their class, as many of them have not started to school yet. Several letters also are still held over for want of space.

The Ingle Nook.

[Rules for correspondents in this and other Departments: (1) Kindly write on one side of paper only. (2) Always send name and address with communications. If pen-name is also given, the real name will not be published. (3) When enclosing a letter to be forwarded to anyone, place it in stamped envelope ready to be sent on. (4) Allow one month, in this department, for answers to questions to appear.]

A few weeks ago, 30,000 householders in the city of Cleveland, Ohio, urged to desperation by the high price of meat, agreed to eat no meat whatever for one month, or longer, if necessary, until the price should have become reasonable. Many of us watched the contest with interest. We saw the "strike" spread rapidly over a great portion of the United States, to Kansas City, St. Louis, Pittsburgh, Milwaukee, Omaha, and other places, and we read with some curiosity the comments of the various American papers on the situation. Some of these held that the boycott must work out well, that it was a case of "helping oneself instead of waiting for others to bring relief." A few, while recognizing good cause for rebellion, looked on the attempt as hopeless, exclaimed that the housekeeper was "up against it," and gloomily pointed out that the consumer was simply "winding from one passage of the trust labyrinth to another." Yet others argued that the only relief must be in tariff reform, a "reduction of the tariff all round to some really sensible basis."

It is too soon yet to foretell what the result of the strike must be, not concerning the consumption of meat particularly, but in following out the general spirit of resistance that such a rebellion must have crystallized,—all such demonstrations do much toward giving people a vivid realization of just "where

they are at." It is safe to say that the fight against unduly high prices will be waged with more spirit from this on, but the wires and manipulations that control such matters are many and mysterious, passing the ken of folk who have no opportunity of examining the closely-boxed machinery of the Trusts. There can be no fair and open fight, and it would seem that reform, to be at all speedy, must begin at the top, among the men who hold the authority and the wires in their hands. The people, it is true, may elect the man who promises to be the savior, to Congress, or to the Presidency. The question is, will he fulfill expectations? Even so, can even Government cope with the Trusts in the United States? Of late, it appears that a Meat Trust actually exists, but that since none of its regulations have been committed to paper, it is absolutely above the law. It is intangible; dependent merely upon unwritten agreement.

To return, however, to more domestic things, it probably occurred to some of us to wonder, while the strike was on, whether the butchers were the most worried people in the cities where the boycott was afoot, and whether the vegetarians were not chuckling in their sleeve. The question was likely to come up, too, as to whether a great number of housekeepers, deprived of meat, with its muscle-building protein, knew what to give their families to supply its place. Eggs, at fifty cents a dozen (as they were at that time in most of the larger cities), were, no doubt, conspicuous by their absence on most middle-class tables. Then what did the housekeepers do? Did they know enough about foods to make substitutes equal to the demands of the human body?—Or did they lower both the working capacity and the power to resist disease of their families by serving eatables lacking in nutriment?

It is not likely that a meat strike or a meat famine shall come upon Canada, yet the subject of substitutes in such a case is a very good one to understand. Once in a while, in almost every rural district, it is inconvenient to have fresh meat; and then there are always the people who "do not like meat" to be considered.

It is always to be remembered that a mixture of foods—the protein foods to make muscle and repair tissue, the carbohydrates to supply heat and energy (also to help in the building process), the fats for heat and the mineral substances for medicinal purposes, is necessary if health is to be maintained.

Among the best substances for meat, to supply proteid, are milk, cheese, nuts, beans, peas, oatmeal, cornmeal.

Foods rich in carbohydrates (starches) are bread, potatoes, rice, pearl barley, tapioca, bananas.

Now, think of the combinations: Potatoes grated, seasoned, mixed with milk and mashed cheese, and baked, form a dish not only palatable, but very nutritious. In order to have potatoes at their best, however, they should be steamed, boiled in their jackets, or baked. Boiling in water takes away much from their nutritive value.

Macaroni, boiled until tender, then covered with milk and baked with grated cheese, is also a very valuable food. Oatmeal and cornmeal are the most nutritious of all the cereals, but in order that they may be digestible, should be boiled a long time, and simply reheated for breakfast. Four or five hours in a double boiler is none too long a time for porridge. These cereals contain, not only proteid and carbohydrate matter, but also fat.

Butter supplies the necessary fat to bread, but proteid is still lacking. This may be supplied by eating cheese, or a milk soup, macaroni and cheese, etc., with the bread. Dr. Robert Hutchinson recommends the using of skim milk instead of water when making bread, as adding greatly to its nutritiousness.

Bananas contain both proteid and carbohydrates. Their use as a constituent of custard puddings is to be recommended. Baking makes them more digestible, and they are often served thus with sugar, itself a valuable heat and energy producer. Puddings made with milk (and eggs, if they can be procured), are very nutritious.

As a rule, vegetables are rich in carbohydrates, and poor in proteids. Beans and peas, however, are a marked excep-

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tion to this, and so rich are they in protein, that beans in particular have been called the "poor man's beef." They may be baked, or made into a thick soup. To make the latter, boil them, adding a little soda, until soft; put them through a sieve or ricer, season, thicken slightly with flour, and serve with bits of buttered bread toasted in the oven, as a hot dish for tea. Dr. Hutchinson recommends adding hot milk to such soup, and lessening the quantity of water. As may be judged, beans should seldom be served with meat, except to men who are working hard in the open air. Lumbermen do not seem to find them too "strong," but other people are likely to.

Among other vegetables, beets (especially if baked, to retain the sugar), and Jerusalem artichokes, are among the most nourishing. Others must depend, more or less, on milk sauces, addition of butter, etc., for nutritive value, but they usually contain salts and minerals of more or less importance. Spanish onions may be classed among those that are really "foods."

Fruits of all kinds are useful aids to digestion, while dried fruits, jams, etc., are quite nutritious. The addition of dried fruits or jams, and nuts, to puddings, increases the nutritive qualities. The now popular nut-bread is not only delicious, but also valuable from a food standpoint.

As regards beverages, we quote, again, Dr. Hutchinson: Tea, coffee and cocoa are of little real use, although the last named may be made to enter the list of important foods, if prepared with milk. "The influence of these beverages on digestion is, on the whole, unfavorable. Tea and coffee should both be avoided as an accompaniment to meals which make large demands on the peptic powers of the stomach, such, for example, as meals containing much meat. . . . If tea is taken at all, a good China variety should be selected; it should be infused for as short a time as possible, and should be taken with milk. Second cups should be eschewed."

A Variety of Topics.

Dear Dame Durden,—Although the Nook seems to have so many members, and so many letters are "unavoidably held over," I felt I should like to write, and thank you, dear Dame, for your bright and helpful talks, and Helponabit's inspiring letters. How I do enjoy them, and all the others. I, like Helponabit, looked for the Nook in the Christmas Number, and was likewise disappointed. Why is it so often crowded out?

I wonder how many have followed your directions for stenciling. I have done two pairs of curtains, for living-room windows. They were just ordinary-sized windows, and on the one I extended the curtains, and valance, about six inches on each side. It leaves more space to see out, and gives it the appearance of a large window.

How I do enjoy making things for our home.

Has anyone tried pyrography? I intend getting an outfit, and would like so much to get a few pointers. I am a farmer's wife, but I try to plan my work systematically, and always find time to do some fancywork, and read everything I can that is worth reading. We take four magazines, besides the newspapers, and, by exchanging with others, we have several more.

Now, dear Dame, it is rather early for questions about vines, but I like to plan in winter, just what I shall get, and where plant things in spring. I have been here just a couple of years, and each year I have planted several vines and shrubs, and I intend doing so again, but our house faces the north and west, and I find the wind is very hard on vines and flowers on these sides of the house.

Would a white clematis do well in north, by a veranda. I have a red one there, just planted last spring, and it seemed to do very well, but the flowers are small, and some of the petals were green. They have always been like that, as I had it in the south before I came here.

Last year, about the time those horrid big worms appeared on tomato vines, they came on the Virginia creeper we have on west veranda, and, oh! they annoyed me so much! What can I do to get rid of them? I do not like to cut the vine down, as it did so well, and it is just two years old.

Yet another question. Would a white net over silk dress (separate) dye black nicely, or would the net look "cottonic"?

Here is an excellent recipe for nut bread, which makes fine sandwiches for lunches for parties or picnics.

Nut Bread.—4 level cups flour, 4 teaspoons baking powder, 1 teaspoon salt, 1 cup granulated sugar, $\frac{1}{2}$ cup chopped walnuts. Mix dry ingredients, add $1\frac{1}{2}$ cups sweet milk, and 1 egg beaten light, and stirred in. Put to rise on back of range for 20 minutes. Bake in moderate oven fifty minutes.

Hope I have not troubled you too much, being only a newcomer.

GRATEFUL.

Creemore, Ont.

Is the tomato-worm to which you refer the species that bores into the tomatoes during the early part of the season? If so, I may quote you from Smith's "Entomology": "On tomatoes, they cannot be satisfactorily treated except by picking and destroying the infested fruit as soon as noticed, and the only practical means of keeping them in check is fall plowing in all corn-fields (in which they love to con-

in the burning process. The majority of people buy the stamped articles, all ready for burning, but a few very original and artistic souls save money and get more satisfaction out of the work by drawing their own designs. A very soft, white wood (e. g., basswood), should be used, and the design simply drawn on with a lead pencil. Any carpenter or cabinet-maker can fashion the articles,—of course, prior to the burning.

Now, as to your vines.—Mrs. Ely, in her book, "A Woman's Hardy Garden," speaks of the Clematis paniculata as being "absolutely hardy, so probably it will do for your north veranda very well. The flowers are small, but grow in clusters of little white stars, and are very attractive. Professor Hutt, in his pamphlet on "The Mixed Flower Border," especially recommends this vine, also the Japan Honeysuckle, in a list of vines especially suited to Canada. Annual climbers, which might be planted while waiting for these perennials to grow, are Japanese Variegated Hop, Cobea scandens, morning glory, climbing nasturtiums, and sweet peas. The peas,

and one pair of long ones for a living-room, the long ones to be for a French window. The walls and linoleum are of the different shades of green and brown. If my curtains are gaudy, I will feel that I have failed in my experiment, so please tell me what you would do, as to color. I intend to use some kind of dye.

Thanking you in advance for the help I am sure is coming.

NOVICE.

What a responsibility you throw on me, Novice! My taste might not be yours at all—think you not? I believe I should have coffee-colored curtains, with a three- or four-inch border in brown, or else cream curtains, with a border in olive green—perhaps a conventionalized fern or trefoil design. An artist friend of mine tells of having been entertained at the home of the Danish sculptor, Mr. Haag, last summer. Mrs. Haag showed her some cheesecloth curtains colored with strong coffee, and inset with coarse insertion along the border. Reaching only to the sill, and with a valance along the top, they were both effective and artistic. . . . When a window is draped thus, the side curtains should be drawn well back over the wall, in order to leave as much window as possible exposed. It is no longer considered beautiful to veil and shroud a window until it is "without form and void" so far as its original purpose is concerned.

By the way, your recipe for oatmeal cakes, and those sent by a few others, have been held over for a later season, as so many have already been given.

Buckwheat Cakes.

Dear Dame Durden,—I read with a great deal of interest the essays on the girls' managing the farm. I think that numbers one and two deserved the prizes for what they accomplished, but if I were left in a similar state, I would prefer number three's method.

I would not advise girls to take up farming as a profession unless they always intend to remain single. . . . Because, after mastering farm work, and working out-of-doors so much, they would not like to be confined to housework. If they should marry, and find some day that there was sewing, cooking, etc., to do, and a cross baby to mind besides, they would be apt to say, "Oh! that I could go out to the field and work where I could accomplish something." And, besides, I doubt if any husband could exactly suit them in the way of doing farm work.

I was greatly pleased to see Lankshire Lass's letter again, also Helponabit's and Forget-me-not's, too. So, Forget-me-not has a new baby! Please kiss "it" for me, as I love babies. I agree with Helponabit that we all should contribute, and not have the Ingle Nook absent some weeks from "The Farmer's Advocate."

And, now, dear Dame and Chatterers, will someone please send a recipe for buckwheat pancakes other than those made to rise with hop yeast? And would some of you scientific cooks tell us if buckwheat cakes are wholesome, or ought we to leave them out of the bill-of-fare?

Wishing you all every success.

CONTENTED ONE.

Kent Co., Ont.

This, as a bit of a reply to your personal note: I should have been pleased to meet you during the Fair. Do not hesitate about coming up next time.

Now, about the pancakes. So far as I can find out, buckwheat cakes are quite nourishing, but likely to be a little heating to the blood during hot weather, occasionally causing a slight eruption like prickly heat. A few people cannot eat them at all, but, as a rule, they are quite worthy of a place on the bill-of-fare.

Oatmeal Cakes.

Dear Dame Durden,—I have never written to your department before, but have always read what the Ingle Nookers had to say, so I saw that a recipe was asked for oatmeal drop cakes. This is one I have known that was tried: 1 tablespoon butter, 1 cup sugar, 2 cups rolled oats, 2 eggs, 2 tablespoons baking powder, 1 teaspoon vanilla, pinch of salt. Drop on buttered pan. R. I. W. Ontario Co., Ont.



Clematis Paniculata.

A most attractive vine for porch or veranda.

gregate.—Ed.). It has been found . . . that plowing in the fall, and breaking up the earthen cells in which the pupae rest, will, in almost every instance, result in their death, and this process alone offers a fair opportunity for controlling the pest." Could you describe the worm?

I have been wishing that you had told us a little more about your stenciling,—what pattern you used, whether you designed it yourself, all the little items interesting to prospective stencillers, you know. I saw a pair of very dainty bedroom curtains at Macdonald Residence, Guelph, not long ago. They were serim, with a border stencilled with blue; a mixture of "permanent blue" and white, with turpentine to thin, was used.

You will find the pyrography quite easy, although, of course, your own originality must be depended upon to a great extent for originality of marking

in suitable soil, will grow to a height of six or seven feet.

I have just telephoned a Dye Works in regard to your net. I am told that cotton net will not dye at all well. Better have the dress cleaned and keep it white.

Many thanks for the nut-bread recipe. I have eaten it (the bread, not the recipe), several times of late, and think it quite the nicest thing yet. Any I have seen was simply buttered, not made into sandwich. Would you use any filling for the latter?

More About Curtains.

Dear Dame Durden,—From time to time you have been giving us useful information on stenciling. I find that patterns are comparatively easy to secure, but would like some advice about coloring. I wish to stencil two pair of short cur-

Some Suggestions.

Dear Dame Durden and Nookers, All,—May I step in for a few minutes' chat, and offer a suggestion or two?

I do not know whether others have the same trouble that I do or not, but in looking over old "Advocates," I frequently find recipes that I would like to try. When baking day comes, that particular recipe cannot be found, and, as it would be an unpardonable crime to cut one of the "Advocates," I usually have to do without my recipe.

Now, I would suggest that each interested reader contribute a number of her most-tried and tested recipes, that we have it published in book form, namely, an "Ingle Nook Recipe Book."

All in favor, manifest it in the usual way.

Now, about those lunch-baskets.

Why not give your little lady a fresh egg, and let her cook it at school herself, providing there is a stove in the schoolroom, of course.

An egg-cup filled with butter, and a couple of slices of unbuttered bread, a spoon, dish of fruit, a piece of pie, and a paper of salt and pepper. A few coals raked out to the front of the stove, a pointed stick, and we have toast.

What could make a better lunch on a cold day?

A soda or tea-cannister will hold several eggs, and will be well filled the second day.

This helps pass the noon hour for the girls, and the fun of cooking picnic-fashion helps wonderfully to make their dinner taste better.

Boys usually like custard. Try cooking one in a cup, using one egg. Send the cup along, and there is no spilled fruit to get mixed up with the bread.

Hang a shelf from the ceiling of your cellar, within easy reach of the steps, if you are unfortunate enough to have a trapdoor. This saves many steps, and is also rat and mice proof.

After sweeping carpets, wipe with a mop, wrung out of clean water, to take up the dust. A little ammonia brightens them.

Try baking your cookies, biscuits, etc., on the bottom of the pan, as you can slip a knife under them so easily to loosen. May I come again?

DOLLIE DIMPLE.

Certainly, come again, Dollie.

A Matter of Dress.

Dear Dame Durden,—May I ask if it is correct, or good taste, for elderly ladies of sixty and over to wear white? I always enjoy the Ingle Nook, and wish it every success. Yours sincerely,

Brome Co., P. Q. LENA.

Most certainly, ladies of sixty and over may wear white, if it is becoming. White, pearl gray, and lavender or light heliotrope, are all worn by elderly ladies.

Some Sunbonnet Sense.

Hello Everybody! Is there a little corner near the grate for another girl? I have been enjoying the chatting so long that I feel as though I ought to do my share, as I do not believe in the "all-take, no-give" system. I know what I have to give will be very uninteresting in comparison to what we hear from the other members, but I will do my "little best!"

I extend my sincerest welcome to our new honorary member, Forget-me-not's baby! Such wee little bundles of sweetness; how we all love them! Please bring the baby often to the Nook, Forget-me-not!

Like Helponabit, I searched through and through the Christmas Number for a delightful talk, such as only our dear Dame knows how to give, and was so disappointed when I couldn't find a single word from her. I suppose the men folk would feel very much neglected if one of their special columns was sometimes left out to give room for the Nook? They seem to have so much written for their benefit, I wonder if they couldn't do without a little when we are crowded for space.

I thought Helponabit's suggestion as to the members taking turns in giving talks was splendid. The topics she mentioned could be the basis of some very interesting letters—"a trip, a visit, or some interesting subject of one's experience."

Not so very long ago I took a little trip, and, while waiting to make connec-

tions in one of our large stations, I had an opportunity to indulge in one of my favorite pastimes—studying the faces of those around me; and the fact which impressed me most was the cheapness of some Canadian girls. I do not wonder now at the expression the boys use in speaking of girls of whom they do not approve. "Hu, you could buy that girl at the fifteen-cent store!" We were sitting near the train-information office, and I had been watching with interest the deftness with which the young man in attendance managed the two 'phones which insisted on being answered almost at the same time, when one of the waitresses, immaculate in black dress and white apron, cuffs and collar, came up and entered into conversation with him. Then a series of loving glances took place, which would do credit to a newly-engaged couple, and then, by way of climax, he reached across the counter, placed his arms around her, and kissed her. Her resistance was very feeble indeed, and, after treating him to a few more tender glances, she serenely marched away, apparently unconscious of the many eyes fixed upon her in wonder, amusement, or disgust.

On the bench across from us sat a young woman very neatly attired in a tailor-made suit of brown. Her hat was also of brown, with a feather mount which might have been a turkey, as it was the same shape and color. Her crossed knees showed to perfection two beautifully-shod feet, which she seemed desirous of showing. She seemed very restless, and soon walked over to our hero of the telephone, and, leaning on the counter, gave him an opportunity of looking into the depths of her eyes. This continued until another young fellow came to relieve him, when he and the young lady walked back to her seat and gave free lessons in flirtation to any who might care to pay attention. The little bellboys who skip around so quickly, winked and giggled whenever they passed, and, evidently, thought it funny, but I considered it disgusting in the extreme. I heard a man who has grown-up daughters at home, say that he winked at this girl just to see what she would do, and she was game. Now, what kind of fair daughters of Canada do these bad examples represent? I am sure a stranger in our country would not have a very good opinion of our girls if he saw these. Some girls seem to think that the boys like this sort of thing, but that is just where they are mistaken. If they could only hear what the boys have to say about it, they would be very much shocked, I imagine.

Where does the fault lie? I have been wondering if it is not with the parents, who do not train the children properly, but perhaps I am wrong. Would someone else please give their opinion?

I am afraid my talk has spun out to an unpardonable length, and that you will think I am like the brook, which "goes on forever," so I must say goodbye.

SUNBONNET SUE.

Oxford County.

Am sorry you were disappointed over that Christmas Number omission; but I thought it might be nice to have a complete change for once—and then, you know, you had to put up with my long serenade about the big greenhouses. . . . Yes, we all want "more room." Perhaps we shall be able to contrive a plan to that end some fine day before long.

Now, about Helponabit's suggestion—how would this do? When any of you have a subject on which you would like to write, let me know about it; I can then keep all the subjects in a book, and give a month's notice to each contributor before I wish her article to appear. That would prevent the possibility of dozens of papers coming in at once, with the unavoidable long, long wait before some could be published. Is this feasible? If so, send your subjects along.

Come again, Sunbonnet Sue. You have a good sensible head on your shoulders,—and only seventeen?—Now, I haven't "tatted," have I?

An Oat-cake Recipe.

Dear Dame Durden,—I saw in the issue of January 13th, where "An Ingle Nook Reader" asked for the recipe of oatmeal cakes, and I am sending my recipe.

Oatmeal Cakes.—2 eggs, 1 large cup sugar, 1 cup shortening, 1 cup sour milk,

1/2 teaspoon of soda, 1/2 teaspoon of cinnamon, 2 cups oatmeal, 2 cups flour, 1/2 cup chopped raisins, 1 cup chopped walnuts. Drop from the spoon, and bake in a moderate oven. These cookies keep excellently.

A READER.

Muskoka, Ont.

Recipes.

Klondike Soup (nice for tea during cold weather).—1 quart sweet milk, 1/2 can corn, salt and pepper to taste, butter size of an egg, 1 cup cold boiled potatoes mashed. Boil up once, pour over bits of toasted bread, and serve.

Pot Roast.—Wipe the meat with a damp cloth and put into an iron pot with a little hot fat or butter. Place over a moderate heat, and brown the meat slowly, turning it frequently; this will take about twenty minutes. When the roast is well browned, season with salt and pepper, put in 1/2 pint boiling water, cover closely, and set the pot back where the meat will cook slowly. As the water steams away, add a little more, half a cup at a time. Allow 25 or more minutes, depending on the toughness of the meat, for each pound. Take up the meat, pour a little water into the pot, thicken the gravy, and serve. A very tough piece of meat may be made quite tender if cooked this way very slowly, about 1/2 hour per lb. being allowed.

Yorkshire Pudding.—1 pint milk, 2 eggs, 1 teaspoon salt, 5 tablespoons flour. Make a batter of the milk, salt, and flour. Beat the eggs separately and add, stirring well, then pour into a shallow, well-greased tin. Bake 1/2 hour in a hot oven, then place the pudding under the roast of meat to catch the gravy that drips from it. Serve with the beef. (Roast in this case must be cooked in oven as is ordinarily done.)

Mustard.—Mix four spoonfuls dry mustard, 1/2 teaspoon sugar, pinch salt, and 1 tablespoon melted butter. Finally mix well with boiling vinegar.

Boston Beans.—Place 1 quart beans over the fire, cover with cold water, and slowly bring to a boil, then set where the water will bubble, but not boil hard. When they have cooked thus for 15 minutes, add a 4-inch square of salt pork, and simmer until the beans can be pierced with a pin. Drain the beans, then turn them into the bean pot again. Mix 2 tablespoons molasses, 1 teaspoon salt, 1/2 teaspoon pepper, and about half a cup of the water drained off the beans. Turn this mixture over the beans, and stir well; cut the pork in small squares and add, putting in enough of the bean water, if necessary, to cover. Bake two hours or more.

Rusks.—In two cups of bread dough, which has been raised overnight, mix well 1/2 cup soft butter, 2 tablespoons sugar, and 1 egg, adding a little flour. Let the dough rise until very light, roll it out, cut into biscuits and put in the pans. Have the biscuits raised again, and bake in a moderate oven to have the rusks fresh for tea.

Note to "Margaret."

If "Margaret," who asked questions re housebuilding, will send her name and address, I will send her some pictures that may help her. Will correspondents please remember that it is against rules to answer questions for anyone who does not enclose full address.

Set in Her Way.

(In the City.)

Sweet Mary Jane sat fourteen days, and wouldn't deign to rise, Although her folks tried every way to make her realize That it was quite unladylike to sit all day and night, And never change her attitude or rouse her appetite. They coaxed and teased and threatened her, and still she would not stand, And when they tried to raise her up, she bit them on the hand. They didn't want to do her harm, or call in the police, And yet they sorrowed at the thought of Mary Jane's decease. But Mary Jane knew what was best, she wiser was than men. She sat until she'd had her set, for Mary Jane was a hen.

—St. Louis Republic.

The Roundabout Club

The Farmer as a Power in Government.

SECOND-PRIZE ESSAY.

The relative greatness of a nation is determined, and to a great extent dependent upon, the physical features and natural resources of a country. It is scarcely necessary to dwell on this fact or its applicability to our own fair Dominion. Canada, her wealth springing from great and varied sources, is, on the whole, mainly agricultural, for the basis of a nation's financial security, also of its political safety, is agriculture.

Thus essentially an agricultural country—glorying in fertile plains, rich valleys and abundant water facilities—is practically a nation of farmers. For what occupation or pursuit does not grow out of, or is not dependent, to a certain extent, upon that oldest and most honorable of occupations—the cultivation of the soil?

Then after ascertaining the fact that the farmer is the greatest creator of Canadian commerce, that on his side are wealth, numbers and intelligence, we naturally conclude that, by our form of representative government, he must wield considerable power in legislative matters.

But is this a correct conclusion? Let us consider the farmer's present standing in affairs of Government. Is he as a class represented in Parliament in proportion to the professional or commercial classes? We must reply in the negative, for out of one hundred and six members of the Legislative Assembly of Ontario there are but eighteen actual farmers; and this is a much better percentage than his standing in the House of Commons, where twenty-five members out of two hundred and twenty-one classify themselves as farmers, or in the Senate, which consists of eighty-seven members, farmers numbering eight.

The farmer does not voice his interests in the legislative halls as he ought, or demand the consideration which he deserves, for as a class he is a heavy burden-bearer—a heavy contributor to the revenue, by both direct and indirect taxation. And of late years changing conditions seem to demand that he purchase more extensively of "things bought in town," consequently the greater the indirect tax.

Yet only the farmer is to blame that his interests are not better guarded by the Government. Had he been better represented in Parliament at the time of the introduction of the National Policy by Sir John A. Macdonald, he would not have been compelled to accept without considerable resistance its conditions, and pay the high duty on his machinery. Under our present Government this duty has certainly been lowered. Our Canadian manufacturers are protected, and justly so, yet does it not seem somewhat in opposition to the farmer's best interests, to compel him to pay the high prices for necessary machinery? But these matters of state are not easily adjusted.

We may well ask: Why is the farmer not better represented in Parliament? Does he not possess the key to this door of opportunity? Certainly, he possesses the votes, but—sad to relate—the farmer as a faction always split on the rock of party issue. He ruthlessly tramples on his interests as a body to fruitlessly vaunt his individual right to vote Reform or Conservative. He will not work unitedly to elect to Parliament a farmer, a man who has at heart, the agricultural interests, and whose aim is to further those interests. Too frequently the farmer is represented by the professional man, clever and capable, but possibly more impressed with the dignity and honor of his political enterprise than with his responsibility and indebtedness toward the class of people who elected him.

Yet the Canadian farmer is fortunate in a few staunch advocates, men of sound judgment and rare excellence, such as Jas. W. Robertson, who has accomplished and is still effecting so much good in agricultural interests; or the Hon. Sydney Fisher, who has befriended the farmer by accomplishing so much in the cold-storage system of shipment. Yet others might be mentioned, including Hon. John Dryden, Hon. Nelson Monteith, and Hon.

of a nation is great extent of the country. It is well on this fact our own fair Do-wealth springing sources, is, on the al, for the basis security, also of agriculture, agricultural coun-plaints, rich val-ater facilities—is rners. For what es not grow out to a certain ex-and most honor-cultivation of

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Jas. Duff, our present Minister of Agriculture for Ontario.

Turning from his present standing, let us consider the power that the farmer might exercise, granted fuller development.

Primarily, he would prove the truth of the compliment, "that he is the backbone of the country," by demanding the consideration due him as a class—a class which not only feeds the nation, but which seeds the bulk of the goods that will pay the nation's bills abroad. He will not only claim equal treatment with the other classes, into which various occupations and interests divide the population, but elect men to Parliament who will steadfastly uphold those claims; men who are in actual experience farmers, educated, fair-minded, earnest men, with the interests of the farmers at heart.

When the farmer realizes that "union is strength," and will sacrifice party politics on the altar of a common interest and common welfare, he will prove a power in Government indeed. We would not seem to disparage the British two-party system. What means so successful of carrying on Representative Government with security and continuity, possessing as it does the enormous advantage of reducing complicated questions to a simple issue of aye and nay before the public! In our telephone system, for instance, where in rural districts the Bell company gives the service, should not the farmers co-operate to form their own company and make their own terms, instead of being under obligation to outsiders? The rural telephone company, controlled by the farmers, is certainly an advance toward assertion of power. The free rural-mail delivery might be cited as yet another advance, one which as yet only a portion of the settled country has benefited by.

It is scarcely possible to actually estimate the power which the farmer might exercise in matters of state. But in this, an agricultural country, where the farmer as a class is certainly the most important factor, he is bound sooner or later to realize his strength and to concentrate it for the advancement of his own and his country's interests.

Under the concluding point—how in order to attain power may he best be developed—generally speaking, it will be by education. This is the very foundation stone, but it must be cemented in those sterling qualities of high principle, honesty and fairmindedness. A good education is imperative for the farmer, both in the public and, if possible, in the agricultural school, for the successful farmer understands agriculture both in theory and practice. In a recent article, Mr. J. J. Hill remarks: "Those who follow this noble calling of farming should be taught to honor their occupation, and make that occupation worthy of honor." He would build a couple of warships less and start agricultural schools. Side by side with common schools they would work for intelligence, for progress, for the welfare of the country, in a moral as well as a material aspect.

Education will develop the farmer in yet one other particular. Out of the grooves of narrow egotism—which glories in voting Reform or Conservative—which ever it may be—simply because his father and grandfather before him upheld the same principle, with never a serious thought to the moral fitness of the man nominated for a position of trust and honor—the farmer and voter will rise with a higher ideal of duty toward his fellow men and his country. Broad and thoughtful reading, a knowledge of political economy, will assist the farmer to judge calmly, dispassionately, and with full knowledge for himself of questions, and vote accordingly.

The ability to speak well on the platform can be acquired by dint of faithful practice. Confidence in oneself is a gift to be earnestly courted by many. Clearness of speech, lucidity of thought, good expression—these may be taught the youth by debates or speeches in our rural clubs or literary societies. Some of our foremost politicians and capable speakers made just such a beginning in the little country schoolhouse of a backwoods settlement.

Another influence for development might come under this heading. It is the doing away with the isolation of many farmhouses by the introduction of the telephone, which also has the advantage of connecting distant communities and creat-

ing a friendliness among people who otherwise, possibly, would not come in helpful contact with one another.

The very highway of power attainment leads for the farmer through organized associations. I quote a clipping from the Herald, of January 5th: "The Grangers and Grain-growers' Association met recently in Toronto, and the outcome of their joint deliberations was the decision to form a National Council of Agriculture; the object of which will be to study political issues and questions which affect the welfare of those who produce the nation's wealth, and to advise the farmers generally as to what measures they should support to bring about better conditions."

And shall not the farming class of Canada give its heartiest support to movements such as these? For to promote agriculture is to promote the origin of wealth and of sanity, of pure blood and clear brain, of energy and of right living.

"HONOR BRIGHT."

Halton Co., Ont.

PRIZE ESSAY.

The farmer is universally acknowledged as the benefactor of mankind, but "fine words butter no parsnips"; in other words, praise is useless when nothing more substantial goes with it. The farmer has to look out for himself and his own interests. He must have some voice in framing the laws which govern him in his affairs, or he becomes a nonentity in the great striving, pushing, hurrying world.

As things are at the present time, what influence has he? Let us begin right at home.

In municipal affairs he has everything in his own hands. He makes and repairs his roads and bridges, getting aid oftentimes from the Government by virtue of his position. He provides for the education of his children, and looks after matters pertaining to the safety and comfort of the public within his small sphere of action.

We pride ourselves on our representative government. Candidates for Provincial or Dominion Parliament seek for the farmer's support. Public meetings are held in rural districts, and the country is well canvassed. The farmer is a power to be reckoned with if their election be assured. Once the candidate is elected, does the farmer get his needs supplied?

In a measure, yes. The farmer's vote put the candidate in power, and it can also defeat him. But as a general thing only a sop is thrown to the farmer.

Very few members of Parliament are farmers, consequently they don't understand the needs of the country. Lawyers, doctors, journalists and professional men occupy the seats and frame their country's laws. Are they true representatives! So long as party is considered before principle, just so long will our representatives be lacking in principle, and false to their trust.

Education is well looked after, but the farmer hasn't much voice in the matter, except in hiring teachers. The salary was even fixed for a time, without his consent, and he is instructed as to what sort of school he must build, and is given no option in the matter.

In the laws regarding the public highway he has a certain measure of power, but he cannot regulate the traffic on this same highway. In certain sections of Ontario the automobile is regarded as a nuisance, but with all his efforts he has not yet got satisfactory legislation regarding the matter.

In the matter of assessment he seems to be powerless. He pays for every improvement in increased taxes, while the speculator's land adjoining is equally benefited by his labor, though the assessed value remains the same.

In our home district, here in Northern Ontario, the farmer is greatly hampered by the miner and the lumberman. The Government pretends to be anxious to induce settlers to open up the country, but first allows the lumberman to strip their lands clear of all pine. The holding of these limits for an indefinite period makes the matter seem a gigantic hoax. Whole sections are kept out of the market from land-seekers, and squatters are closely watched and suffer many indignities at the hands of unscrupulous limit-owners and their satellites.

If minerals of any value be found, the farmer must turn miner, take out license,

stake claims, and pay fees—just as a stranger must do—for the right to touch what lies on his own property.

Game laws are very necessary, but the settler must pay as dear for the privilege of getting his venison as the man hundreds of miles away. Small wonder if he breaks the law and shoots when he gets a chance, and when to his advantage.

These are only a very few points out of hundreds to show that the farmer's hand is not seen as it should be in the laws of his country.

Now for the remedy.

Shall Parliament consist of more farmers? It most certainly should; but, taking the average farmer as a sample, is he fitted to occupy that position? We think not. Let me quote from Ruskin's lecture on "Work."

"And here we have at last an inevitable distinction. There must be work done by the arms or none of us could live. There must be work done by the brains, or the life we get would not be worth having. And the same men cannot do both. There is rough work to be done, and rough men must do it; there is gentle work to be done, and gentlemen must do it; and it is physically impossible that one class should do, or divide, the work of the other." And, further, "Rough work, honorable or not, takes the life out of us."

Here is a poser! Just so long as farming is done only by main brute strength it is rough work and fit only for rough men. Why not make it a science and brain work fit only for gentlemen! The farmer must strive to raise himself intellectually. Let him learn by diligent study in a few months what many years of hard experience will teach him; and let him be ever open to receive modern methods that have been well tested, rather than stick to the old way.

Physically he is well developed, but the hard labor involved in farming haphazard and the struggle to accumulate wealth is at the expense of mental growth.

Let him give his boy the very best education, not just that dangerous "little," but a generous, broad education, fitting him to rank well among city-bred youths. Surround him with the best papers, magazines and books. Push him, urge him, and all young bright men to become accustomed to express original opinions logically and fearlessly in public, and the question is solved for the near brighter future. Such a man, fitted to manage his own affairs wisely and well may safely be entrusted to look after the affairs of many.

Farmers should legislate for farmers, and they most surely will when once they come into their own. AGNES HUNT.

Algoma Dist., Ont. [Contrast Ruskin's idea of physical labor with Tolstol's. That of the latter is surely the more rational. Will not someone take up the cudgels in behalf of it?—Ed.]

With the Flowers.

Grubs in Soil.

Could you, through the columns of your valuable paper, tell me what to do for a pest, in the form of small white worms, in the earth of my house-plants? There are also some small black flies on them. Do these cause the worms? SUBSCRIBER.

Wellington Co., Ont.

A stagnant or sour condition of the soil is probably the cause of the small white worms (or grubs) in the soil. Imperfect drainage is also often a cause for their appearance. Would advise repotting the plants into fresh potting soil, removing as much of the old soil as possible without injuring the roots of the plants. One part sand, six parts loamy soil, one part dry cow manure would make a good potting soil for almost any kind of plants. Put some broken pieces of flowerpot, coarse gravel or lump charcoal in the bottom of the pot for drainage.

The small black flies on the plant are probably black aphids. Brush the flies off with a small, soft brush, dipped in a strong solution of tobacco water or strong soapuds, or even clear water. If the insects are black aphids, they would

not be the cause of grubs or worms in the soil.

Would like to have seen specimens of worms and flies, so as to have been more sure of suitable remedies.

O. A. C., Guelph. W. HUNT.

Current Events.

The famous Moroccan bandit, Raisuli, is dead.

A huge military airship has been launched for use in the British army.

Madame Curie, Paris, has discovered a new element, polonium, which is regarded as superior to radium.

The Delaware, the first United States Dreadnought, was formally delivered to the Government last week.

The Georgian Bay Canal scheme met with very general favor during the discussion on it recently in the House at Ottawa.

Mr. Winston Churchill has been made British Home Secretary, and Mr. Sydney Buxton becomes President of the Board of Trade.

Herbert John Gladstone, son of the former Premier of England, who has been appointed as Governor-General of British South Africa, has been raised to the Peerage.

The Mendelssohn Choir, Toronto, which has been raised to a high point of efficiency by Dr. Vogt, has been making another tour of triumph through United States cities.

Two lives were lost in Stettler, Alta., last week through the drinking of wood alcohol. This spirit, since men will drink it, should either have its name changed, or be labelled "Poison."

A deputation from the Academy of Medicine waited on Premier Whitney and the members of the Cabinet last week, with a request that a Pasteur Institute for the treatment of rabies be established in Toronto.

An effort will be made in the Legislature to provide for hotel accommodation in local-option districts partly at public expense. A bill by Mr. Grigg, of Algoma, will empower any local-option municipality to give a bonus to the extent of \$300 to one hotel only, the bonus, with the Provincial license, to be forfeited for a violation of the liquor law.

Altruism.

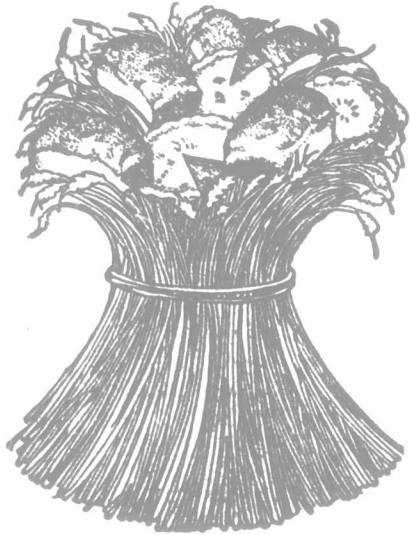
When cream is ninety cents a quart, And new-laid eggs are soaring, And butter—the milder sort—Necessitates ignoring, We say, askance, "Just think of that!" And eat our bread with bacon fat.

But when our neighbors come to dine We don't consider prices, But give them courses, eight or nine, From oysters up to ices. You'd never dream the purse was limp Or how we have to save and skimp.

For then we buy us cream galore And mushrooms out of season, And fatted birds—though prices soar Beyond all rhyme or reason; Champagne and festive fizz abound, And hired waiters gallop 'round.

'Tis thus that we exemplify The love we bear our brother, And cheerfully ourselves deny That we may feed each other, Obeying both the Golden Rule, And modern altruistic school.

—Helen A. Saxton, in The Smart Set.



YOU cannot buy flour as fine, white, pure and nutritious as Royal Household under any other name.

There is no other flour in Canada upon which half so much money is spent to insure perfect purity—just think for a moment what that means to the health of your household.

Royal Household Flour



is the best—most wholesome—most carefully milled flour to be had in this country. The Ogilvie name and trademark are on every barrel and sack—a guarantee from the maker to the consumer. Tell your grocer you *must* have Royal Household.

Ogilvie Flour Mills Co., Limited, Montreal.

Duchess

Night Gowns 50c. to \$7.50

In fine cotton, nainsook and bar check muslins—with long, short or $\frac{3}{4}$ sleeves—button front or slip-over—high or low necks—trimmed with lace or embroidery—and made large in every particular.

Ask your dealer for "Duchess" Night Gowns if you want daintiness, comfort and wear. Every garment guaranteed.

Write us if you can't obtain "Duchess" White Goods, Waists etc. in your city.

DUNLAP MANUFACTURING CO., Montreal.



Snow.

White are the far-off plains, and white
The fading forests grow;
The wind dies out along the height
And denser still the snow.
A gathering weight on roof and tree,
Falls down scarce audibly.

The road before me smooths and fills
Apace, and all about
The fences dwindle, and the hills
Are blotted slowly out;
The naked trees loom spectrally
Into the dim white sky.

The meadows and far-sheeted streams
Lie still without a sound;
Like some soft minister of dreams
The snowfall hoods me round;
In wood and water, earth and air,
A silence everywhere.

Save when at lonely intervals
Some farmer's sleigh urged on,
With rustling runners and sharp bells,
Swings by me and is gone;
Or from the empty waste I hear
A sound remote and clear.

The barking of a dog or call
To cattle, sharply pealed,
Borne echoing from some wayside stall
Or barnyard far afield;
Then all is silent, and the snow
Falls settling soft and slow.

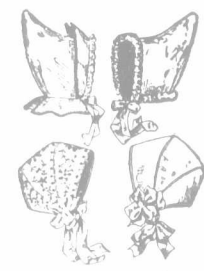
The evening deepens, and the gray
Folds closer earth and sky;
The world seems shrouded far away;
Its noises sleep, and I,
As secret as yon buried stream,
Plod dumbly on, and dream.

—Archibald Lampman.

The "Farmer's Advocate" Fashions.



6569 Child's Puffed
Coat.
2, 4 and 6 years.



6561 Child's Caps,
2 to 6 years.
478 Embroidery Pattern.



6541 Girl's Sacque
Night-Gown,
10 to 16 years.



6562 Infant's Long
Dress, One Size.

State age of child when ordering pattern. Price ten cents per number. Address: Fashion Dept., "The Farmer's Advocate," London, Ont.

"Rough Diamonds" Love Orchids; Poets Prefer Coarser Blooms.

Only by the law of opposites can you explain the attraction of the ruggedest natures toward the gentlest and frailest of flowers.

Neither esthetic nor ascetic persons care for orchids. Poets and monks like the coarsest flowers and the grimiest landscape. Oscar Wilde's emblem was the sunflower. Monks choose for their homes desolate wastes or crags, or horrible wildernesses infested by fierce beasts.

Chamberlain, the empire builder; Okuma, the rabid agitator; Haggard, author of violent and creepy romances; E. de Rothschild, the financier; Kitchener, the warrior; Ames, the plowmaker—these are great names in the "who's who" of orchid fanciers.—Franklin Clarkin, in the June Everybody's.

The Golden Dog

(Le Chien D'Or.)

A Canadian Historical Romance.

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CHAPTER LII.

The Lamp of Repentigny.

Closely veiled, acknowledging no one, looking at no one, and not themselves recognized by any, but clinging to each other for mutual support, Amelie and Heloise traversed swiftly the streets that led to the Convent of the Ursulines.

At the doors, and in the porches and galleries of the old-fashioned houses, women stood in groups, discussing eagerly the wild reports that were flying to and fro through the city, and looking up and down the streets for further news of the tragedy in the market-place. The male part of the population had run off and gathered in excited masses around the mansion of the Golden Dog, which was suddenly shut up, and long streamers of black crape were hanging at the door.

Many were the inquisitive glances and eager whisperings of the good-wives and girls as the two ladies, deeply veiled in black, passed by with drooping heads and handkerchiefs pressed against their faces, while more than one quick ear caught the deep, suppressed sobs that broke from their bosoms. No one ventured to address them, however, although their appearance caused no little speculation as to who they were and whither they were going.

Amelie and Heloise, almost fainting under their sorrow, stood upon the broad stone step which formed the threshold that separated the world they were entering into from the world they were leaving.

The high gables and old belfry of the Monastery stood bathed in sunlight. The figure of St. Joseph that dominated over the ancient portal held out his arms and seemed to welcome the trembling fugitives into the house with a gesture of benediction.

The two ladies paused upon the stone steps. Amelie clasped her arm round Heloise, whom she pressed to her bosom and said, "Think before you knock at this door and cross the threshold for the last time, Heloise! You must not do it for my sake, darling."

"No, Amelie," replied she, sadly. "It is not wholly for your sake. Would I could say it were! Alas! If I remained in the world, I could even now pity Le Gardeur, and follow him to the world's end; but it must not—cannot be. Do not seek to dissuade me, Amelie, for it is useless."

"Your mind is made up, then, to go in with me, my Heloise?" said Amelie, with a fond, questioning look.

"Fully, finally, and forever!" replied she, with energy that left no room for doubt. "I long ago resolved to ask the community to let me die with them. My object, dear sister, is like yours: to spend my life in prayers and supplications for Le Gardeur, and be laid, when God calls me to his rest, by the side of our noble aunt, Mere Madelaine de Repentigny, whose lamp still burns in the Chapel of the Saints, as if to light you and me to follow in her footsteps."

"It is for Le Gardeur's sake I too go," replied Amelie: "to veil my face from the eyes of the world I am ashamed to see, and to expiate, if I can, the innocent blood that has been shed. But the sun shines very bright for those to whom its beams are still pleasant!" said she, looking around sadly, as if it were for the last time she bade adieu to the sun, which she should never again behold under the free vault of heaven.

Heloise turned slowly to the door of the Convent. "Those golden rays that shine through the wicket," said she, "and form a cross upon the

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not leave you, Amelie. "Where thou
goest I will go, where thou lodgest I
will lodge; thy people shall be my
people, and thy God my God."

Amelie kissed her cousin tenderly.
"So be it, then, Heloise. Your heart
is broken, as well as mine. We will
pray together for Le Gardeur, be-
seeching God to pity and forgive."

Amelie knocked at the door twice
before a sound of light footsteps was
heard within. A veiled nun appeared
at the little wicket and looked grave-
ly for a moment upon the two postu-
lants for admission, repeating the
formula usual on such occasions.

"What seek you, my sisters?"
"To come in and find rest, good
Mere des Scraphins," replied Amelie,
to whom the portiere was well known.
"We desire to leave the world, and
live henceforth with the community
in the service and adoration of our
blessed Lord, and to pray for the
sins of others, as well as our own."

"It is a pious desire, and no one
stands at the door and knocks but it
is opened. Wait, my sisters, I will
summon the Lady Superior to admit
you."

The nun disappeared for a few min-
utes. Her voice was heard again as
she returned to the wicket: "The
Lady Superior deputed to Mere Esther
the privilege, on this occasion, of re-
ceiving the welcome postulantes of
the house of Repentigny."

The portiere retired from the wick-
et. The heavy door swung noiseless-
ly back, opening the way into a
small antechamber, floored with
smooth flags, and containing a table
and a seat or two. On either side
of the interior door of the ante-
chamber was a turnstile or tourelle,
which enabled the inmates within to
receive anything from the outside
world without being themselves seen.
Amelie and Heloise passed through
the inner door, which opened as of
its own accord, and they approached
it with trembling steps and troubled
mien.

A tall nun of commanding figure,
but benign aspect, received the
two ladies with the utmost affection,
as well-known friends.

Mere Esther wore a black robe,
sweeping the ground. It was bound
at the waist by a leathern girdle. A
black veil fell on each side of the
snowy fillet that covered her fore-
head, and half covered the white
wimple upon her neck and bosom.

At the first sight of the veil thrown
over the heads of Amelie and Heloise,
and the agitation of both, she knew
at once that the time of these two
girls, like that of many others, had
come. Their arrival was a repeti-
tion of the old, old story, of which
her long experience had witnessed
many instances.

"Good mother," exclaimed Amelie,
throwing her arms around the nun,
who folded her tenderly to her bos-
om, although her face remained calm
and passionless, "we are come at
last! Heloise and I wish to live and
die in the monastery. Good Mother
Esther, will you take us in?"

"Welcome both!" replied Mere
Esther, kissing each of them on the
forehead. "The Virgins who enter
in with the bridegroom to the mar-
riage are those whose lamps are
burning! The lamp of Repentigny
is never extinguished in the Chapel
of Saints, nor is the door of the
monastery ever shut against one of
your house."

"Thanks, good mother! But we
bring a heavy burden with us. No
one but God can tell the weight and
the pain of it!" said Amelie, sadly.
"I know, Amelie, I know; but what
says our blessed Lord? 'Come unto
me all ye that are weary and heavy
laden, and I will give you rest.'"

"I seek not rest, good mother,"
replied she, sadly, "but a place for
penance, to melt Heaven with prayers
for the innocent blood that has been
shed to-day, that it be not recorded
forever against my brother. Oh,

Mere Esther, you know my brother,
Le Gardeur; how generous and kind
he was! You have heard of the ter-
rible occurrence in the market-place?"

"Yes, I have heard," said the nun.
"Bad news reaches us ever soonest. It
fills me with amazement that one so
noble as your brother should have
done so terrible a deed."

"Oh, Mere Esther!" exclaimed
Amelie, eagerly, "it was not Le
Gardeur in his senses who did it.
No, he never knowingly struck the
blow that has killed me, as well as
the good Bourgeois! Alas! he knew
not what he did. But still he has
done it, and my remaining time left
on earth must be spent in sackcloth
and ashes, beseeching God for pardon
and mercy for him."

"The community will join you in
your prayers, Amelie," replied the
Mere.

Esther stood wrapped in thought
for a few moments. "Heloise!"
said she, addressing the fair cousin
of Amelie, "I have long expected you
in the monastery. You struggled
hard for the world and its delights,
but God's hand was stronger than
your purposes. When He calls, be it
in the darkest night, happy is she
who rises instantly to follow her
Lord!"

"He has indeed called me, O
mother! and I desire only to be-
come a faithful servant of His tab-
ernacle forever. I pray, good Mere
Esther, for your intercession with the
Mere de la Nativite. The venerable
Lady Superior used to say we were
dowerless brides, we of the House of
Lotbiniere."

"But you shall not be dowerless,
Heloise!" burst out Amelie. "You
shall enter the Convent with as rich
a dowry as ever accompanied an
Ursuline."

"No, Amelie; if they will not ac-
cept me for myself, I will imitate my
aunt, the admirable queteuse, who,
being, like me, a dowerless postu-
lante, begged from house to house
throughout the city for the means to
open to her the door of the monas-
tery."

"Heloise," replied Mere Esther,
"this is idle fear. We have waited
for you, knowing that one day you
would come, and you will be most
welcome, dowered or not!"

"You are ever kind, Mere Esther,
but how could you know I should
come to you?" asked Heloise, with a
look of inquiry.

"Alas, Heloise, we know more of
the world and its doing than is well
for us. Our monastery is like the
ear of Dionysius; not a whisper in
the city escapes it. Oh, darling, we
knew you had failed in your one great
desire upon earth, and that you
would seek consolation where it is
only to be found in the arms of your
Lord."



Mere Marie de l'Incarnation.
First Superioress of the Ursuline Con-
vent.

"It is true, mother; I had but one
desire upon earth, and it is crushed;
one little bird that nestled a while
in my bosom, and it has flown away.
The event of to-day has stricken me
and Amelie alike, and we come to-

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gether to wear out the stones of your pavement praying for the hapless brother of Amelie."

"And the object of Heloise's faithful love!" replied the nun, with tender sympathy. "Oh! how could Le Gardeur de Repentigny refuse a heart like yours, Heloise, for the sake of that wild daughter of levity, Angelique des Meloises?"

"But come, I will conduct you to the venerable Lady Superior, who is in the garden conversing with Grandmere St. Pierre, and your old friend and mistress, Mere Ste. Helene."

The news of the tragedy in the market-place had been early carried to the Convent by the ubiquitous Bonhomme Michael, who was out that day on one of his multifarious errands in the service of the community.

The news had passed quickly through the Convent, agitating the usually quiet nuns, and causing the wildest commotion among the classes of girls who were assembled at their morning lessons in the great schoolroom. The windows were clustered with young, comely heads, looking out in every direction, while nuns in alarm streamed from the long passages to the lawn, where sat the venerable Superior, Mere Mizeon de la Nativite, under a broad ash-tree, sacred to the Convent by the memories that clustered around it. The Ste. Therese of Canada, Mere Marie de l'Incarna-

tion, for lack of a better roof, in the first days of her mission, used to gather around her under that tree the wild Hurons, as well as the young children of the colonists, to give them their first lessons in religion and letters.

Mere Esther held up her finger warningly to the nuns not to speak, as she passed onward through the long corridors, dim with narrow lights, and guarded by images of saints, until she came into an open square flagged with stones. In the walls of this court a door opened upon the garden, into which a few steps downwards conducted them.

The garden of the monastery was spacious, and kept with great care. The walks meandered around beds of flowers, and under the boughs of apple trees, and by espaliers of ancient pears and plums.

The fruit had long been gathered in, and only a few yellow leaves hung upon the autumnal trees, but the grass was still green on the lawn where stood the great ash-tree of Mere Marie de l'Incarnation. The last hardy flowers of autumn lingered in this sheltered spot.

In these secluded alleys the quiet recluses usually walked and meditated in peace, for here man's disturbing voice was never heard.

But to-day a cluster of agitated nuns gathered around the great ash-

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tree, and here and there stood groups of black and white veils; some were talking, while others knelt silently before the guardian of the house, the image of St. Joseph, which overlooked this spot, considered particularly sacred to prayer and meditation.

The sight of Mere Esther, followed by the well-known figures of Amelie and Heloise, caused every head to turn with a look of recognition; but the nuns were too well disciplined to express either surprise or curiosity in the presence of Mere Migeon, however much they felt of both. They stood apart at a sign from the Lady Superior, leaving her with a nun attendant on each side to receive Mere Esther and her two companions.

Mere Migeon de la Nativite was old in years, but fresh in looks and alert in spirit. Her features were set in that peculiar expression of drooping eyelids and placid lips which belongs to the Convent, but she could look up and flash out on occasion with an air of command derived from high birth and a long exercise of authority as Superior of the Ursulines, to which office the community had elected her as many trienniums as their rules permitted.

Mere Migeon had been nearly half a century a nun, and felt as much pride as humility in the reflection. She liked power, which, however, she exercised wholly for the benefit of her subjects in the Convent, and wore her veil with as much dignity as the Queen her crown. But, if not exempt from some traces of human infirmity, she made amends by devoting herself night and day to the spiritual and temporal welfare of the community, who submitted to her government with extreme deference and unquestioning obedience.

Mere Migeon had directed the two sorrowing ladies to be brought into the garden, where she would receive them under the old tree of Mere Marie de l'Incarnation.

She rose with affectionate eagerness as they entered, and embraced them one after the other, kissing them on the cheek; "her little prodigals returning to the house of their father and mother, after feeding on the husks of vanity in the gay world which was never made for them."

"We will kill the fattest calf in honor of your return, Amelie. Will we not, Mere Esther?" said the Lady Superior, addressing Amelie, rather than Heloise.

"Not for me, reverend Mere; you shall kill no fattest calf, real or symbolic, for me!" exclaimed Amelie.

"I come only to hide myself in your cloister, to submit myself to your most austere discipline. I have given up all! Oh, my Mere, I have given up all! None but God can know what I have given up forever!"

"You were to have married the son of the Bourgeois, were you not, Amelie?" asked the Superior, who, as the aunt of Varin, and by family ties connected with certain leading spirits of the Grand Company, had no liking for the Bourgeois Philibert; her feelings, too, had been wrought up by a recital of the sermon preached in the market-place that morning.

"Oh, speak not of it, good Mere! I was betrothed to Pierre Philibert, and how am I requiting his love! I should have been his wife, but for this dreadful deed of my brother. The Convent is all that is left to me now."

"Your aunt called herself the humble handmaid of Mary, and the lamp of Repentigny will burn all the brighter trimmed by a daughter of her noble house," answered Mere Migeon.

"By two daughters, good Mere! Heloise is equally a daughter of our house," replied Amelie, with a touch of feeling.

Mere Esther whispered a few words in the ear of the Superior, advising her to concede every request of Amelie and Heloise, and returned to the wicket to answer some other hasty call from the troubled city.

Messengers despatched by Bonhomme Michael followed one another at short intervals, bringing to the Convent exact details of all that occurred in the streets, with the welcome

tidings at last that the threatened outbreak had been averted by the prompt interposition of the Governor and troops. Comparative quietness again reigned in every quarter of the city.

Le Gardeur de Repentigny had voluntarily surrendered himself to the guard, and given up his sword, being overwhelmed with remorse for his act. He had been placed, not in irons, as he demanded, but as a prisoner in the strong ward of the Castle St. Louis.

"I pray you, reverend Mere Superior," said Amelie, "permit us now to go into the Chapel of Saints to lay our hearts, as did our kinswoman, Madelaine de Repentigny, at the feet of our Lady of Grand Pouvoir."

"Go, my children, and our prayers shall go with you," replied the Superior; "the lamp of Repentigny will burn brighter than ever to-night to welcome you."

The Chapel of Saints was held in reverence as the most sacred place in the monastery. It contained the shrines and relics of many saints and martyrs. The devout nuns lavished upon it their choicest works of embroidery, painting and gilding, in the arts of which they were eminent. The old Sacristaine was kneeling before the altar as Amelie and Heloise entered the Chapel.

An image of the virgin occupied a niche in the Chapel wall, and before it burned the silver lamp of Repentigny, which had been hung there two generations before in memory of the miraculous call of Madelaine de Repentigny, and her victory over the world.

The high-bred and beautiful Madelaine had been the delight and pride of Ville Marie. Stricken with grief by the death of a young officer to whom she was affianced, she retired to Quebec, and knelt daily at the feet of our Lady of Pouvoir, beseeching her for a sign, if it was her will, that she should become an Ursuline.

The sign was given, and Madelaine de Repentigny at once exchanged her gay robes for the coarse black gown and veil, and hung up this votive lamp before the Madonna as a perpetual memorial of her miraculous call.

Seven generations of men have passed away since then. The house of Repentigny has disappeared from their native land. Their name and fame lie buried in oblivion, except in that little Chapel of the Saints where their lamp still burns brightly as ever. The pious nuns of St. Ursule, as the last custodians of the traditions of New France, preserve that sole memorial of the glories and misfortunes of the noble house—the lamp of Repentigny.

Amelie and Heloise remained long in the Chapel of Saints, kneeling upon the hard floor as they prayed with tears and sobs for the soul of the Bourgeois, and for God's pity and forgiveness upon Le Gardeur.

To Amelie's woes was added the terrible consciousness that, by the deed of her brother, Pierre Philibert was torn from her forever. She pictured to herself his grief, his love, his despair, perhaps his vengeance; and to add to all, she, his betrothed bride, had forsaken him and fled like a guilty thing, without waiting to see whether he condemned her.

(To be continued.)

On Lord Dufferin's estate, near Belfast, there once stood a historic ruin, a castle which had been a stronghold of the O'Neils. One day Lord Dufferin visited it with his steward, Dan Mulligan, and drew a line with his stick round it, telling Mulligan that he was to build a protecting wall on that line. And then he went to India, feeling secure as to the preservation of the great historic building.

When he returned to Ireland, he hastened to visit the castle. It was gone. He rubbed his eyes, and looked again. Yes, gone it certainly was, leaving not a trace behind it. He sent for Dan, and inquired, "Where's the castle?"

"The castle, my lord. That could thing? Sure, I pulled it down to build the wall wid' it."

The Story of a Home.

It ought to have been a happy home. There seemed to be all the requirements. Two young people of congenial thoughts, and deeply in love with each other, complemented by a good start, which, in this instance, consisted of a beautiful Ontario homestead of two hundred acres, well stocked and equipped, and, in addition, twenty-five hundred dollars in cash. They were members of the same church, so there could be no clash of religious views. There were no unfortunate mothers-in-law to unsuspectingly stir up strife. Yes, it ought to have been a happy home. Only—it wasn't.

I remember it well. The farm adjoined the old schoolhouse in the hollow. Many a time have I, with the other boys of the old days, gone to the top of the hill and eaten our lunch of homemade bread and raspberry jam, in the shade of a huge beech tree, with the gables of this home of which I speak facing us. It was a pretty home. A towering pine near the corner of the stone house stood out in bold relief against the grim, gray walls. The pink lilacs, with their many-shaped heads, stood like sentinels behind the picket fence. The pale snowballs waved in countless glory at either side of the gate. There were beds of pansies along the pebbled walk, while the red trimmings of the door and window casings served to break the monotony of the cold, gray stone.

First of all, let us have a little talk about the father in this home. In the first place, he was the youngest son. More than that, he was what we have come to know as a spoiled boy. Still, that should not have mattered. He had a good deal of business ability, but as we shall see more clearly, later, he was intensely selfish. However, he acted wisely in selecting a life partner, and he was envied by not a few boys of the neighborhood when he led to the altar beautiful and talented Ruth Wallace. She had taught the Hollow school for more than two years, and had endeared herself to the folk of the community in no small degree. She had a lovable disposition, was quite as clever as her husband, and deeply in love with the man of her choice. If she had any weaknesses, it was that she would weakly submit—I shall not now say in what way—and that she seemed to be lacking in knowledge of the right thing to do at just the right time.

The new craft had been launched. The vows had been made. The rice had been thrown. The honeymoon was over. The home-coming was a few days in the past. The new home was begun. And so my tale hath begun, too.

The years passed. Perhaps half a dozen rolled around with nothing of events except that a few more branches were added to the family tree. About every year and a half a chubby-faced boy would come to gladden the hearts in the new home. All boys, five of them, all told, and then a golden-haired girl. How glad they were! Their cup of joy was full.

When Harry, the eldest, was about four years old, his father made a new venture. He bought a timbered farm and also a mill. He made money fast. Prosperity seemed to be smiling upon him. Encouraged by his success, he sold his mill in the country and built a large planing mill in the county town, ten miles away. He still operated his farm with hired help, although he moved his family to town, where he built a magnificent house.

But right here, let me mention that in those days of increasing prosperity, his wife, in addition to looking after the wants of the ever-increasing family, was working like a slave. With the aid of a little orphan girl they were raising, she did all the work for the big gang of men employed by her husband. The big house was found to be rather far away from the mill, and they moved to a smaller house in a more convenient location, where she cooked for the mill gang just as she had done in the country. If she had been a tenth as selfish as her husband, she would have struck, and that would have been the end of turning their home into a huge boarding-house. But, alas! she was weak enough to submit. As for him, his success seemed to be crowding all other things out of his life.

And still he succeeded. This was before the days of public ownership, and he began snuffing the power for the town's

a Home.

a happy home. requirements. each other, which, in this beautiful Ontario red acres, well and, in addition, in cash. They same church, so religious views. mothers-in-law strife. Yes, it py home. Only

The farm ad- in the hollow. the other boys the top of the of homemade in the shade of e gables of this ng us. It was ring pine near ouse stood out he grim, gray ith their many- entinels behind ale snowballs at either side eds of pansies while the red d window cas- onomy of the

e a little talk home. In the youngest son. what we have d boy. Still, ered. He had ability, but as later, he was er, he acted partner, and he w boys of the d to the altar uth Wallace. ow school for had endeared community in a lovable dis- er as her hus- ith the man of y weakness, akly submit—I ay—and that n knowledge just the right

unched. The rice had been as over. The s in the past. And so my

haps half a h nothing of ore branches tree. About bby-faced boy hearts in the of them, all d girl. How ip of joy was

as about four new venture. and also a Prosperity a him. En- sold his mill large planing miles away. m with hired his family to nificent house. tion that in prosperity, his ng after the family, was h the aid of e raising, she gang of men l. The big er far away moved to a venient loca- he mill gang country. If elfish as her ck, and that turning their house. But, o to submit- eemed to be of his life. This was be- ship, and he r the town's

electric-light system, erecting a big plant for the purpose. He also bought several small mills throughout the country. Verily, his star was in the ascendant.

But he was intensely unpopular with his employees. There was a reason. He used them like dogs. To him they were but mere things to do his bidding; mere cogs in the machinery of production, which, unfortunately, he could not get along without.

Then one night, like a bolt from the blue, the crash came. The planing mill and power plant went up in smoke. Nothing was saved, and worse than that—and here his intense selfishness was apparent—there was no insurance. He was too tight and niggardly to have his property insured.

He was crippled. He sold his big house at a sacrifice and went back to the farm. But before removing to the farm there was another happening that showed the character of the man.

He went out one afternoon to inspect a small mill in which he had a controlling interest. It was an old, ramshackle affair, and the boiler had long since been condemned. The engineer, a cautious fellow, was afraid to allow any more than sixty pounds of steam. Needless to say, things were going slow. "Too slow," he said, and he told the engineer to fire up. The engineer refused, and he fired up himself, his face beaming with satisfaction as he noted the pressure rising. In less than an hour there was a terrific explosion. The engineer and fireman were both killed, but he was in another part of the mill at the time and escaped with a terrible shaking up. He was not able to leave the house for a month.

This was another nail in his financial coffin. The wife of the dead engineer sued him for damages, and she got judgment for a large amount. Friends of other days looked the other way when he passed now. And the poor wife and mother endured anguish such as few of us ever know.

A peculiar thing about the father was that after each crisis he would always get religion. He would attend church regularly for a few Sundays. He would rise in fellowship meeting (he was a Methodist) and, as the tears would roll down his cheeks, vow to turn over a new leaf. His wife would be cheered a little. But it would last but a few weeks, although I believe he really intended to do better. In a short time his place in the pew would again be vacant, and his wife would be driven back to the old despair.

Some fifteen years after their marriage, and a couple of years after the explosion, he sold his property, paid his debts, and with what little money they had, migrated to one of the new provinces of Western Canada—to start afresh.

All went to work with a will to repair the family fortune. The eldest of the boys was fourteen and the youngest eight, while two more little girls had come into the home, the youngest a babe of a few months. He bought a large block of land in a growing town for a small figure and on long-time payments, paying a small amount down. Both the town and the surrounding country were just beginning to grow.

How they worked! From 4 o'clock in the morning until 11 at night, the family was on the move. Succeeded? Yes, but what a success! The wife and mother continued to be the slave of the old days. If the boys wanted any pocket-money they had to go and work in a near-by brickyard to earn it, as the miser father would not give them a cent. This sort of treatment handed out to ambitious, manly boys, always spells failure.

The autumn that the oldest boy was nineteen, he went away to take a short course in a preparatory school to augment his meagre education. The boys had very rarely got to school, except in winter time. They were always working. But somehow the mother persuaded the austere father to allow Harry to get away to school. Hard words were said, though. The boy left home without saying good-bye to the father, and he carried away with him a storm of resentment in his heart.

He never returned. The following spring he engaged with a Government survey party in a far northern district, three hundred miles from the nearest railroad point. One morning he cut his foot and returned to camp. In the afternoon he went in swimming in a near-by lake, took cramps and was drowned. It was

during the hot weather in summer, and it was an utter impossibility to take the body home, as the only means of transportation was by pack train. So they buried him near the ill-fated camping ground. One of the boys read a chapter, another offered a brief prayer, and a third put up a stake to mark the spot, and they left him alone—with his God.

When the letter came, three weeks later, telling the loved ones at home what had happened, the mother went almost insane. Her eldest! Her darling, round-faced Harry. Dead! And sent from home by a father's cruelty.

Somehow, I have to linger here. Harry and I were especial friends. We sat together in the old hollow school. We tossed pebbles in the same brook. We played tricks together on hallowe'en. What a bright fellow he was! Even now I can see his bland smile and hear his hearty laugh. But, no! It was not to be. He will never take his place in life. The lake claimed him. But I cannot forget that a miserly father drove him from home.

And what of the home to-day? The mother still slaves away, doing work enough for two ordinary women. But, in addition, she nurses a bleeding heart, and she tries to keep in check a rebellious spirit, rebellious against the man of her maiden love and girlish desire. The father still holds as tightly as ever the purse-strings. He gets a little richer and a little more selfish every year. The boys still work in the brickyard to get a little money to spend.

And yet, in a strange way, but as it sometimes happens, the name of the father has risen. Not long since he was appointed a member of an important live-stock commission. It pleases him well, and gratifies his selfish vanity that the public recognize his success.

But of the man himself, just a word. He is only forty-nine, yet he is crooked like seventy-two. His hands are curved—as if always ready to grasp. His hair is white. I passed through his town a few days ago, and he was standing on the platform. Hard! Stern! Cruel! I looked on the miserly countenance, and I thought, "Oh, that I were an artist! What a model for the incarnation of selfishness!" and the train pulled out.

I often think, as I look back over the years, that things might have been vastly different if the mother had been more aggressive and less submissive. If she had stood up stoutly for her rights at the beginning, and demanded that her husband respect them, he would not have dared to refuse her request, and in reality would have loved her more. In those days when the world began to grip him tighter, and he was losing his hold on love and home, a good mental shaking up might have done him a world of good. His wife would have needed a strong will to have done it, but there would have been a happier home to-day.

I do not mention this as an excuse for the man. There is none. But I mention it with the hope that someone in similar circumstances, and who apparently sees no avenue of escape, may think and act.

My story is done. The boys are leaving home, one by one. The mother's heart gets a little heavier and the father's a little harder as the days go by. And so I leave them. Yes, it ought to have been a happy home. Only—it wasn't. It ought to be a happy home to-day. Only—it isn't.—By "Observer," in Christian Guardian.

A Western editor had one invariable, inflexible policy; he would not make a direct contradiction of anything that appeared in his paper, because, as he put it, admission of error cost him the confidence of his readers. One day an irate citizen slammed his way into the office.

"Sir," he exclaimed, with degrees of emphasis, "in this copy of your newspaper you have said that I was hanged."

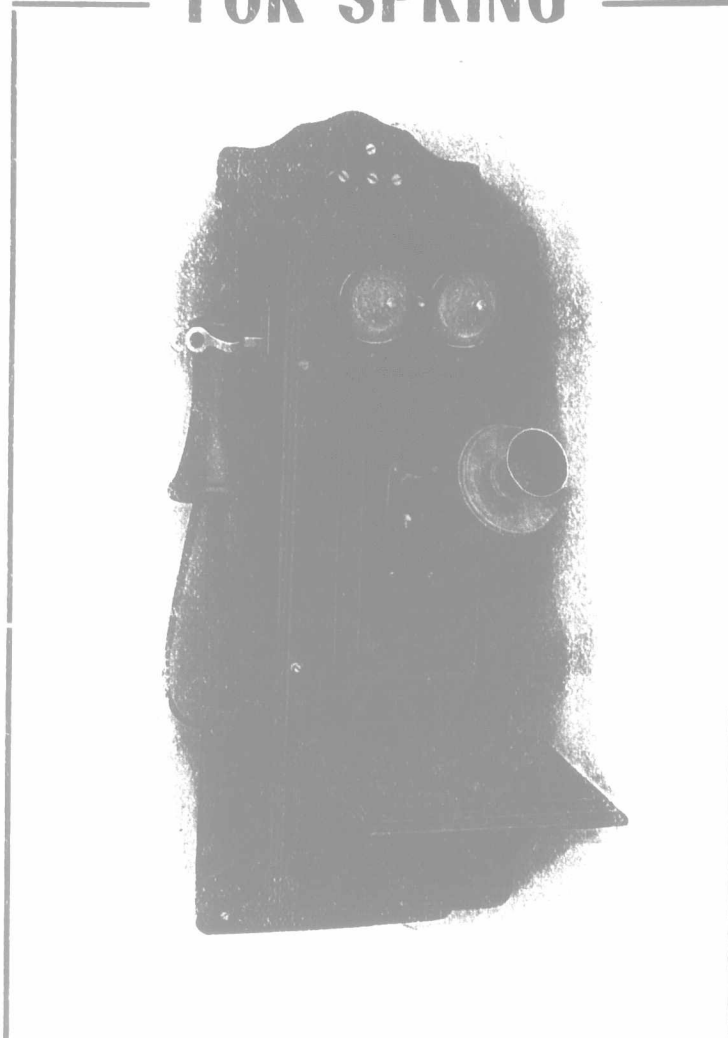
"Well?"

"Well, I haven't been hanged. Not only that, but I've never been condemned, or even accused of crime. I demand an immediate and full retraction!"

The editor hesitated; then he smiled, as one who had solved a delicate problem. "I'm sorry," he said. "I am really sorry we said you were hanged. And I can't directly contradict it, because that would make our readers lose confidence in us; but I'll tell you what I'll do: I'll say in to-day's paper that you were cut down before life was extinct."

Telephone Talk

FOR SPRING



If you have not got a local telephone line or system, the spring is the time to undertake the work of building. Get the information now, and be ready for the opening of the season. You should not let another busy summer find you without a telephone. Write us for information, and ask for our No. 2 Bulletin.

DO NOT HESITATE.

Do not hesitate. You can build your own line and get efficient telephone service at a small cost. Others have done this and so can you. We are ready to help you in any way possible.

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Never since we have been manufacturing telephones have we received so many strong recommendations from those using our telephones. This expressed satisfaction is making new customers for us every week.

If you are extending your lines this spring, give us a chance of equipping your new lines with our telephones. If you have not used ours before, this will give you a chance to compare them with what you have been using and decide for yourself which is better value.

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We carry a large stock of construction supplies constantly on hand, and can look after all orders promptly. Let us quote you.

Prompt Shipments and guaranteed satisfaction are making our success.

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E. RUSE, Depot Agent.



A VERY choice 150-acre farm for sale, Oxford County, West Zorra Township, 3 miles from Embro, 10 miles north-west of Woodstock. Situated in a fine cheese-factory section; one-half mile to school. Nearly all fine buildings in this section. Mostly Scotch people. A very rich and productive clay loam soil, nearly level, easily worked; 125 acres cleared; 15 acres timber. Good buildings. Cottage; brick house, 3 large rooms, 5 bedrooms; cellar; new furnace. New barn, 50x80; barn, 27x50; all on stone basements. Buildings well equipped with lightning rods. Lots of good water pumped into elevated tank; tap in house, all in barnyard. Some farms are selling in this section \$100 an acre. An offering very cheap at \$9,200; \$2,500 down, balance at 4 1/2%. Apply to R. Wate, Princeton, Ont.

FOR SALE—400,000 feet iron pipe—good as new—for water, steam, fencing and fence posts, drains, etc. Any size. Write for prices, stating sizes. Imperial Waste & Metal Co., 13 Queen St., Montreal.

FOR SALE—Seed barley, O. A. C. No. 21. Good sample, pure and clean, at \$1 per bush. Also emmer, good sample, clean, 75 cents bush. Our barley won first prize in field-crop competition (Mt. Forest) 1907, and first prize at fall fair (Mt. Forest) 1907, 1908 and 1909. Chester Nicholson, Mt. Forest, Ont.

Interested in growing strawberries send for my catalogue; it's free. Tells you how to grow them. Jno. Downham, Strathroy, Ontario.

NIAGARA FRUIT LANDS—For sale cheap. Advancing price rapidly. Profits from two and a half acres last year, \$2,000. Big money, little work. Write: John Grandy, Chatham, Ont.

O. A. C. No. 21 Barley. Another grand lot now ready. I increased one pound to nine hundred bush in three crops. Filled eighty-five orders last spring. One dollar. Jno. Elder, Hensall, Ont.

RESPONSIBLE agents wanted—Heavy Woven Fencing, Gates, Coiled and Barbed Wire, Snags and Locks. Write for agents' prices. National Wire Fence Co., Prescott, Hamilton and Walkerville. Write to Prescott, Ont.

TEXAS! TEXAS!—If you wish to get any kind, or all kinds of information, absolutely reliable about Texas, every phase of it, including detailed description of each county, send for a copy of the "Texas Almanac and State Industrial Guide" to The Dallas News, Dallas, Tex. Price 30c; a copy, postpaid, including late map of Texas.

VANCOUVER Island offers sunny, mild climate; good profits for young men with small capital in business, professions, fruit-growing, poultry, farming, manufacturing lands, timber, mining, railroads, navigation, fisheries, new towns. For authentic information, free booklets, write Vancouver Island Development League, Room A 102, Law Chambers Bldg., Victoria, B. C.

WANTED Girl for general housework. Good wages. Good home. Every convenience. Small family. Railway fare paid. Apply: Mrs. Lester Weaver, Hespeler, Ont.

WANTED, married man, with small or no family, who thoroughly understands the care and feeding of all kinds of farm stock, and make himself generally useful. Apply: Box 73, South Woodstock, Ontario.

200-ACRE farm for sale. One of the best in County of Simcoe. 45 acres is solid hardwood bush. Excellent soil. Fine large brick house. New barn built last year, one 45 x 90, the other 35 x 70. Good water system. Located three miles from town. Any one looking for a high class farm should write or see D. Horrell, Midland, Ont.

Delhi Tannery Custom robe and fur tannery. If you have a cow hide or horse hide you want tanned or made into a robe or a fur coat, or have any kind of hides, skins or furs you want tanned, send them to me and have them dressed right. B. F. BELL, DELHI, ONT.

For Sale: Imp. Hackney Stallion
TRUMAN'S CADET (Vol. 21) No. 8684.
Sire Wood Ganymede (7674).
Dam, Claygate Rose (Vol. XXI).

As a two-year-old he won first at the International Show, Chicago, and also reserve champion at the International same year, 1913. Also first at St. Louis World's Fair, 1904, and reserve for champion at same show. For particulars address:
H. FARNCOMB, MASONVILLE, ONTARIO

Napoleon's First Library.

Reading was the life-long hobby of Napoleon's leisure. In the bare room of the penniless artillery sub-lieutenant at Valence, the book-box—his brother Joseph asserted—was larger than the trunk which sufficed for Napoleon's scanty wardrobe. In Paris—before Brumaire brought him forward to the first rank—he spent his time principally in the Bibliotheque Nationale. A veritable library accompanied him to Egypt. And once definitely settled in France as First Consul, he selected, in the Malmaison, the quietest and most pleasant room for his first library.

FAVORITE AUTHORS.

Separated by a long "Council Chamber" from Josephine's brilliant and noisy reception-rooms, it looked out, on three sides, to the quiet, leafy garden. A door opened on a miniature bridge across a moat. On this bridge an awning was fitted up, and a small table and chair placed. Thus, on summer days, the Consul worked in the open air within easy reach of his works of reference. These were some 5,000 in number, history and philosophy predominating. French authors were naturally most numerous. The classics figured as French translations, for the most Roman of modern Emperors—like the author of "Julius Caesar" and "Coriolanus"—had "small Latin and less Greek" scholarship: Shakespeare, by the way, figured on the Malmaison shelves, with Pope, and, of course, Ossian, Napoleon's lifelong favorite. Among other English authors, the novels of Fielding and Richardson were keenly appreciated by the Emperor; and Milton and Hume he also studied.

A READER OF NOVELS.

Restored after long years of neglect, the Malmaison is now a public museum, and the first and most personal of Napoleon's libraries open to the inspection of the Parisian tourist. The ceiling is adorned with medallions of the First Consul's favorite authors, in the pseudo-classical style of the epoch when "Art stopped short at the cultivated court of the Empress Josephine." The plain elbow chair still bears the gashes made by Napoleon's penknife, the writing table is ample and simple. Close by is a curious piece of furniture, on the child's money-box system, into which private papers could be introduced rapidly, but could only be extracted by the use of lock and key.

Here Napoleon worked his way to an Imperial throne. Hither he fled, his throne finally lost, after Waterloo. Hence he wrote to his librarian at Paris to draw up a list of books, and especially on America, to accompany him to the United States. But he lingered too long in his library. "I don't understand the Emperor," exclaimed Queen Hortense, as she restlessly wandered in and out of his presence. "Instead of deciding something about his departure, there he sits, novel-reading." Reading light literature was Napoleon's relief in moments of mental overstrain. On board the Bellaphon he "dozes over Ossian." At St. Helena he reads perpetually to forget his captivity. —E. P.'s Weekly

In Church.

In front of my pew sits a maiden,
A little brown wing on her hat,
With its touches of trojral aure,
And sheen of the sun upon that.

Through the rose-colored pane shines a glory,
By which the vast shadows are stirred,
How I pine for the spirit and splendor
That painted the wing of the bird.

The organ rolls down its great anthem,
With the soul of a song it is blent,
But for me, I am sick for the "Angels"
Of one little song that is spent.

The voice of the organ is gentle,
"No sparrow shall fall to the ground,"
But the poor, brown wing on the maiden
Is making the peaceful sound.

Close and sweet is the breath of the lily,
A lily on the altar of prayer,
But my soul is athirst for the fragrance
Far out in the spiritual air.

And I wonder if ever or never,
With tapers unquenched and lit,
I shall find the white spirit of lily
Abroad at the Heart of the World.

A Honolulu Heroine.

Helen Wilder, of Honolulu, is not a good person for a horse-beater to meet. For as sure as she sees an act of cruelty, she marches the offender off to the police station and leaves him to the punishment of the law.

Miss Wilder is one of the richest women in Hawaii. But she does not lounge in her hammock and weave garlands for her pretty head. Instead of that she is up at dawn and galloping over the region that she has made her beat. For she is a policeman, and her special care is the safety and comfort of helpless children and dumb animals.

She is the champion of the weak; she rides like a vaquero, and springs from her horse to cuddle and croon over some sick or misused baby. By full authority of the law, she arrests any malefactor without going to the trouble to secure a warrant and thus delay the course of justice. A recent suit in the Honolulu courts settled this matter conclusively.

She arrested a street-car driver for heating his mules. She had no warrant, and the defendant, claiming that the arrest was illegal, demanded \$5,000 for injuries to his reputation.

After a long trial, the jury decided in favor of Miss Wilder, and the court authorized her to make arrests whenever she thought proper.

Helen Wilder goes wherever her duty calls. If the checkrein of the swiftest turn-out in Honolulu is drawn too tight, she commands the driver to stop and unfasten it. Fear she has never felt. Coolie, Jap, Kanaka, or white man, she arrests them all in spite of threats. Let the drivers overload the "buses, or the Waikiki trams pull out overloaded, and out come her handcuffs. She will brook cruelty toward neither children nor animals.—Chicago Journal.

"To Limerick."

Here goes my love to Limerick! 'Tis there that I would be,
In the rare town, the fair town, that lies beyond the sea.

Myself and darling Limerick we've been too far apart,
But the easy town, the breezy town, she always had my heart.

Of all the towns I ever saw, wherever I was set,
There's only one beneath the sun I never could forget.

I've shut my eyes in distant lands, and, oh, my mind was torn,
For I saw the streets of Limerick, the place where I was born.

But I was far away from her, the city of my joy,
Where once I wandered light as air, a little barefoot boy.

Since then I've worn the leather out, but never trod so free,
As long ago in Limerick, the only place for me.

R. C. Lehmann.

TRADE TOPIC.

NEW TRADERS BANK BRANCHES.—A branch of the Traders Bank has been opened in Eskine, Alberta, and we are advised that one will be opened in Matheson, Ontario, about the 21st instant. This will make ten branches of the Traders Bank in Canada.

GOSSIP.

The imported Clydesdale stallion, Baron Crawford, illustrated in our issue of February 17th, was incorrectly described as a three-year-old. He is, in fact, rising two, and his sire is Blacen Sensation, by Baron's Pride.

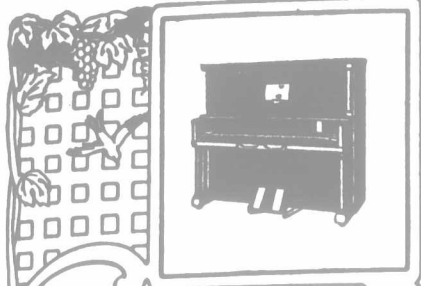
Re the dispersion sale of the Holstein herd of J. A. Caskey, Madoc, Ont., to take place on March 25th, Mr. Caskey writes that Col. D. S. Perry, of Columbus, Ohio, will officiate as auctioneer, and that stages connect with C. P. R. at Ivanhoe, and C. O. R. at Eldorado, and will, on date of sale, deliver intending purchasers at the farm. The G. T. R. runs into Madoc, and arrangements are complete for transportation from G. T. R. station to farm. The sale commences at 1:30 p. m., and cheap rates will be available on account of the holiday.

J. Watt & Son, Salem, Ont., write: We have recently sold one of the three bulls advertised, to Wm. F. Stephens, Everett, Ont. He is sired by Imp. Pride of Scotland, and out of an English Lady dam. To Wm. H. Lyons, Creekbank, Ont., three extra-good heifers, a Crimson Flower, an English Lady, and a Rose of Strathallan. Mr. Lyons has been breeding Shorthorns for years, and buys only the best. We have still two extra-good bulls, a roan 16-months, from imported sire and dam, that will make a show bull, and a red 14-months, by an imported bull, and his dam is from imported sire and dam, and he is good enough to use in any herd.

THE MARKHAM SHORTHORN SALE.

Re the dispersion sale of the Shorthorn herd of Ed. Robinson, to take place at Markham, Ont., on March 11th, special mention might be made of the roan six-year-old cow, Broadhooks Rose, of the Broadhooks family, and from the same cow as the stock bull, Broadhooks Golden Fame (imp.). She is a good individual and a grand breeder. Three heifers of hers are in the sale, and she is due to calve again in April to the Secret bull, Royal Fancy (imp.). The Jilt cow, Rothnick Rose 4th (imp.), is also a big, thick-fleshed, good-breeding cow, a good roan bull calf from her will also be sold. Jessamine 8th, a red daughter of the imported cow, has a grand six-months red-roan bull calf at foot, that should make a show calf. She is one of the best breeding cows in the herd. Rosemary 119th is a well-bred Shepherd Rosemary, a good breeder, and a first-class milker, with a good calf at foot. Lady Dorothy 39th, a good, thick-fleshed cow, by Rustic Chief (imp.), is one of the best in the herd; she has a 7-months heifer calf at foot, and in calf again to Royal Fancy (imp.), one of the best breeding bulls in Canada. He is a son of the Marr-bred Scottish Fancy, and is out of the Cruickshank Secret tribe, tried sire, active, and in the prime of life, he is also recorded in the American Herdbook, and is in the sale. Also the imported bull, Masterpiece, Vol. 56, E. H. B., recently imported by that noted breeder, John Isaac. He will be a year old in March, and is a good, straight calf, from the Claret family, sired by Domine (91491), a Bruce-bred bull, his dam, Claret 8th, was sired by the Marr Goldie bull, Sir Walter (87392), he by the \$8,000 bull, Bapton Favorite. The bull calves are as even a lot as has been offered at auction this year.

R. Honey, Brickley, Ont., breeder of Holsteins and Yorkshires, writes: I have sold all of my surplus Holsteins, but have some fine Yorkshire sows and boars ready to mate, for sale. Some of my recent sales have been to A. B. Eagleston, Cold Springs, my stock bull, Prince Posch Calamity Bleske, which, as his name indicates, is a descendant of Calamity Jane, of which no mention is needed. His dam is Bleske Acorneth (R. O. M., 12,15 as a two-year-old), and Queen De Kol of Munster, her R. O. P. record being 9,420.75 lbs. milk, and 301.5245 lbs. fat, as a two-year-old. Russel Warner, Brickley, secured Prince Pieterite Posch, born May 1st, 1909, his dam being Pieterite Maid, now under test for the R. O. P. Queen De Kol's Posch Calamity, born May 4th, 1909, went to James Ramsay, Wainstead, Ont., his dam being Queen De Kol of Munster, mentioned above. The bull, Calamity Snowflake De Kol, went to A. D. Freetz, Penobscot, N. B.; his dam is Snowflake Queen De Kol of Munster, whose R. O. P. record is 13,989 lbs. milk, and 413.24 lbs. fat, at five years of age. Kenneth Orser, Elmberg, secured Sir Kenneth Calamity De Kol, born June, 1909, his dam, Jongste Anggie's Maud of Munster, has a private record of 77 lbs. milk per day. Dandy De Kol Posch Calamity, born May, 1909, went to Chas. A. Stephens, Ravenshoe, his dam being Netherland Belle De Kol, a promising heifer from Katie's Foxo De Kol. To Wm. Webb, Dunbury, Hector Calamity De Kol, born September, 1909, a son of Fairmount Munster De Kol, granddaughter of my foundation cow, Munster Maud; her private record was 73 lbs. of 4-per-cent. milk. All of these calves are sired by the above-mentioned bull, Prince Posch Calamity Bleske, bred by Geo. Rice.



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The New Scale Williams Player Piano does the merely mechanical part of piano playing.

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Where we have no regular agent, we will send these Player Pianos on approval—and make the terms convenient. Write us.

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Are you going to seed down a field with this valuable forage plant? YOUR SUCCESS greatly depends on the seed you select. Our "Gold" Brand we honestly think is the best that can be got. It is a large, bright, PURE and CLEAN seed.

BUY NOW. Present price, \$13.00 per bush. f.o.b. Toronto. Bags, 25c. each. A seeding of 20 lbs. per acre gives the best results.

Present prices for our best Red Clover, Alsike and Timothy:

Table with 2 columns: Brand/Seed Type and Price per bush. Includes Sun Brand Red Clover, Ocean Brand Alsike Clover, and Diamond Brand Timothy.

PURE. CLEAN. THE BEST.

We offer No. 1 Government Standard Red, Alsike and Alfalfa Clovers, also Timothy, at 50c. per bush. less than above prices.

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When Writing Mention The Advocate

QUESTIONS AND ANSWERS.

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

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

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

4th.—When a reply by mail is required to urgent veterinary or legal enquiries, \$1.00 must be enclosed.

Miscellaneous.

BOOK ON FISH CULTURE.

Will you please inform me where I could get a book on fish culture. S. P.

Ans.—Mather's "Modern Fish Culture," published by Forest and Stream Publishing Co., New York. Price, \$2.00.

A few pamphlets on fish culture may be obtained from the United States Department of Agriculture, Washington, U. S., at 10c. each.

GRINDING HARDENED CEMENT.

Three years ago I built a foundation under a large barn and have about 20 barrels of cement left. It has been kept in a dry place; it is in the cotton bags in which it came to me, and they have not been moved. It has got very hard. Could I break it up and have it ground over in a mill for the purpose (there is one in the neighborhood). I thought it still might be useful for making floors or culverts across a small stream on the farm.

Ans.—If cement has been kept dry it may, however hard it has become, be broken up and reground, and will be found almost as good as ever.

LIVER DISEASE IN POULTRY.

I have about a dozen White Leghorns, mostly pullets, and one old Plymouth Rock, the latter being kept for setting purposes. The Plymouth Rock has been laying pretty regularly since December last, until about a week ago, when I noticed she began to mope, and her comb turned dark. I killed her yesterday. Her flesh seemed to have a purple hue, and, on opening her, she contained about a half-pint of greenish-colored water. Her liver seemed to be quite large, with a few greenish-white spots on it, but I did not notice any gall. What was the matter with her, and is it liable to have any ill effect on the rest of the flock? At present the Leghorns are very lively, and laying well. I cremated the Plymouth Rock in the furnace. M. O. W.

Ans.—The death of the fowl in this case was, doubtless, due to an acute form of liver trouble—it really does not matter which—for the hen was old, and was at that age when liver trouble is to be expected. She had probably done good service to her owner. The dark comb was a sure index of liver disease. Liver trouble in old fowls is usually due to generous, perhaps too generous, feeding. It is not infectious. If properly fed and handled—as, doubtless, they are—the White Leghorns are, without doubt, in prime condition, as their liveliness and good laying are proof of. May they continue their good and profitable work. A. G. G.

INCUBATION TROUBLES.

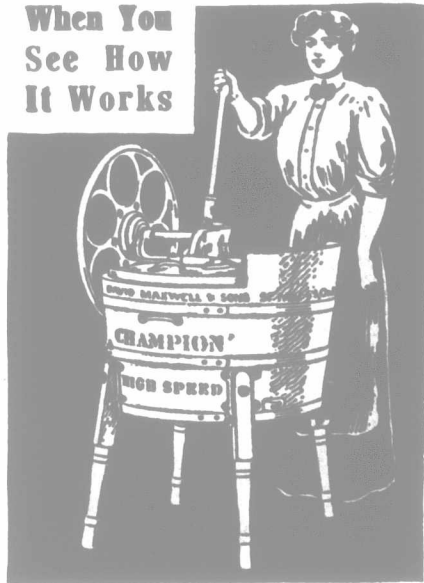
I have had an incubator and brooder for about six years. I had good results with it all along until last year. It then did not prove as satisfactory, with same care, as it should have done. Do you think a machine, used five years, should do as well as a new one? What would be good to disinfect it with? We have always had a great deal of trouble to rear the chickens. They would seem all right for first two or three days. Cleaning the brooder every day, which we have always done, we would find sometimes as many as fifteen dead under hover and in back part. We feed them on hard-boiled eggs, dry bread and oatmeal, and onion tops, with plenty of fresh drink and grass and grit. J. P.

Ans.—Your experience is not, I am sorry to say, singular. I receive many letters to the same effect as yours. I do not think a five-year-old incubator will give as good results as a new one of up-to-date pattern. Of the condition of the brooder and its fitness, you are certainly best able to form an opinion, for you can thoroughly examine its condition. A good sheep dip is as good to spray with as anything else. There is certainly a most discouraging mortality among incubator-hatched chickens every spring, and we are all trying to find out the cause or causes. Much depends, I think, upon the constitutional vitality of the breeding stock at the period the eggs are saved up for hatching. I think the breeding stock should have opportunity to run outside—when weather permits in spring—and to recover from their long term of winter artificial life and treatment. We have found that about middle of April is a good time to fill the incubator with newly-hatched eggs. This ought to bring the chickens out at or about the first week in May, which I consider the best time for a farmer to have his chickens hatched out. The chicks then have a chance to grow with the grass. Unless he has special facilities to house and keep them warm, earlier chicks are apt to be a trouble. I have also noticed that when the germs of the eggs are weak, that neither incubator nor hen will satisfactorily hatch them. Neither hen nor incubator can make a weak germ hatch out a robust chick! It is all-important, then, that the germs of the eggs should be strong. I am afraid that many of our breeding cocks and hens throughout the country are weaklings. Again, much harm is done by breeding from immature birds. A woman poultry-keeper once wrote: "I make it a rule to keep no bird after it is twelve months of age." How, and from what, did she breed? Your method of feeding—if not fed too soon after hatching—seems all right. I sincerely wish you better success next season. I regret I cannot explain more definitely. A. G. G.

TRADE TOPIC.

Thoroughpin can be cured. So read testimonials by prominent horse-owners who have used "Save the Horse," manufactured by the Troy Chemical Co., Binghamton, N. Y., whose advertisement will be found elsewhere in this issue.

When You See How It Works



You will want a "CHAMPION" Washing Machine right off. The Momentum Balance Wheel, which almost runs itself—the up-and-down stroke of the Lever, which means greatest power with less effort—the absolute perfection of the "CHAMPION"—will make you want one for your home.

"Favorite" Churn gets all the butter out of the cream. Easy to churn, too. If your dealer does not handle these home necessities, write us. 78 DAVID MAXWELL & SONS, - ST. MARY'S, ONT.

Cowan's Nut Milk Chocolate

A chocolate confection of rich milk chocolate and fresh shelled walnuts. Simply exquisite. In 1/4 and 1/2 pound cakes.

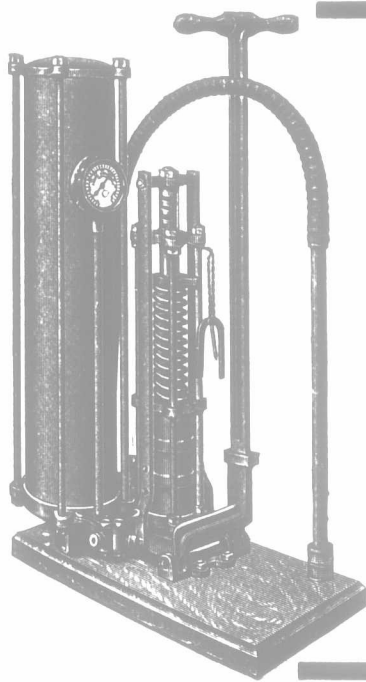
The Cowan Co. Limited, Toronto.

Agricultural Courses

Why don't you use your spare time to get a better knowledge of your farm work? We have courses prepared by professors and experts, and can give you training that would cost you hundreds of dollars to get in any other way.

- Courses by mail in—Stock-raising—The breeds and classes of horses, judging, care, etc. Agriculture—Study of the plant, soil, tillage, drainage, weeds, insects, rotation of crops, etc. Poultry-raising—Houses, incubators, classes of fowl, raising, feeding, marketing, etc. Write for full information.

CANADIAN CORRESPONDENCE COLLEGE, LIMITED Toronto, Canada. Dept. E.



BEAN MAGIC PUMP No. 9.

The easiest-running pump ever made. The wonder among spray pumps.

The pump for the orchard that is too large for a hand-pump and too small for a power-pump.

The man who operates the MAGIC PUMP is working against only one half the pressure indicated on the gauge. The spring does the rest. Pressure is important in effective spraying.

THE MAGIC GIVES THE PRESSURE.

For descriptive catalogue of this and power pumps, write us. We are the Canadian agents.

NIAGARA BRAND SPRAY COMPANY Limited Burlington, Ontario.

NIAGARA SPRAYS ARE ALSO MADE BY: Niagara Sprayer Co., Middleport, N. Y. Oregon Spray Co., Portland, Oregon. Medford Spray Co., Medford, Oregon. Bean Spray Pump Co., Cleveland, Ohio. Hood River Spray Mfg. Co., Hood River, Oregon.

NIAGARA BRAND LIME-SULPHUR SPRAY MADE IN CANADA.

The famous spray of the Pacific Coast, which has made possible the production of a clean, perfect and marketable fruit, bringing the highest prices.

- BECAUSE:—It is properly made. —Cooked so as to retain permanently its strength. —It is not a mere wash or mixture, but a perfect solution of insecticidal and fungicidal power. —It is always ready for use. —When Niagara is used thoroughly a clean and perfect fruit is assured. —This means prices, profits and prosperity.

Write for our Spray Book and prices.

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

We grow on our farm the following trees:

- Plums.....Age.... Pears.....Age.... Apples.....Age.... Peaches.....Age.... Cherries.....Age.... Have been spraying with.....


We are interested in.....

Pumps. Send full information about.....

Name.....

Address.....

PLEASE FILL IN THIS COUPON AND RETURN



PROVE IT!

Don't take our word for it. Ask us to prove to you that the

SELKIRK STIFF-STAY FENCE

is Heavier, Stiffer, Stronger. More Secure and Serviceable than any fence you have ever seen. It is the Best and Most Economical Fence to Buy, and consequently to Sell.

FILL OUT THIS BLANK AND SEND IT TO US.

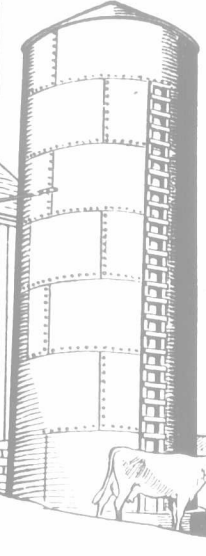
SELKIRK FENCE CO., HAMILTON, CAN.

Gentlemen,—I want to examine for myself the merits of S. S. S. Fencing and Gates. Send me a free sample piece of the fence with descriptive matter and agent's terms.

Name.....

Post Office.....Prov.....

In the ordinary cement or wood silo there is usually formed about the wall a rim of ensilage of considerable width, which is frozen and decayed, and therefore unfit for use. This waste is reduced to practically nothing and the ensilage is kept sweet and clean for the whole feeding season in the



Waterous Steel Silos

These silos are composed of heavy steel plates firmly rivetted together to be tight and absolutely waterproof and when set on a cement foundation are self-supporting. They are shipped out complete with plates rolled and punched and rivets for same, all ready for assembling. The erection can be done in any weather and is comparatively easy. Four or five men should do the work without trouble in about three days.

The initial cost of the steel silo may at first appear to be somewhat higher than the ordinary cement silo, but when you consider the fact that it takes at least three times as long to erect a cement silo, that it is impossible to work when the frost will affect the setting of the cement, and add to this the cost and time taken for hauling gravel—often a considerable item—you will see that the final costs are practically identical, and if anything in favor of the steel silo. They can be added to at any time, and if necessary, they can be dismantled and reerected at little cost. Write and let us tell you all about them.

Waterous Engine Works Co., Ltd., Branford, Can.

PROFIT, PEACE AND COMFORT



How much this means to you! Are you enjoying those blessings? If not, you are not using "THE CAPITAL SEPARATOR."

If you keep cows, those blessings in their fullness can only be obtained by using "THE EASY-RUNNING CAPITAL."

Our free catalogue will tell you why. Write to-day.

The NATIONAL MANUFACTURING CO., Ltd.

Factories: OTTAWA AND BROCKVILLE

BRANCHES: Regina, Sask. Edmonton, Alta. Moncton, N. B.

QUESTIONS AND ANSWERS.
Miscellaneous.

VITALITY OF RIBGRASS SEED—KEROSENE EMULSION—LIST OF POST OFFICES—FEEDING QUESTIONS.

1. Have a meadow off which hay was cut last summer; aftermath was not pastured not cut for seed, as it was badly infested with ribgrass. If plowed down, and put in corn or sugar beets, then plowed again and seeded to spring grain, will it grow again? How long will ribgrass seed remain in ground (if it will remain), and retain its vitality?

2. Give formula for preparing kerosene emulsion.

3. What is the name of the present Governor-General of Canada; also, who is the Premier of Manitoba?

4. Is there any list of Canadian post offices published? If so, where could one procure one, and at what cost?

5. (a) Which is the cheaper feed, oil cake at \$2.50 per cwt., or ground flax, at \$4.50 per cwt.?

(b) How would either compare with bran, at \$1.10 per cwt.? The above to be fed to milch cows. M. L. R.

Ans.—1. Better not take chances, more especially if the oats are to be seeded to clover. Do not plow the field after removing the corn or sugar beets. It is not necessary. We are not prepared to say how long the ribgrass might retain its vitality while lying in the soil.

2. Kerosene 2 gals
Rain water 1 gal.
Soap 1 lb.

Dissolve soap in water by boiling; take from fire, and, while hot, turn in kerosene, and churn briskly for five minutes. For use, dilute with nine parts water, so that the three gallons of stock emulsion will make 30 gallons of spraying mixture.

3. His Excellency the Right Honorable The Earl Grey, P.C., G.C.M.G., G.C.V.O., is the present Governor-General of Canada; the Premier of Manitoba is Hon. R. P. Roblin.

4. Yes; in the Canadian Almanac, a most useful paper-covered book of 495 pages, which contains, besides a complete list of post offices, annually revised, a wealth of other official information. Inquire at your book store.

5. It is impossible to make a satisfactory, absolute comparison, between the values of oil cake and flaxseed meal, as much depends on the ration with which they are to be combined. As a general rule, oil cake at \$2.50 per cwt., will be considerably more economical than ground flax at \$4.50 per cwt. We give the analysis of each, and also of wheat bran:

	Digestible protein	Digestible carbohydrates	Digestible other extract
Flax seed	20.6	17.1	29.0
Oil cake (old process)	29.3	32.7	7.0
Wheat bran	12.2	39.2	2.7

It is apparent that the extraction of most of its oil from flaxseed has the effect of raising the percentage of the other elements, both protein and carbohydrates. A pound of ether extract (oil) is worth about 2½ times as much as a pound of carbohydrates, and serves similar purposes in the animal system. It is impossible to institute any satisfactory comparison between either of these elements and protein, as protein serves purposes which the others cannot; and since protein is deficient in the majority of rations, a pound of oil cake may be of more value in connection therewith than would a pound of pure flaxseed. As to a comparison of oil cake and bran, it will be observed that the former contains about two and a half times as much protein, though little more net value in carbohydrates and ether extract. Having in view the laxative and diluent properties of bran, we should say it were, in nearly all cases, better value at \$1.10 per cwt., than oil cake at \$2.50 per cwt. Fifty dollars a ton is a most extravagant price for oil cake. It commonly sells around \$30.00, and used to be much cheaper than that.

GOSSIP.

AN IMPORTANT AYRSHIRE SALE.

The Glenhurst herd of 75 registered Ayrshire cattle, the property of James Benning, Williamstown, Ont., will be dispersed by auction on April 20th. This is one of the oldest and most-productive herds in Ontario, and the sale should attract the attention of breeders and dairymen from near and far. For further particulars, see notes of the herd in next issue.

J. & D. J. Campbell, of Fairview Farm, Woodville, Ont., write: "We are offering in our changed advertisement an extra-good 11-months-old red Shorthorn bull calf, sired by Golden Count, one of Canada's great breeding bulls, and his dam being a Mysie, sired by the well-known Joy of Morning (imp.), accounts for the promising qualities of the youngster. They also offer a young Strathallan cow, with heifer calf at foot, and also a few Golden Count heifers, all bred to Prince Victor, one of the toppers at the recent combination sale held at West Toronto. Prince Victor has for sire Jilt Victor (imp.), grand champion at Dominion Fair, 1907. He is out of Scottish Queen, dam of Pleasant Valley Jilt, which sold at Toronto's 1909 sales for \$2,500. Prince Victor's dam's sire was the well-known imported Royal Sailor. His dam was a Toronto champion." Thus, Messrs. Campbell's new stock bull has a concentration of the very choicest of breeding lines, as shown by standing in show-yards and high values in sale-ring. That, with first-class individual character and merit, should prove a good combination, and give satisfactory results.

REMEMBER ARTHUR JOHNSTON'S SHORTHORN SALE, MARCH 8th.

The dispersion sale of the whole herd of Arthur Johnston, Greenwood, Ont., is announced for March 8th. The sale includes about 40 females of various ages, 9 excellent young bulls fit for service, and an extra-good imported three-year-old bull, and a number of English milking Shorthorns. This fine herd, established over 40 years ago, has been kept up-to-date by frequent importations, and the breeding of high-class females of the most desirable families during all the intervening years, the very best of sires being kept in service. Mr. Johnston's long experience and acknowledged discriminating judgment, has kept his herd steadily in the first rank, and now that he has sold his farm and is retiring from business, the breeders and general farmers will have the opportunity of securing, at their own price, the fruit of his 40 years of labor. We are assured that the herd was never more excellent in individual merit, while their breeding is equal to the best in existence. There should be a grand rally at this sale, which will be conducted by Carey M. Jones, of Chicago, and, while it is hoped that good prices will prevail, the owner is prepared to make sacrifices, as all will be sold at what the people bid for them. Trains will be met, evening before and morning of sale, at Clarendon, C. P. R., and Pickering, G. T. R.

TRADE TOPIC.

5,000 FACTS ABOUT CANADA.—The public will warmly welcome the new 1910 edition of that useful booklet, "5,000 Facts About Canada," compiled by Frank Yeigh, whose writings and lectures on Canada are widely known. The popularity of the publication is shown by its sale of nearly 50,000 copies, not only in Canada, but through the Empire, and, indeed, the world. The 1910 edition contains a large percentage of new matter, under such heads as agriculture, mining, banking, trade, railways, wheat-growing, education, religions, etc., while a new feature is a budget of Empire Facts. The book is a revelation of the riches and resources of the Dominion. It is published at 25 cents a copy, by The Canadian Facts Publishing Co., 667 Spadina Ave., Toronto, Canada, or may be had from news dealers.

HIGHEST FOOD-VALUE.

**Epps's Cocoa is a treat to Children.
A Sustenent to the Worker.
A Boon to the Thrifty Housewife.**

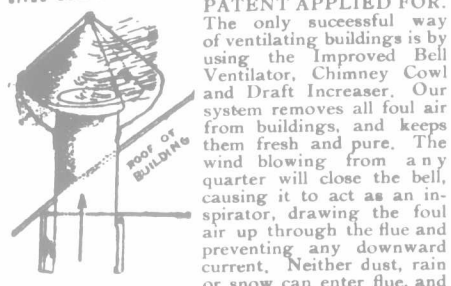
**EPPS'S
COCOA**

**BREAKFAST
SUPPER**

**In strength delicacy of flavour,
nutritiousness and economy in use
"Epps's" is unsurpassed.**

Children thrive on "Epps's."

IMPROVED BELL VENTILATOR



PATENT APPLIED FOR.
The only successful way of ventilating buildings is by using the Improved Bell Ventilator, Chimney Cowl and Draft Increaser. Our system removes all foul air from buildings, and keeps them fresh and pure. The wind blowing from any quarter will close the bell, causing it to act as an inspirator, drawing the foul air up through the flue and preventing any downward current. Neither dust, rain or snow can enter flue, and every ventilator when properly erected is guaranteed satisfaction or money refunded. If your dealer does not handle our ventilators, write us for particulars. **The London Ventilator Co. Manufacturers. Office: Room 3 London Loan Bldg. London, Ont.**

"Did you ever stop to think, my dear," said Mr. Micawber, gazing at his plate of lobster salad, "that the things which we love most in this life are the very things that never agree with us?"
"Will you be so kind," said Mrs. Micawber, "as to tell me whether you are speaking of the salad or of me, sir?"

Sir E. Chandos Leigh, the former counsel to the Speaker of the House of Commons, in a speech full of interesting literary reminiscences at the opening of a free library at Irchester, the other day, told a Thackeray story.
"I knew Thackeray pretty well," he said. "Thackeray perfectly abominated anything in the nature of flattery. I was with Thackeray one night when a man came up, and for five minutes administered to the great novelist the most fulsome flattery. When the man had gone, I said to Thackeray, 'Who is that?'"
"Thackeray replied, 'He calls himself an artist, but I think he paints as much in 'butter' as he does in oils.'"

**A VOICE FROM
NOVA SCOTIA**

**States that Dodd's Kidney Pills
Surely Cures Bright's Disease.**

Ellie J. Mirk Suffered from this Terrible Allment for Four Years, but Dodd's Kidney Pills Made Her a Well Woman.

Miscou Harbor, Gloucester Co., N. S., February 21.—(Special.)—That any remedy that will cure Bright's Disease will cure any form of Kidney Disease, has long been admitted by the medical profession, and this place furnishes one more undoubted proof that Dodd's Kidney Pills will cure Bright's Disease. For Ellie J. Mirk, well known here, had Bright's Disease, and Dodd's Kidney Pills cured her.
"I suffered for over four years from Kidney Disease, which developed into Bright's Disease," Miss Mirk states. "I had pains in head and back, and stiffness of the joints. I lost my appetite, and suffered from dizziness and shortness of breath. I was weak and languid all the time."

"I was always nervous, and could not keep my thoughts from wandering. Dodd's Kidney Pills cured me. To-day I have not one of these distressing symptoms."

Neglected Kidney Complaint develops into Bright's Disease, Heart Disease, or Diabetes. Dodd's Kidney Pills cure any and all of these. But it's easier and safer to cure the earlier symptoms by using Dodd's Kidney Pills.

GOSSIP.

Robert Hunter & Sons, Maxville, Ont., are importing from Scotland sixty head of Ayrshire cattle, which are to arrive in March. Ayrshires are cutting a wide swath in the field of popularity in these times of general prosperity, and the breeders are displaying admirable enterprise in boosting the breed.

Simmers' annual seed catalogue and cultivator's guide is now ready for distribution, and, as announced in their advertisement in this paper, will be mailed free to applicants. The J. A. Simmers seed house, 141 to 151 King Street East, Toronto, is one of the oldest in the Province, and has a wide reputation for handling high-class seeds of grain, grass, corn, root and flower seeds and bulbs; also garden tools, nursery stock, and fertilizers. Write for their handsome illustrated catalogue.

PROUSE'S CLYDESDALE SALE.

Our readers are reminded of the important auction sale of some 40 imported Clydesdale mares, fillies and stallions, the property of S. J. Prouse, to take place at the Union Stock-yards, West Toronto, on Friday, March 4th. These are a choice lot, selected for size, type and quality, such as the trade calls for. This sale will afford a favorable opportunity for buyers securing bargains, as we are assured the sale will be absolutely without reserve, and that all will go to the highest bidder. These mares should find ready buyers, as this class is much needed in the country.

SPRINGBANK AYRSHIRES.

Springbank Stock and Dairy Farm, the property of A. S. Turner, Ryckman's Corners, Ont., three miles south of the City of Hamilton, takes its place as one of the best-arranged dairy farms in Ontario, as well as the home of one of the very best herds of Ayrshire cattle in Canada. Certain it is, there are no better herds in the country, as a show herd, or as a herd of heavy producers, over 50 strong, every one in splendid condition; big, robust cows, ideal in dairy type, carrying large, well-balanced udders, and every one with large teats, well set on. Last year, the first testing was done for the Record of Performance. Five were entered, and all passed. This year, seven are running, and bid fair to all pass with a big margin. Sybella 27691, in 226 days, gave 7,305 lbs. milk that tested 4.13 per cent., as a two-year-old; as a four-year-old, she has given 60 lbs. a day, and 3,000 lbs. in 60 days. Barton Princess, as a ten-year-old, gave 9,580 lbs. milk in 331 days that tested 4 per cent. Briary gave 57 lbs. a day, 1,400 lbs. in 31 days, 7,000 lbs. in six months; test, 4 per cent. Scotland Princess, in 1 year, gave 10,184 lbs. milk, 60 lbs. in 1 day that tested 5.07 per cent.; this as a five-year-old. Jemina, as a two-year-old, gave 8,839 lbs. in 338 days that tested 4.40 per cent., and of butter-fat 395.33 lbs. Speck and Ruby, both two-year-olds, gave 7,000 lbs. in 7 months. Marigold gave 5,000 lbs. in 5 months. Canadian Princess 20108 holds the world's three-year-old record with 11,377.55 lbs. milk, and 521.91 lbs. butter-fat in 11 months; her test was 4.59 per cent. These are a few of the cows in this herd that are representative of the entire lot. There are a number of two-year-old heifers in milk that look wonderfully good, and will certainly make records that will still enhance the reputation of this great herd. All one year and over are the get of Lad of Springbank 29167, by that noted bull, Bonnie Briar, dam Queen Bess, grandam Barton Princess, above mentioned. All under one year are sired by the present stock bull, Pearlstone of Glenora, imported in dam, a grandson of that renowned cow, Edith of Lessnessock (imp.), whose milk record is 13,000 lbs. in the year. This bull is one of the great sires of the breed, always leaving a remarkable uniformity in type and great producing ability. In young things for sale are 13 yearling heifers and 7 heifer calves, daughters of the above-mentioned cows, and others equally as good; in fact, anything in the herd is for sale. Last year, twenty cows and heifers in milk, made a grand total of \$4,000, out of the wholesaling of milk alone, which speaks louder than words of the kind of dairy cattle that is offered for sale in this herd.

**UNPROFITABLE WORK
AND UNPLEASANT TOO**



But it is just as unprofitable and unpleasant to use an inferior Cultivator at any season of the year.

THE PETER HAMILTON CULTIVATOR is constructed so that the front or back teeth raise or fall independently of each other, following the unevenness of the ground and cultivating to an even depth.

No catching of the teeth in furrows. Easy draft. Comfortable seat. Lever that controls the teeth perfectly. A pleasure to operate and perfect work. Try one this spring.

**The PETER HAMILTON COMPANY, Limited
Peterborough, Ontario.**

DO IT NOW!!!

Now is the time to plan for the coming season's work, and in order that your plans may be well founded, you must have

Simmers' Seed Catalogue for 1910

It contains a fully illustrated and descriptive list of up-to-date varieties of **Field Seeds, Garden and Flower Seeds, Plants, Bulbs, Garden Tools, etc.** Also a great deal of valuable information that will assist you in making up your requirements in these lines.

We give you the benefit of our long experience in the seed business, extending over more than half a century, and you can rely on getting just what you order, and everything of the very best quality obtainable.

Write for our 1910 Catalogue to-day.

**J. A. SIMMERS, Toronto, Ontario.
SEEDS, BULBS, PLANTS.**

CALDWELL'S MEAL

Non-medicated.

(NEW PROCESS)

For Cattle, Horses, Sheep and Hogs.

Is a fattening and nourishing feeding meal for all classes of stock. Its most important element is derived from **pure heavy cone syrup** (not a particle of sugar-beet molasses or pulp enters into its composition). When substituted for part of the ordinary food a perfect balanced ration is formed, the aim of every intelligent feeder. **Manufactured only by**

A. C. CALDWELL, EAST TORONTO.

PRICE, FREIGHT PREPAID, \$34.00 PER TON.



Springbank Ayrshires!

Canada's leading herd of Record-of-Performance Ayrshires. Big records, big cattle, big udders and big teats. Over 50 head to select from: 13 yearling heifers, 7 yearling calves. Anything in the herd is for sale. All in good condition. **A. S. TURNER, RYCKMAN'S CORNERS, ONT. 3 Miles South of Hamilton.**

At a sale of Percherons held on Feb. 8 and 9, by H. G. McMillan & Sons, at Sioux City, Iowa, 93 head were sold for an average of \$511.25. The 39 stallions averaged \$546, and the 54 mares \$486. The highest price was \$950, for a three-year-old stallion, the sale indicating a very even range of prices.

Attention is directed to the new advertisement of The Peter Hamilton Cultivator, manufactured by The Peter Hamilton Company, of Peterborough, Ont. Spring will soon be with us, and the needed implements for cultivation should be secured in good time, as the seeding season may come surprisingly soon.

EWING'S Seeds Pay

Even if someone offered them free it wouldn't pay you to sow seeds of poor or doubtful quality.

Your crop should be worth 10 to 100 times the cost of the seed. Inferior seed will easily lose you half the crop, or from 5 to 50 times the cost of reliable seed.

Economizing on seeds is most expensive economy.

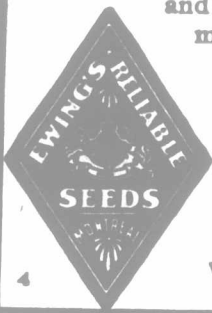
If you sow Ewing's seeds and the weather is anyway reasonable, and you give them a fair chance in the way of soil and tillage, you can depend on FULL CROPS of A1 quality—crops that will pay handsomely for the land used and the work done as well as for the small investment in the seeds themselves.

Ewing's Seeds have proved their reliability by forty years of bumper crops.

Insist on Ewing's. If your dealer hasn't them buy direct from us.

Our big Illustrated Catalogue is Free—write for it to-day.

Wm. Ewing & Co., Seedsmen, McGill St., Montreal.



THE CANADIAN INDEPENDENT TELEPHONE ASSOCIATION.

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The Canadian Independent Telephone Association will furnish the organizers of new systems or operating companies with advice, assistance or information on all subjects relating to the construction, operation or maintenance of telephone plants. In other words, if you are thinking of establishing a telephone system in your locality, or if your company is not operating under conditions which are satisfactory, you have only to state your case to the Association, and it will assist you in every way possible.

The Canadian Independent Telephone Association exists for the purpose of removing the evils of monopoly in telephones, and assisting the people, more particularly in the rural districts, to secure an unrestricted service by the establishment of systems under local ownership and control.

If you are interested in the organization of a local, municipal or rural telephone system, and require advice or assistance, write to:

FRANCIS DAGGER, Secretary - Treasurer,
Executive Offices: 21 Richmond Street, West, Toronto, Ont.

Agents Wanted!

ACTIVE SUBSCRIPTION AGENTS FOR

**THE FARMER'S ADVOCATE
AND HOME MAGAZINE**
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The Farmer's Advocate, London, Ont.

SEED POTATOES

A Change of Seed is Always Advantageous.

I am offering 5,000 bushels pure-bred seed potatoes grown from imported English, Scotch and American seed. Extra First Early, First Early, Second Early, Main Crop, Late Main Crop. For prices, etc., address:

W. P. NILES, WELLINGTON, ONTARIO
Grower of Seed Peas, Beans, Potatoes, Oats and Barley.

QUESTIONS AND ANSWERS. Miscellaneous.

NITRO-CULTURE.

Is there any process which you would recommend putting alfalfa through before sowing?

H. S. P.
Ans.—Treatment with nitro-culture is advisable if the seed is to be sown on a farm where neither alfalfa or sweet clover has ever previously grown. Enough to treat a bushel of seed may be obtained from the Ontario Agricultural College, Guelph, for 25 cents. Full directions will accompany.

FILLING UNDER FLOOR.

I have a cow stable which I want to put a concrete floor in this summer, and it has to be filled up quite a lot. What is the best to fill up with, clay or sand? Will sand be as good to cement on as clay? Some say sand will not be solid enough, and will move, and get hollow under floor, and also takes moisture out of concrete so it will not last. What is your opinion about it?

E. A. Z.
Ans.—Sand alone is not recommended for filling under cement floors. Gravel, however, mixed with sufficient sand to fill up the interstices, and well tramped or pounded, and afterwards liberally sprinkled with water, is an ideal foundation on which to spread concrete.

BASEMENT WALL AND FLOOR— MATERIALS AND PLAN.

1. How much gravel and cement would be required for wall and floor under barn 26 x 50 feet—no stone fillers—walls to be one foot thick and eight feet high?

2. How many windows would be needed?

3. Would basement of above dimensions be large enough to stable six cows and four horses, and provide space for two box stalls, and root cellar?

4. Could you give best plan for stables, box stalls, etc., in basement of size stated?

E. C.
Ans.—1. If concrete for wall were mixed 1 to 8, and for floor 1 to 6, and four inches average thickness, about 14 cords of gravel and 60 barrels of cement would be required.

2. Seven on each side would answer. Better more than fewer.

3 and 4. By having stable 13 or 14 feet from back to front along one side of the barn, quite sufficient to accommodate horses and cattle, there would be room left for a narrow passage in front; two box stalls 8 x 12 feet, and a space of 8 x 24 feet for roots.

CATTLE SCOURING.

What is the cause of my cattle scouring? First one will take it, then another, until it has gone through all my beef cattle. They will be pretty bad for a few days, then they improve a little, but still keep rather loose in the bowels. Now the store cattle are taking it in the same way. I thought at first that the feed was the cause, but have come to the conclusion that it is contagious, as I understand several other herds in the neighborhood are in the same way affected. Have been feeding silage about 50 lbs. daily, in two feeds, 3 lbs. meal, mixed, barley, oats and peas, and a few turnips at noon, and seven or eight pounds of well-cured second-cut alfalfa. After the morning and night feeding, when they have their silage cleaned up, there is some oat straw put in mangers, but very little of it is eaten, and it is thrown out for bedding before the next feeding. I might say that the feed is all good. My corn was well-eared and well-matured, and went into the silo without frost. The store cattle that are affected are getting silage and straw, and a few roots at noon, but no meal or alfalfa.

A. M. G.
Ans.—You are probably correct in surmising that it is a mild epizootic affection. We have not infrequently known of such attacks running through a herd of cattle without discernible cause in feeding or environment. If your silage were sour, we might be tempted to think it responsible, since you are feeding quite a large quantity of it per day, and this, together with the roots and alfalfa, would have a laxative effect. However, as the silage is from well-matured corn, it is probably not the cause of the trouble. It would be well to decrease the amount of feed for a day or two, then increase gradually, when, probably, the trouble would cease.

GOSSIP.

Israel Groff, Elmira, Ont., writes: "I have just sold to W. H. English, of Harding, Man., the three-year-old Short-horn heifer, Red Bessie 2nd. This is one of the best show propositions that I have seen in a good many days, and in such good hands, will, no doubt, be heard from later. I have still a very fine young Crimson Flower bull that will develop into a grand stock bull; has a grand coat of hair, and a wealth of flesh. Recent sales of Berkshires have been to John French, Salem, one boar; to John Stangey, one boar; to George Reist, of Floradale, one sow. There never was a time when good stock was in better demand than at present."

A. M. McPherson, Rocklin, N. S., writes: Not only is "The Farmer's Advocate" a great advertising medium for those who have stock to sell, but to the buyer as well. The directors of Rocklin Agricultural Society have been purchasing stock for the use of the society for several years from breeders who advertise in "The Farmer's Advocate," and in all cases with entire satisfaction. Several pure-bred Shropshire rams were purchased from John Miller, Brougham, Ont., the last being a very fine lamb, that, if anything, was better than Mr. Miller's description. They have also purchased from D. M. Watt, St. Louis Station, Quebec, the prizewinning Ayrshire bull, Pearlstone of St. Louis, sired by Pearlstone of Glenora 18510, dam Lily of Kelso 13045. This bull, shown as a calf under one year, was first at Sherbrooke, Huntingdon, St. Louis, and Brockton, Mass., fall of 1909, and is a strong, robust animal of true dairy conformation, and is bound to leave a lasting impress upon the dairy herds in the district controlled by the Rocklin Agricultural Society. The directors were very much pleased with the treatment they received from Mr. Watt, and the good judgment he displayed in selecting Pearlstone of St. Louis for them, thus avoiding the expense of sending a man all the way to Quebec to purchase what they wanted.

IMPORTED CLYDESDALES AT AUCTION.

S. J. Prouse, Ingersoll, Ont., announces in his advertisement in this paper, that on March 4th, he will sell at auction, at Union Stock-yards, West Toronto, his new importation of about 40 imported Clydesdale mares, fillies and stallions, together with a few home-bred mares and colts. In the sale are the following: The big, good brown filly, Dragon Fly (Imp.), rising three, sired by Lookout, by Royal Carrick, dam by Royal Reward. Dora Stewart, a good four-year-old mare, in foal by Scotland's Pride, by Hiawatha; her sire is Baron Lawrence, by Baron's Pride, dam Dora, by Knight of Glamis. Lambton Princess, another good mare, in foal to Lord Powis, by Monieriff's Marquis, and having for sire the good horse, Prince Thomas, which sold for \$4,500 at public auction. A beautiful bay filly, rising four years old, was sired by Golden Promise, by Golden City. Remembrance, filly, rising three, by Memento, by Hiawatha. Shields' Baroness, another big brown three-year-old, by Baron Bogton, dam Maggie of Shields, by Captain Alexander, by Prince Alexander, by Prince of Wales. There is in this importation an extra-good lot of colts and fillies; they are big, and the thing that people are wanting. In the lot are a few stallions, one rising three, by Sir Hugo; another pair by St. Mark, by Hiawatha. At this sale there will be bargains, as they will be sold without reserve.

TRADE TOPIC.

The "Capital Separator" is manufactured by the National Manufacturing Company, Limited, whose factories are situated at Brockville and Ottawa, Ont. At Brockville (the Cossit Company plant) are manufactured the Capital Separator, fanning mills, farm scales, tread powers, threshers, butter-workers, etc., while the Ottawa establishment manufactures the New Empress Steel Range, the Sovereign Cast Range, Oak Heaters, furnaces, etc., and the company claims that the success attained, which has exceeded their expectations, is the surest gauge, and the best criterion of efficiency.

BOVRIL

Not Medicine

If you feel not quite up to the mark, the chances are you need BOVRIL—not medicine.

Bovril, which contains all that is good in Beef, will build up your strength and tone up your system.

A little added to gravies, chowders and soups, not only adds nourishment, but gives a zest which tempts and satisfies the most capricious appetite.

5-12-09

Northern Ontario

The forest and mineral wealth of Northern Ontario has attracted many people from all parts of the civilized world.

One ninth of the world's reported output of silver in 1908 was taken from Ontario mines.

New discoveries of undoubted richness are being constantly reported from sections far distant from the far-famed Cobalt. Yet a more certain reward is insured to the settler who acquires for himself 160 acres of the rich agricultural lands now open for settlement and made accessible through the construction of railways and Colonization Roads.

The fertility of the soil is unsurpassed. The timber is in demand at a rising price. Mining, railway and Colonization Road construction, lumbering, etc., afford work in abundance to those who have not the means to remain on their farms continually. These also provide a market for far n produce at prices unequalled anywhere.

Cochrane the terminus of the T. & N. O. Ry. on the G. T. P. Int. Continental Railway, now under construction, is in the same latitude as the southern part of Manitoba, and 800 miles nearer the seaboard.

That the experimental stage is past is clearly demonstrated. The country is rapidly filling up with settlers from many of the other Provinces, the United States and Europe.

For information as to terms of sale, homestead regulations and for special colonization rates to settlers and for settlers' effects write

D. SUTHERLAND, The Director of Colonization,
Parliament Buildings, TORONTO.
HON. J. S. DUFF,
Minister of Agriculture.

Sherlock-Manning Organ

IN THE HOME

Is a benefit to everyone. Such an instrument is an incentive to those who can play to make better musicians of themselves. Its beautiful tone delights the ear of all who hear it.

SHERLOCK-MANNING ORGAN CO.
LONDON. ONTARIO.



High Grove Jerseys and Yorkshires. No better blood in Canada. Present offering: Two young bulls, 12 and 20 months old, respectively; females all ages. Prices and all information on application.
ARTHUR H. TUFIS, P.O. Box III, Tweed, Ont.

QUESTIONS AND ANSWERS. Miscellaneous.

PROBABLY A FIXTURE.

Farmer sold farm. Does dinner-bell on house belong to purchaser of farm, or can it be sold as chattels? It was not mentioned in bargain. J. A. B. Ontario.

Ans.—It is probably so attached to the house that it could not be removed without injury to the building, and, therefore, must be regarded as a fixture, and hence not removable or salable by the vendor of the farm as a chattel. Certainly, if not removed before possession taken by the purchaser of the farm, it would belong to him.

BOOK ON BEES.

Please advise me the best book and periodical on bees, for a beginner.

L. W. P.

Ans.—A. B. C of Bee Culture, by Root; price, through this office, \$1.50, postpaid. The Honey Bee, by Langstroth, is also excellent, better in some ways than the other; price, through this office, \$1.60, postpaid. You will make no mistake by taking either. As to periodicals, the Canadian Bee Journal, Brantford, Ont., and Gleanings in Bee Culture, Medina, Ohio, are the first two we would suggest. Sample copies would, doubtless, be sent on request.

YOUNG PIGS UNTHRIFTY—GROWING SUGAR CANE—PREPARING FOR CORN.

1. I have a litter of nine young pigs, born December 1st, that are not doing well. They seem to be pot-bellied, and do not grow. I am feeding them shorts and oil cake soaked, along with some skim milk, twice a day, and cut mangels at noon. How much skim milk and shorts should they get, and how much oil cake? I weaned when about seven weeks old, and seemed all right then, except two little titmens. Please give a suitable way of feeding them to make growth.

2. Please give instructions how to grow sugar cane for dairy cows for full feeding. How much seed is required for an acre, and how is it sowed; also price of seed?

3. Have a field of about six acres of rye, sown on light, sandy loam, that I would like to get in shape for corn next year. It has been cropped for some time, and not in very good shape to seed down. I was thinking of sowing some clover seed this spring and plowing down as soon as rye is harvested, and sowing buckwheat to plow down late in the fall and applying manure in winter, and put corn on the field in spring. Can you suggest a better plan. I will not have very much manure for the field.

H. M.

Northumberland Co., Ont.

Ans.—1. Feeding is only one part of the care. See that the little pigs have a warm, dry place in which to sleep and room to run around. Try this plan of feeding shorts: Put proper amount of shorts into a pail, pour on boiling water, stirring meanwhile, until the shorts are all moistened, and about the consistency of thick porridge. Pour on what milk is available and again stir well. Feed immediately if not too hot. For the starting of little pigs, warm food, partially cooked, is very palatable and helpful, especially in cold weather. Feed according to appetite, giving only what will be cleaned up in a few minutes, but yet as much as will satisfy. Drop the oil cake for a time, and when its use is started again, give only one part to four of shorts. It is not especially needed when skim milk is being fed.

2. Sow in drills 40 inches apart, about the 10th of June, using ten pounds of seed per acre. Cultivate as for corn, giving special attention to first hand hoeing, as sugar cane makes a weak start. Seed can be got from seedsmen at 7½ cents per pound, in quantities of ten pounds and over.

3. Would strongly recommend instead, giving liberal seeding of clover, and after rye is cut, allowing clover to grow without being pastured until about May 10th of following spring, applying manure on the surface in winter. Just before planting corn, plow and work fine.

SHORTHORNS AT AUCTION

ON

Friday, March 11th, 1910



E. W. ROBINSON, Markham, Ont., will sell by auction

30 Head of Shorthorns

All Scotch—including cows, 2-year-old and yearling heifers.

Some cows with calf at foot. Also the imported Duthie-bred bull, Royal Fancy (93217), a noted stock bull. The families represented in the sale are: Broadhooks, Jilt, Lady Dorothy, Roan Lady, Jessaminé, Bellona.

FOR CATALOGUE AND FULLER PARTICULARS ADDRESS:

ED. W. ROBINSON, Markham, Ont.

VASELINE IN TUBES

Vaseline Camphor Ice

Heals chapped hands, cracked lips and skin.

White Vaseline

Invaluable internally for coughs, colds, sore throat, croup.

Capsicum Vaseline

Better than mustard plasters; does not blister.

Borated Vaseline

A valuable remedy for catarrh.

Mentholated Vaseline

Allays neuralgic pains, nervous headache; cold in head.

Camphorated Vaseline

Eight per cent. gum camphor; for rheumatism, gout, etc.

Carbolated Vaseline

Best antiseptic dressing known.

Vaseline Oxide of Zinc

Quickly heals eruptions, sores and wounds.

Pure Vaseline

Known world wide as the best and safest family remedy.

OUR FREE VASELINE BOOK

Details the special merits of each Vaseline preparation and gives directions for its proper use. Send us your name with street address, mentioning this paper, and we will mail you a copy, postage prepaid.
CHESEBROUGH MFG. CO. (Cons'd), 379 Craig St. West, Montreal

Only requires 1 man

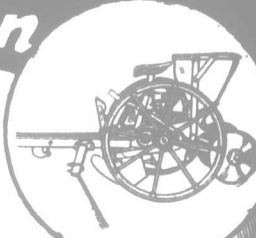
Lighter Draft, Better Results

The Aspinwall No. 3 Potato Planter is not a two-man machine. It only requires one man, saving you the extra man's wages. It is lighter draft, too. And will plant one-third faster. No other potato planter can compare with it in accuracy. The Aspinwall No. 3 drops over 99 per cent. good. And does it without slightest injury to the seed. We've put seed through the planter over fifty times and it produced as good results as seed planted by hand. No change of pickers required for different sizes of seed or different distances of planting.

Get our catalog F2 explaining detailed construction of Aspinwall No. 3, which is made by largest makers of potato machinery in the world.

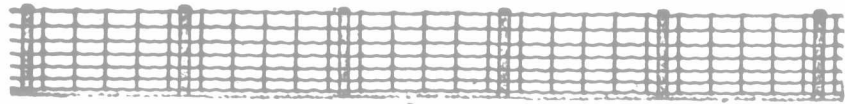
THE ASPINWALL MANUFACTURING CO. 2
Jackson, Mich. and Guelph, Ont.

Aspinwall No 3 Potato Planter



Please Remember to Mention "The Farmer's Advocate" When Writing

How Frost Fence Saves One-third in Posts



The new Frost Fence is the strongest in Canada. It can be safely stretched tighter than any other.

And because of that, it saves about one-third in Fence Posts. Just think what that means to you. And tests are proving this to be accurate.

You see, we have at last arrived at a correct solution of Canadian Fence requirements. And we didn't arrive here by guess-work, nor say-so, either. It took years of experimenting, studying and tests.

Make Our Own Wire

You know, nearly every Wire Fence ever put up in this country has given up its life from 12 to 15 years sooner than a Wire Fence should. Although that very same grade of Wire, and that same thickness of Galvanizing, has made good in other places.

Our researches have proven that the real cause of failure is nothing short of extreme climatic changes in Canada.

The Wire formerly used for the Frost Fence was made under our own specifications. It always gave better service than any other Fence in Canada. But it could not constantly overcome this destructive Canadian Climate.

So we now Make and Galvanize our own Wire. Frost Wire cannot be affected by that enemy which ruins other wire.

And we are the only exclusive Fence people in Canada who Make Wire.

Rusts Out Life

That climatic business which we were telling you about simply rusts the very life out of the Wire's Galvanizing.

Although two-thirds of the life of a Wire Fence depends upon Galvanizing, that on nearly every Fence in Canada is too thin.

Galvanizing won't adhere permanently to greasy, scaly Wire, will it? That grease and scale will drop off some time, and away goes your galvanizing.

But the Frost Fence is Galvanized about 100 per cent. thicker than most Fence.

Because every speck of grease and scale has been removed from Frost Wire by three "Cleansing" processes.

This leaves the surface as clean as a pin. The Zinc not only spreads over the surface, but it goes into the Wire, becoming a part of the Wire itself.

A poorly-cleaned surface is one reason why nearly all Wire is unfittingly Galvanized for Canadian purposes.

But perhaps the principal reason is because Zinc costs four times more than Wire. For this reason, much Wire is wiped almost clean of its Galvanizing during the surface-smoothing process.

Frost Galvanizing will fight off the rust for 12 or 15 years longer than any other Wire in this country.

Principal Reason

The principal reason why the Frost Fence will save one-third in Posts is just this:

The Coils in the Frost Fence act exactly like a Spring. When severe Canadian weather changes cause the Frost Fence to contract, these Frost Coils "give" their surplus. But nearly all other Fence will snap.

And when expanded, these very same Frost Coils "take in" that surplus. This, instead of letting the Fence sag, lose its shape and become unsightly. And no matter how often contracted or expanded, these Frost Coils always act the same.

Write for free booklet and samples.

The Frost Wire Fence Co., Ltd.
Hamilton, Ontario. 22
Agents Wanted



Frost Fence

COOPER'S FLUID

60 Per Cent. Pure Cresol.

To still further increase the enormous popularity of this BEST OF ALL DIPS, LICE KILLERS or DISINFECTANTS, we offer to all breeders for a limited period only, an IMPERIAL GALLON CAN AT \$1.50, EXPRESS PAID. This offer enables stock-owners everywhere to obtain a disinfectant that is superior to any for the cure of ALL PARASITICAL DISEASES OF STOCK, FOR ABORTION, MANGE, RINGWORM, LICE, GREASE, ECZEMA, ETC.

Sole manufacturers:

Wm. Cooper & Nephews
Toronto, Ont.

Please Remember to Mention "The Farmer's Advocate" When Writing

QUESTIONS AND ANSWERS. Miscellaneous.

BASEMENT STABLE PLAN.

I have been a reader of "The Farmer's Advocate" for the last year, and may say that I am more than delighted with your paper. I am now preparing to build a bank barn, 40 x 60 feet. Will you kindly let me know the best and most convenient way of dividing basement for stables, so as to have room for ten horses, six cows, a few box stalls, some calves, and a roomy open shed, with stanchions for tying in open shed.

C. A. M.

Ans.—The following is one plan among several that might be suggested. On one side have the horse stable, heads to center, 17 x 50 feet. On the opposite side, beginning from the same end, place the cow stable, with room for four calves, 17 x 35 feet. This leaves a feed alley between horses and cattle of six feet, and at the end of horse stable room for two box stalls about 10 feet square, the remaining space, 20 x 25 feet, answering for shed.

BUCKWHEAT FOR GREEN MANURE — PERMANENT PASTURE — CORN FOR LAMBTON COUNTY.

1. I have a field in poor condition. Am thinking of sowing it with buckwheat, and afterwards plowing it down to sow fall wheat. I thought by doing this it would kill some of the thistles and enrich the ground, as I have not enough barnyard manure to do it all. How much buckwheat should I sow to the acre, and what is it worth per bushel?

2. I have a fallow of five acres to be seeded to permanent pasture. It is a clay loam soil; will sow a crop of barley. What grass seed should I use to get a good stand of grass?

3. What variety of corn does best in the part of Ontario in which Lambton County is situated, including both grain and stalks?

L. H.

Ans.—1. Five pecks per acre would be a fairly liberal seeding. It is being quoted in the market reports (Toronto) at 52c. to 53c. a bushel. Better to sow plenty, as the extra cost of an additional peck or two is slight.

2. Orchard grass, 4 lbs.; meadow fescue, 4 lbs.; tall oat grass, 3 lbs.; timothy, 2 lbs.; meadow foxtail, 2 lbs.; alfalfa, 8 lbs.; alsike clover, 1 lb.; white clover, 1 lb.; making a total of 25 lbs. of seed per acre. Sow with a very light nurse crop of, say four pecks of barley. This is the mixture recommended by Prof. Zavitz, with a little extra alfalfa included.

3. White Cap Dent, small variety, would probably be the best. Among the flint varieties, the Longfellow would be very suitable. For ensilage purposes, an early strain of the variety called Early Learning, would do well.

GOSSIP.

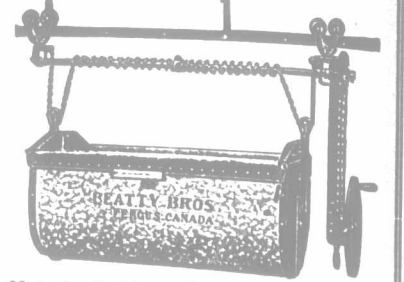
Through the Executive of the Guelph Fat-stock Club, we are informed that a choice selection of pure-bred Shorthorn and Hereford cattle will be sold on March 2nd, in the Winter Fair Building at Guelph. The cattle are young, with all their usefulness before them, and the breeding of many of them is rich in the blood of the champions at the large exhibitions of recent years. The females are the sort that will add credit to any herd. The bulls are numerous, well-bred, and many of them of the herd-header sort, because of their quality and breeding. The cattle will be presented in the very best possible form for the buyer, not overloaded with fat, but in real nice condition to go on and make gains in the buyer's hands. By attending this sale, you will be in a position to secure fresh blood, Scotch blood of exceptional strength in productions from leading breeders of the country. Toward the advancement of improved live stock, the Department of Agriculture pay the freight on all animals shipped to points in Ontario. If you are in need of a young bull, or a few females, arrange to be in Guelph on March 2nd, and secure them at your own prices. For catalogues, or any information, apply to J. M. Duff, Secretary, Guelph, Ontario.

HORSE OWNERS! USE

**GOMBAULT'S
CAUSTIC
BALSAM.**
A safe, speedy and positive cure.
The safest, Best and Quickest
ever used. Removes all blemishes
from Horses. Is possible to
produce scar or bluish. Read
for descriptive circular.
THE LAWRENCE-WILLIAMS CO., Toronto, Ont.



THE "BT" LITTER CARRIER



Note the double purchase in lifting and the simplicity in construction.

No machine on the farm is used as many days in the year, or saves as much hard, disagreeable work as a Litter Carrier. A "BT" can fill, wind up and push out in a "BT" LITTER CARRIER and four barrows of manure with ease, no matter how much mud or snow there is in the yard. The manure can then be dumped into a wagon or sleigh, and put directly on the land, with very little if any more labor and time than is required to pile it in the yard with the old method, where the greater part of the fertilizing value of the manure is wasted.

Write for free catalogue showing best method of erecting Litter Carriers, and telling why you should buy a "BT" LITTER CARRIER.

BEATTY BROS. FERGUSON, ONT.
We also build Steel Stalls and Stanchions and Hay Carrier Goods.

"SAVE THE HORSE" SPAVIN CURE



WAR DEPARTMENT.
Office Purchasing Commissary U. S. Army,
Saint Louis, Mo., Nov. 17th, 1908.

Troy Chemical Co., Binghamton, N. Y.
I have great faith in your medicine. I cured a bad tendon on a horse which had been fired and seemed beyond all hope. I also cured a spavined tendon in another horse within two weeks.

CAPTAIN J. N. KILIAN, 3d & Olive Sts., Commissary U. S. Army, FREEPORT FIRE DEPARTMENT.

Troy Chemical Co., Binghamton, N. Y.
Freeport, N. Y., Nov. 29, 1899. I purchased check for bottle "Save-The-Horse."

Every horseman around here thought horse was incurable, but don't think so now. Here is what I have done with "Save-The-Horse," and some of these cases were cured two and three years ago, as you know, and are cured to-day. In fact, I am not afraid to undertake any case without the guarantee.

The first case was a gray mare with bone spavin, over three years' standing. So lame everyone thought she would never go sound again. In six weeks' time she did not take a lame step. Let her to the Freeport Golf Club every week day.

The next case was a fine blooded horse with ringbone, belonging to a friend. In two months' time he did not take a lame step. Also cured a Polo Pony who was hardly able to get out of the stable, both hind legs affected, with the worst bone spavin I ever saw. Bought him for ten dollars, and everyone said I would have to saw off his legs and have new ones made. The whole lot was affected. He had been fired and blistered three times. I used "Save-The-Horse," and in two weeks' time you would not know that he had ever been spavined, except for the marks of the firing iron. Have also cured a fine saddle horse of thoroughbred. Will be glad to see anyone regarding these cases. CARL DARENBERG, \$5.00 a bottle, with legal written guarantee or contract.

Send for copy, booklet & letters from business men & trainers on every kind of case. Permanently cures Spavin, Thoroughbred, Ringbone (except low), Curbs, Splint, Capote, Hock, Windpuff, Shoe Bout, Inflamed Tendons & all Lameness. No scar or loss of hair. Horse works as usual. Dealers or L. S. P. paid. TROY CHEMICAL CO., 148 Van Horn St., Toronto, Ont., and Binghamton, N. Y.

Fistula and Poll Evil

Any person, however inexperienced, can readily cure either disease with Fleming's Fistula and Poll Evil Cure — even bad old cases that skilled doctors have abandoned. Easy and simple; no cutting; just a little attention every fifth day — and your money refunded if it does not cure. Cures most cases within thirty days, leaving the horse sound and smooth. All particulars given in Fleming's Vest-Pocket Veterinary Adviser. Write us for a free copy. Ninety-six pages, covering more than a hundred veterinary subjects. Durable bound, indexed and illustrated. FLEMING BROS., Chemists, 76 Church St., Toronto, Ontario.

Young Clydesdale Stallion For Sale — Coming 3 years old in the spring, Windham King (9250); dam Lily Johnston (imp.) [13665]; sire Kilmacolin Duke (Imp.) [8636] (13036). Will be sold worth the money. Address: ROBERT J. HERON, Windham Centre, Ont. Close to M. C. R. station.

Self-help is the secret that makes man and woman Most worthy of Heaven, most noble on earth. —Eliza Cook.

OWNERS! USE GOMBAULT'S CAUSTIC BALSAM.
 To, speedy and positive cure of all sores, ulcers, and other ailments of the horse. Best BLISTER used. Remove all bandages. Horses. Impossible to see scar or blister. Send descriptive circulars. GOMBAULT'S BALSAM CO., Toronto, Can.

"BT" LITTER CARRIER



is in lifting and the instruction.
 is used as much hard Litter Carrier. A and push out in a LITTER four barrows matter how much in the yard. The mped into a wagon on the land, with or and time than is e yard with the old r part of the ferti- e is wasted. gue showing best Carriers, and tell- "BT" LITTER

ERGUS, ONT.
 ls and Stanchions

SPAVIN CURE



MENT.
 y U. S. Army,
 us, Mo., Nov. 17th, 1909.

I cured a bad tendon on d beyond all hope. I also use within two weeks. Comissary U. S. Army. PARTMENT

nd check for bottle. "Spare- ere thought horse was in- is what I have done with cases were cured two and cured to-day. In fact, I did not take a lame step- week day.

se with ringbone, belong- did not take a lame step- ily able to get out of the worst bone spavin I ever rone and I would have ade. The whole hock was ed three times. I used time you would not know for the marks of the ring- so of thoroughpin. Will es. CARL DARENBERG, granaries or contract. rmanently cures Spavin, ewl, Curb, Splint, Capped ees & all Lameness. No Dealers or Exp. Sold, orn St. Toronto, Y.

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rienced, ease with
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 killed dozens and simple; no on every fifth dead if B even in thirty days smooth.

hemists to, Ontario

llion For Sale - Coming 3 King (9250); dam e Kilmacolm Duke d worth the money. RON, Windham station.

at makes man
 most noble on
 -Eliza Cook.

Imported Clydesdales at Auction

AT UNION STOCK-YARDS, WEST TORONTO
FRIDAY, MARCH 4, 1910

A NEW IMPORTATION OF ABOUT

Forty Registered Clydesdale

MARES AND FILLIES AND A FEW STALLIONS

Specially selected for superior size, breeding and quality. Sired by such noted horses as Royal Reward, Look Out, Hiawatha, Baron Lawrence, by Baron's Pride, by Baron Bogton, by Baron Buchlyvie St. Mark, by Hiawatha, etc. An extra good lot of colts and fillies, and mares in foal, of the stamp required in Canada. There will be bargains in this sale, as all will be sold without reserve.

Terms of sale: Cash or bankable paper.



S. J. Prouse, Ingersoll, Ont.

QUESTIONS AND ANSWERS. Miscellaneous.

ORCHARD QUESTIONS—FEEDING.

Have an apple orchard on and at the bottom of sand bank along lake shore, trees nearly full size, those at the bottom being very thrifty, but we do not get much fruit, and that is wormy and scabby. We are buying a sprayer, and intend using it this spring, which will, no doubt, remedy that part of it.

1. Would like to know what would be the best fertilizer to use, both on sand bank and at the bottom—ashes, lime, or barnyard manure, or both, and about what quantity?

2. Also some of the trees, particularly the larger ones at the bottom, are shy bloomers. Could we do anything to cause them to blossom more freely, and what?

3. Am feeding the following mixture of chop to fattening cattle and fresh milk cows: Two parts oats, 2 parts barley, 1 part corn, with an equal quantity (in bulk) of bran, with clover hay as bulk of coarse feed. Do you consider it a fairly well-balanced ration, or would you advise mixing oil cake with it, and how much, at \$2.00 per cwt. J. W. A.

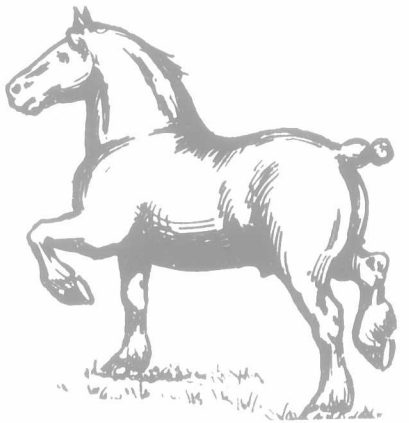
Ans.—1. Without seeing the orchard or knowing more about it, we can scarcely do otherwise than speculate concerning the treatment it would be best to give it, but the chances are it will be wise to fertilize it rather liberally with wood ashes, say fifty or sixty bushels per acre. A light coat of barnyard manure would probably also be of benefit, especially to the higher part. It is taken for granted that a cover crop will be grown each year, to be plowed under in the spring. This, if it be a leguminous crop, will add nitrogen taken from the atmosphere. It is possible that some home meal might be applied with profit, besides the ashes.

2. It may be that your system of pruning is at fault. Perhaps you are cutting out each year too much of the bearing wood. Considerable depends, too, on the time of pruning. Try June.

FREE TO YOU—MY SISTER



yourself at home, easily, quickly and surely. Remember, that it will cost you nothing to give the treatment a complete trial; and if you should wish to continue, it will cost you only about 12 cents a week, or less than two cents a day. It will not interfere with your work or occupation. Just send me your name and address, tell me how you suffer, if you wish, and I will send you the treatment for your case, entirely free, in plain wrapper, by return mail. I will also send you free of cost, my book—"WOMAN'S OWN MEDICAL ADVISER" with explanatory illustrations showing why women suffer, and how they can easily cure themselves at home. Every woman should have it and learn to think for herself. To Mothers of Daughters, I will explain a simple home remedy. It cures all, old or young. Thousands of women have cured themselves with my home treatment which speedily and effectually cures Leucorrhoea, Green Sickness, and Painful or Irregular Menstruation in Young Ladies. Plumpness and health always result from its use. Wherever you live, I can refer you to ladies of your own locality who know and will gladly tell any sufferer that this Home Treatment really cures all women's diseases and makes women well, strong, plump and robust. Just send me your address, and the free ten days' treatment is yours, also the book. Write to-day, as you may not see this offer again. Address: MRS. M. SUMMERS, Box N. 821. WINDSOR, ONT.



FREE TO YOU AND EVERY SISTER SUFFERING FROM WOMEN'S AILMENTS.

I am a woman.
 I know woman's sufferings.
 I have found the cure.
 I will mail, free of any charge, my home treatment with full instructions to any sufferer from women's ailments. I want to tell all women about this cure—you, my reader, for yourself, your daughter, your mother, or your sister. I want to tell you how to cure yourself at home without the help of a doctor. Men cannot understand women's sufferings. What we women know from experience, we know better than any doctor. I know that my home treatment is a safe and sure cure for Leucorrhoea or Whitish discharge, Ulceration, Displacement or Falling of the Womb, Profuse, Scanty or Painful Periods, Uterine or Ovarian Tumors or Growths, also pains in the head, back and bowels, bearing down feelings, nervousness, creeping feeling up the spine, melancholy, desire to cry, hot flashes, weariness, kidney and bladder troubles where caused by weakness peculiar to our sex. I want to send you a complete 10 days' treatment entirely free to prove to you that you can cure yourself at home. Remember, that it will cost you nothing to give the treatment a complete trial; and if you should wish to continue, it will cost you only about 12 cents a week, or less than two cents a day. It will not interfere with your work or occupation. Just send me your name and address, tell me how you suffer, if you wish, and I will send you the treatment for your case, entirely free, in plain wrapper, by return mail. I will also send you free of cost, my book—"WOMAN'S OWN MEDICAL ADVISER" with explanatory illustrations showing why women suffer, and how they can easily cure themselves at home. Every woman should have it and learn to think for herself. To Mothers of Daughters, I will explain a simple home remedy. It cures all, old or young. Thousands of women have cured themselves with my home treatment which speedily and effectually cures Leucorrhoea, Green Sickness, and Painful or Irregular Menstruation in Young Ladies. Plumpness and health always result from its use. Wherever you live, I can refer you to ladies of your own locality who know and will gladly tell any sufferer that this Home Treatment really cures all women's diseases and makes women well, strong, plump and robust. Just send me your address, and the free ten days' treatment is yours, also the book. Write to-day, as you may not see this offer again. Address: MRS. M. SUMMERS, Box N. 821. WINDSOR, ONT.

UNION STOCK-YARDS Horse Exchange TORONTO, ONTARIO

The Great Annual AUCTION SALE of 100 Registered Clydesdales Imported and Canadian-bred Will take place this year on Friday, March 4th, '10

There will be one importation in this sale of 40 fillies, direct from Scotland; also the other entries comprise mares, mares in foal and stallions; many of them being first-prize winners or from prizewinning stock, and all consigned by the very best breeders. This will be an opportunity not often had for breeders or farmers to start in or secure some new strains of breeding, as we expect to offer upwards of 25 stallions. All entries must be in by Feb. 19th, 1910, to insure cataloguing.

J. HERBERT SMITH, Manager.

Please Remember to Mention "The Farmer's Advocate" When Writing

3. Your ration is already well-balanced for milch cows, or, if anything, a little "narrower" than necessary. If oil cake were introduced, it would only be for the sake of economy, not that it is necessary to balance up the ration. If it can be purchased at \$2.00 a cwt. (as we interpret the somewhat illegible quotation), a small quantity might be purchased and fed at the rate of half a pound per head per day in lieu of one-half the bran now being given. The steers might well have an increased proportion of barley or corn.

EMPLOYEE AND TAXES.

A hires B to work on farm, with free house, for one year. A is taxed for farm and buildings. B is taxed in this manner: County rate, 86c.; statute labor, \$2; dog tax, \$1. Should B be exempt from taxes because he has been promised a free house? SUBSCRIBER.

Ontario. Ans.—We do not see that he should be so exempt as to the statute labor or the dog tax; but as to the county rate, we would require further information in order to answer the question.

INTERESTS IN A FARM.

A dies, leaving farm to B as long as B lives. At B's death, it is to go to C, who is to pay the others their shares and all debts during B's lifetime; also keep B, C doing all business and work. 1. C is married. If C dies before B, what share would C's wife get? 2. Or who would be the heir? 3. If she is not entitled to a share, could she collect wages for C and herself? W. D. Ontario.

Ans.—1 and 2. She and C's children, if any, in the absence of will by him to the contrary, would be entitled to the farm, subject to B's life estate therein, and the payment of A's debts, and the legacies mentioned. And even if an adverse will were made, C's widow would be entitled to her dower. We could not at this date and without further information as to the facts, venture to say just what share she would be entitled to. 3. No.

MOVING PICTURES

OF THE WONDERFUL WORLD CHAMPION
DAN PATCH 1:55

ABSOLUTELY FREE TO STOCKOWNERS




It is a New Invention that you can carry in your pocket and show your friends instantly, day or night, either once or a hundred times and without a machine, curtain or light. The original is the first successful moving picture ever taken of a World Champion Horse in his wonderful burst of speed.

A MILE OF 2400 MOVING RACE PICTURES OF DAN PATCH 1:55 and every picture shows the King of all Horse Creation as plainly as if you stood on the track and actually saw Dan Patch 1:55 in one of his Thrilling Speed Exhibitions for a full mile. 2400 distinct moving pictures taken every second all of the way around the entire track from the back seat of a high power automobile. You can see Dan shake his head to let his driver know that he is ready for a supreme effort and then you can watch every movement of his legs as he flies through the air with his tremendous stride of 29 Feet. You can see his Thrilling Finish as he strains every nerve to reach the wire, you can see his driver dismount and look at his watch while thousands of people crowd around, you can see his care taker force his way through the crowd and throw a beautiful woolen blanket over Dan to prevent his catching cold and then you can follow him up the track before the Madly Cheering Multitudes. As a Study Of Horse Motion it is better than the actual speed mile because you can see Dan right before you for every foot of the entire mile. When first shown to the public this marvelous picture caused people to stand up all over the theatre calling "Come on Dan" - "Come on Dan."

This Remarkable Moving Picture is the Most Realistic and the Most Thrilling ever presented to the public. I have taken a part of the Original 2400 Wonderful and Sensational Pictures and made them into a Newly Invented Moving Picture that you can carry in your pocket and show to your friends at any time, day or night. It does not need a machine, it does not need a curtain, and it does not need a light.

MY NEW MOVING PICTURES MAILED FREE TO STOCKMAN, postage prepaid, IF YOU ANSWER THESE THREE QUESTIONS

1st. In what paper did you see my Moving Picture Offer? 2nd. How many head Each of Horses, Cattle, Sheep, Hogs and Poultry do you own? 3rd. How many acres of land do you own or how many acres of land do you rent?

IF YOU ARE NOT A STOCKOWNER AND WANT THE MOVING PICTURES SEND ME 25 CENTS FOR POSTAGE. For Packing, etc., In Silver or stamps and I will mail you this Wonderful Moving Picture of Dan Patch 1:55, The Fastest Harness Horse The World Has Ever Seen.

Address - - - INTERNATIONAL STOCK FOOD CO., E. B. SAVAGE, Proprietor, TORONTO, CANADA. 49

GOSSIP.

A. F. & G. Auld, Eden Mills, Ont., ordering a change in their advertisement of Shorthorns, write: We have sold two of our young bulls at good prices. Still have Collynie Minstrel =73844=, an extra-good son of Scottish Minstrel (imp.) =68710=, dam Collynie Rose =55357=. We have entered this bull for the Guelph Sale on March 2nd.

J. H. M. Parker, of Willowdale Farm, Lennoxville, Que., who is an extensive breeder and importer of Ohio Improved Chester White swine, writes that his last importations were very satisfactory. Some of the sows have farrowed, and others will in March and April. He has over 100 pigs, sired by Ohio Chief, the big imported boar; also a lot from Quebec Lad, a domestic boar that weighed 510 pounds at one year old. Young stock from all these are for sale, at moderate prices. The sow, Willow Belle, raised thirteen fine pigs from Ohio Chief.

DYER sells Fence at Factory Price

I can sell you Crown Wire or Iron Fence, any style, give you far better quality and save you money. Same on Metal Gates. I sell direct from Factory to you at small margin, saving you salesman, jobber and retailer profits. Never been done in Canada before. Over fifteen years experience in Fence and Gate business has taught me how. Let me quote you E. L. Dyer, Mgr., Crown Fence - I pay all freight. Don't buy Fence or Gates until you read my free booklet. and Supply Co. Toronto, Can.

Dr. Page's English Spavin Cure

For the cure of Spavins, Ringbone, Curbs, Splints, Windgalls, Capped Hock, Strains or Bruises, Thick Neck from Distemper, Ringworm on Cattle, and to remove all unnatural enlargements.

This preparation (unlike others) acts by absorbing rather than blister. This is the only preparation in the world guaranteed to kill a Ringbone or any Spavin or money refunded, and will not kill the hair.

Manufactured by Dr. Frederick A. Page & Son, 7 and 9 Yorkshire Road, London, E. C. Mailed to any address upon receipt of price, \$1.00. Canadian agents:

J. A. JOHNSTON & CO., Druggists,
171 King St. E. TORONTO, ONT.



CLYDESDALES AND FRENCH COACHERS

We have still on hand a few choice Clydesdale stallions—all young—that for size, style and quality will stand inspection. We have also a few Clyde fillies—imported and Canadian-bred, and two French Coach stallions. Correspondence and inspection invited. Our prices are easy and terms to suit. Phone connection.

R. NESS & SON, HOWICK, QUEBEC.

WAVERLY CLYDESDALES AND HACKNEYS

My 1910 importation of Clydesdale stallions and fillies, and Hackney stallions and fillies, are now in my barns. One and two-year-old Clyde fillies of a character and quality never before excelled. My Hackney stud was never so strong in high-class animals. All are for sale and prices right. ROBT. BEITH, BOWMANVILLE, ONT.

Clydesdales, Percherons and French Coachers

My 1909 importation of Clydesdale stallions and fillies, Percheron stallions and fillies, French Coach and Hackney stallions are now in my stables. In this lot I can supply the most exacting. Size, style, character, quality and breeding. Will sell on terms to suit. Phone connection T. D. ELLIOTT, BOLTON, ONTARIO.

MY NEW IMPORTATION TO HAND.

In my new importation of 4 Clydesdale Stallions and 6 Clydesdale Fillies, I have material that will stand comparison with anything ever imported. They have great size, beautiful mould, full of quality, right fashionably bred and perfect action. JOHN A. BOAG & SON, QUEENSVILLE, ONTARIO.

HILLSDALE FARM

OFFERS FOR SALE

Clydesdale Stallions and Mares (5)

From 4 to 6 years old, two of the stallions by the famous Silver Cup, one out of a Sir Everard mare, another bred through the dam of Darnley (222); big, sound horses, and selected with a special view to their stock-getting qualities. A prize mare by Marcellus, out of a Montrave Mac mare, is part of the offering. Also the prize Hackney, Dainty Duke of Connaught, by the great Garton Duke, dam Dainty by Denmark. Write me for further description and prices, and compare with others for similar quality of offering.

B. ROTHWELL, Hillsdale Farm
Ottawa P.O., Ontario.

Imported Clydesdales

My first importation for 1910 has just arrived. Stallions up to a ton in weight, from 1 to 5 years of age. Draft character and faultless underpinning are a predominating feature. Also a few big choice fillies 2 and 3 years of age. WM. COLQUHOUN, MITCHELL, ONT. Phone connection.

HIGH-CLASS French Coach, Hackney and Clydesdale Stallions.

HENRY M. DOUGLAS, Box 48, Stayner, Ont.

Clydesdales Home from the Shows

Intending purchasers would do well to see them before buying. Prices moderate. Myrtle, C. P. R. SMITH & RICHARDSON, Columbus, Ont. Brooklin, G. T. R.

ORMSBY GRANGE STOCK FARM, Ormstown, P.Q.

DUNCAN McEACHRAN, F. R. C. V. S., D. V. S., Proprietor. Importer and breeder of high-class pure-bred Clydesdales. Farmers or ranchmen starting breeding Clydes., pure or grade, specially invited to correspond.

Messrs. Hickman & Scruby,

Court Lodge, Egerton, Kent, England.

EXPORTERS OF PEDIGREE LIVE STOCK of every description. Owing to the rapid increase in business, Mr. L. C. Scruby has been taken into partnership. During the spring months the export of horses of the light and heavy breeds will be a speciality. Write for prices, terms and references.

Ponies and Driving Horses!

PRESENT OFFERING: 14 PONIES 10 TO 13 HANDS. All guaranteed sound and reliable. Also a few choice young driving horses 15 1/4 to 15 3/4 hands. Matched pairs or single. Sound and gentle. Reasonable in price.

E. DYMENT COPETOWN, ONTARIO.

When Writing Mention The Advocate

Imported Clydesdales

My new importation of Clydesdale stallions for 1910 have arrived. They were selected to comply with the Canadian standard, combining size, style, quality and faultless underpinning with Scotland's richest blood. They will be priced right, and on terms to suit. C. W. BARBER, GATINEAU PT., QUEBEC.

CLYDESDALES and HACKNEYS

We have for sale a few choice Clydesdale mares, imported and Canadian-bred; also some Canadian-bred Clydesdale stallions. Hackney stallions and mares for sale always. Long-distance phone. Hodgkinson & Tisdale, Beaverton, Ont. G. T. R. and C. N. R.

High-class Imported Clydesdales!

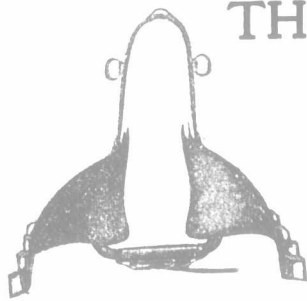
I have lately landed at my stables at Milverton, Ont., an exceptionally choice selection of Clydesdales—stallions and fillies. They are all prizewinners at the leading shows in Scotland. From one to five years of age. Full of quality and royally bred. Jno. Semple, Milverton, Ont.

HICKORY HILL AYRSHIRES.

From a proven ability to produce large yields of milk, rich in butter-fat, there is no herd in Canada that have won so many prizes in dairy competitions, nor have shown better producing qualities than the Hickory Hill herd, the property of N. Dymont, of Clappison, Ont. This great dairy farm lies on the mountain, a few miles from the town of Dundas. Mr. Dymont has been breeding Ayrshires for thirteen years, with the special object in view of increasing their milk-producing capabilities, and their remarkable success in the dairy tests at Guelph, is undeniable evidence that the herd is second to none in Canada. From 40 to 60 pounds a day is the milk record of the herd, nearly all of which are in the Record of Performance, and the old stock bull, Dairyman of Glenora, was the first Ayrshire bull in Canada to qualify for that Record, something that should not be forgotten by parties looking for a herd-header or for foundation females, as all the younger things are his get. As assistant in service, Mr. Dymont has purchased the splendid young bull, Haysmair Milk Record (imp.), whose ideal type and rich breeding should produce great results, mated with the get of the old stock bull, which are now all in calf to the young bull. Through one of the unaccountable freaks of nature, Mr. Dymont's 1909 crop of calves were nearly all bulls, while the 1908 crop were nearly all heifers. Of young bulls, he has, therefore, for sale, one yearling and one calf out of Flos Morton, sweepstakes cow at London and other Western shows. She is a big cow, of ideal type, with large teats and perfect udder, and is now milking 49 pounds a day. Another bull calf is from Nellie Grey of H. H., daily milk yield 50 pounds, which she maintained for 150 days during last summer, when, owing to the dry weather, the herd had to be driven four miles every day for water. Another bull calf is from Rosabel of H. H., who won the dairy test at Guelph in 1908. Another from Susie of H. H., whose milk record is 60 pounds a day. Another from Queenie of H. H., who won second in the Guelph test, record 50 pounds a day. Another from Fairy of H. H., that at second calving gave 50 pounds a day that tested 4.6 per cent. Another from Beauty of H. H., that was first in the test at Guelph this winter, making the best record for a heifer made at any of the winter shows. All these cows are in the Record of Performance. These young bulls are nearly all white, sired by the young stock bull, as choice a lot of coming herd-headers as Canada produces, their dams being nearly all sired by the old stock bull; a few heifers can also be spared.

TRADE TOPIC.

The best Canadian Clover seed, the most careful selection, and the most modern mills, all combine to make the Keith's "Sun" brand Red Clover the choice of the most discriminating growers of Ontario. Send for a sample, also catalogue. Geo. Keith & Sons, seed merchants, Toronto. (Advt.)



THIS IS A REAR VIEW OF The Humane Horse Collar

SOMETHING no thoughtful farmer can afford to be without at least ONE, if he owns one pair of horses, or TWO if he owns more. Now, why? you ask. FIRST, because owing to the high price of horses, and all products raised on the farm this year, above all others. It is absolutely essential from a monetary standpoint that the horse should be kept well and busy. THE HUMANE COLLAR is the only one made to-day that is guaranteed to do this. If your horse should be idle for one day, it will more than pay for the collar, but when he gets sore shoulders it takes more than one day to cure him.

SOLD BY OVER 5,000 HARNESS DEALERS.

Over 60,000 sold in the U. S. last season. The Humane Horse Collar has 40 square inches of pulling surface to 10 inches on the old-style collar. The pulling is all done where the shoulder is the strongest, and where it is best protected by heavy layers of muscles. NO grinding from one shoulder to the other. NO pressure on top of the neck. NO hot sweat pads to chafe the horse. NO choking on going up hill. NO sweened horses, and NO sore shoulders or necks with THE HUMANE HORSE COLLAR.

It is adjustable to any horse from 16 to 26 inches, and is put out on 15 days' free trial; if not entirely satisfactory your money cheerfully refunded.

Write to-day for free catalogue describing and giving testimonials, then order one from your dealer for the spring work. If he cannot supply you, order direct from us. Address:

The Whipple Horse Collar Co., Limited, HAMILTON, CANADA.

22 Imp. Clydesdale Stallions



Just landed, ages from 2 to 5 years old. A number of them are premium horses. Several are over the ton, or will make it. A number of them are grandsons of Baron's Pride. All are for sale. Prices are reasonable. Intending purchasers will find it to their interest to see these horses before purchasing. Farm two miles from the end of street-car line.

O. SORBY, Guelph, Ont.

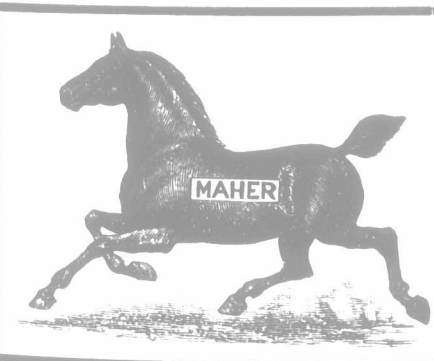
Long-distance phone.

20 Imp. Percheron Stallions 20



Our 1909 importation of 20 Percheron stallions, from 1 to 5 years of age, are now in our stables. Up to over a ton in weight. Big, stylish, choke-full of flashy quality, and faultless movers. Prizewinners among them. The best lot ever imported to Canada. All are for sale on terms to suit.

HAMILTON & HAWTHORNE, Simcoe, Ontario.



Maher's Horse Exchange

16 to 28 Hayden Street TORONTO (Near cor. Yonge and Bloor)

AUCTION SALES of Horses, Carriages, Harness, etc., every MONDAY and THURSDAY at 11 a.m. PRIVATE SALES every day. We have always a large quantity of horses on hand for Auction or Private Sale. We have the biggest and best sale ring and stables in Canada. We hitch and try all horses for out-of-town buyers, and guarantee satisfaction. WE SELL STRICTLY ON COMMISSION.

P. MAHER, GEO. JACKSON, Proprietor, Auctioneer.

T. H. HASSARD'S NEW IMPORTATION!

MY NEW IMPORTATION OF

Clydesdale Stallions and Fillies

are now in my stables at Markham, Ont., and, as usual, I have a big range for selection, of a type, breeding and quality seldom equalled, never excelled, by any previous importation. Call and see them. Phone connection. **T. H. HASSARD, Markham, Ont.**

Imported Clydesdales We have a number of newly-imported stallions on hand in our stables in London, Ont., including some very large and heavy horses, several prizewinners. Another consignment, stallions and fillies, sailed Saturday, October 16th, from Glasgow. **DALGETY BROS., LONDON, ONTARIO.**

Imported Clydesdales I have lately landed an importation of 4 young stallions and 5 fillies, whose breeding is unsurpassed. They are the kind the country wants. Big, smooth, stylish, full of quality and straight movers. Will be sold right and on easy terms. **Geo. G. Stewart, Howick, Que.** Phone.

GOSSIP.

Those interested in Herefords should look up new advertisement in this issue by J. Lindsay, Limehouse, Ont.

Sparks Bros., and Dr. Philips, of Port Elgin, Ont., recently purchased from Hamilton & Hawthorne, of Simcoe, Ont., one of the finest Percheron stallions ever imported into this country. He is a fine black colt, coming four, which, on the day of purchase, weighed 2,040 pounds, and was, altogether, one of the finest individuals in this old firm's large stock of Percheron stallions. These young men should be congratulated on taking such a horse into their community, as he will, doubtless, do much to raise the standard of horses for all who patronize him.

BIG DEMAND FOR YORKSHIRES.

In spite of the fact that in the great Monkland herd of Large English Yorkshire swine there are continuously on hand for breeding purposes from 75 to 150 sows, so great is the demand for breeding stock from this renowned herd that the owners, James Wilson & Sons, Fergus, Ont., are sometimes put about to fill the continuous string of orders. The record prices being paid for hogs for slaughter for some months past, and every evidence of those prices continuing, has stimulated farmers to increase their breeding stock. Reports from every country in the world show there is an enormous shortage of hogs, and the rapid increase in population, particularly in this country, and the consequent large increase in consumption of hog products, is a safe guarantee that farmers going extensively into hog-raising, will surely reap the reward of largely-increased receipts from their farms. The Monkland herd of Yorkshires is the largest herd of registered Yorkshires in Canada, and is also one of the best. Extremely large in size and of ideal type, no better stock can be purchased for breeding purposes. When in want of Yorkshires, write the Messrs. Wilson. They represent things exactly as they are, and guarantee entire satisfaction.

LAST CALL FOR THE NICHOLSON & FAIRBAIN SHORTHORN SALE.

Mr. Nicholson writes: "Among the females to be sold on March 1st, are nine two-year-old heifers of fine quality and breeding. Most of them were raised on skim milk, since which they have not been forced, but just fed to keep them gently moving.

Five weeks before date of sale, we had no thought of selling; since then we have fed them.

They are making a wonderful growth, and illustrating what well-bred things will do when given a chance.

They are safe in calf, and are just the kind to give the best results to purchasers. Whoever gets them will build on a good foundation. The cows (all under eight) will have calves at foot, and will be bred before the sale.

The young bulls are a capital lot; we have tempting offers for some of them, but have refused to entertain. The public can rely that everything will be on hand the 1st of March, and each lot sold to the highest bidder.

This is the sixth auction sale we have held in recent years, and this principle has governed each sale in the past: "That no bid will be made by or for the proprietors, either directly or indirectly, and that every animal shall be sold to the highest bidder."

These rigid principles will govern this sale also.

All lovers of pure-bred stock are cordially invited, whether they wish to buy or not.

Teams will meet trains at Parkhill, G. T. R., evening before and morning of sale.

TRADE TOPIC.

O. A. C. NO. 21, Mandescheuri Barley.—Grow this grand strain, and you will agree with all who have seen it, that it far surpasses any six-rowed barley ever grown in Canada. Geo. Keith & Sons, seed merchants, Toronto, offer it in five-bushel lots at \$1.25 per bushel, bags free. Ask for sample, also catalogue. (Advt.)



METALLIC SIDING FOR HOUSES

Metallic Rock Faced Stone or Brick Siding will give your home the appearance of a genuine stone or brick dwelling. It is easily and cheaply applied and absolutely fire and weather-proof.

Galvanized Corrugated Steel Siding

For Implement Sheds, Barns and Granaries. Insures the safety of your grain and implements. It may be applied direct to the studs—no sheathing is required.

Write us for full information. Our suggestions will save you money.

Phone Park. 800. "Metallic saves you money all around. Why look how it will reduce your insurance rates."—The Philosopher of Metal Town.

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MOON BLINDNESS and all Diseases of the Eye successfully treated with this NEW REMEDY.

Money Back if it fails to cure. \$2.00 per bottle postpaid on receipt of price. Visio Remedy Ass'n, Dept. 8, 1833 Wabash Av., Chicago, Ill.

Clydesdales and Percherons



To my many friends, and the public generally, I wish to say that in my stables at Weston, Ont., I have my 1909 importation of 10 Clydesdale and 8 Percheron stallions; a lot that for true draft character, faultless underpinning, choice quality and breeding were never surpassed. Terms to suit and prices right.

J. B. HOGATE, Weston, Ont. and Brandon, Man. W. D. COLBY, Mgr. Weston, Ont.

DUNHAMS' PERCHERONS

Next large importation stallions and mares here FEBRUARY 10th, which, added to our present stock, offers intending purchasers the finest collection in America. If you want the best horses, horses with bone, quality, size, action and best breeding, stallions or mares; if you want fair and liberal treatment; if you want lowest prices consistent with good merchandise, visit Oklawna. Catalog shows the place and the horses. **W. S., J. B. & B. Dunham, Wayne, Ill.**

ABSORBINE

Removes Bursal Enlargements, Thickened, Swollen Tissues, Curbs, Filled Tendons, Soreness from any Bruise or Strain, Cures Spavin Lameness, Allays Pain. Does not blister, remove the hair or lay the horse up. \$2.00 a bottle, delivered. Book 1 D free. **ABSORBINE, J.R.**, (make kind 1.00 bottle.) For Synovitis, Strains, Gouty or Rheumatic Deposits, Varicose Veins, Varicose, Hydrocele, Allays Pain. Book free. **W. F. YOUNG, P.O., 258 Temple St., Springfield, Mass. LYMAN'S Ltd., Montreal, Canadian Agents.**

For Sale: REGISTERED HACKNEY STALLION, COCK ROBIN.

Three years old; 15 1/2 hands; chestnut; hind feet white. Sire Commodore 3rd, imp., (6695), by Chocolate Jr. (4185). Dam Ada Adair (181), by Robin Adair 2nd, imp., (3907). For description, terms, etc., address: **G. W. CLEMONS, ST. GEORGE, ONT.**

FOR SALE: Imp. Percheron Stallion

Dark brown. Six years old. Weight, 1,850 lbs. Quiet, sound and sure. Easy terms. **H. D. STANTON, THAMESVILLE, ONT.**

For Sale Imported Clydesdale Stallion,

Royal Sovereign (7927), black face and feet white. An extra good one. Rising three. Sired by Earl of Angus (7109) (12134), dam Dedora (13397) (Vol. 29), by Woodend Gartley. Apply to: **Alex. McIntyre, Cathcart, Brant Co., Ont.**

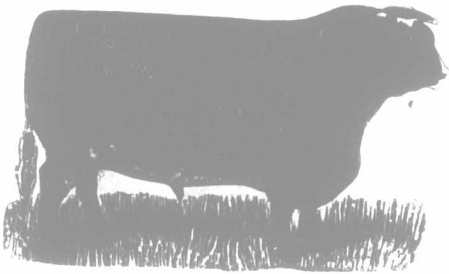
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Dispersion Sale

POSITIVELY NO RESERVE. ONE OF THE OLDEST-ESTABLISHED

Shorthorn Herds

In Canada, the property of MR. ARTHUR JOHNSTON, Greenwood, Ont., at the farm, 7th Con., Pickering Tp., on

Tuesday, **March 8, 1910**

THE HERD will be found in the very nicest condition, and consisting of about 40 females, including several show-yard propositions, and 9 extra nice young bulls of breeding ages and show-yard character, including the first-class imp. three-year-old Butterfly bull—a show bull from the ground up. The tribes represented will include such well-known and fashionable families as follows: Kilblean Beauties, Cruickshank Lavenders, Duchess of Glosters, Butterflies and Villages, Marr Claras, Kinellar Nonpareils, Minas and Clarets, Bruce Mayflowers, Miss Ramsdens and Crimson Flowers, together with half a dozen high-class English milking cows and heifers imported by myself. For full particulars apply to:

ARTHUR JOHNSTON, Greenwood, Ontario.

ONTARIO DEPARTMENT OF AGRICULTURE

PROVINCIAL AUCTION SALE

OF REGISTERED

Shorthorn and Hereford Cattle

(Males and Females)

WILL BE HELD AT GUELPH ON

Wednesday, March 2nd, 1910

Under the management of the GUELPH FAT-STOCK CLUB.

All stock inspected. Only good representatives offered. Many of the most fashionable Scotch families will be represented.

Freight on animals purchased by residents of Ontario and shipped to points in Ontario will be paid.

For catalogues and further particulars, apply to

W. R. ELLIOTT,
President.J. M. DUFF, Secretary,
Guelph, Ontario.

JOINT AUCTION SALE

OF

Shorthorn Cattle

From the herds of R. & S. NICHOLSON, Sylvan, and H. K. FAIRBAIRN, Thedford, at "Eimdale," 5 miles south-west of the town of Parkhill, and 1½ miles east of the village of Sylvan, on

Tuesday, March 1st, 1910, at 1 p.m.

Consisting of 9 yearling bulls and 15 females. The bulls are nearly all sired by imp. bulls, and some from imp. females. They represent the best Scotch families, and are as well bred as the best. Individually they are a good lot. Teams will meet trains at Parkhill the evening before and morning of sale, and return for evening trains after the sale.

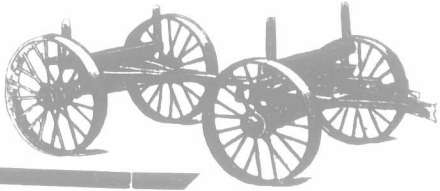
TERMS—Nine months' credit. Lunch at noon. Catalogues sent on application.

CAPT. T. E. ROBSON,
Auctioneer.STEPHEN NICHOLSON, Sec.
Sylvan, Ont.

How to Save Labor on the Farm

Dominion Low, Wide-tire Steel Wheels are lightest, strongest, cheapest. Will not sink into earth. Save roads, easier for horses. Carry as much as horses can draw. Guaranteed not to break from frost or rocky roads. Can be taken apart. Save own cost first season. 4

Our Hardy Wagon has low, strong, steel wheels. Can be loaded in less time than high one. Saves half labor and time. Changed into platform wagon in few minutes. Easy draft, strong, neat. Guaranteed. Write for free booklet.

DOMINION WROUGHT IRON WHEEL CO., LTD.,
Orillia, Ontario.

Please Mention this Paper.

QUESTIONS AND ANSWERS.
Veterinary.

WOUND REFUSES TO HEAL.

Horse cut himself above the hoof. It has all healed but a place the size of a dime; a scab forms and falls off, and the place does not heal. A. McD.

Ans.—Apply a little butter of antimony with a feather, once daily, for two days. Then dress three times daily with 1 part carbolic acid to 25 parts sweet oil. Keep him out of deep snow, or other substances that tends to rub the scab off. V.

UNTHRIFTY MARE.

I bought a mare six months ago. She raised a foal last year, and is again pregnant. She has a good appetite, but does not improve in condition, and is subject to colic. W. L.

Ans.—Take equal parts sulphate of iron, gentian, ginger and nux vomica; mix, and give her a tablespoonful, three times daily. Feed on first-class hay, rolled oats and bran, with a little linseed meal, and give a couple of carrots once daily. Give her regular exercise or light work. Do not drive or work shortly after a meal. V.

PREGNANT MARE LOSING MILK.

Mare that will be due to foal in April has large mammae, and milk has been running for three weeks. A. C.

Ans.—This occasionally occurs, and it is not a favorable symptom. It sometimes occurs when the fetus dies, and in these cases the mare may, at full term, produce a small, somewhat mummified fetus. In other cases the foal is not dead, but is often weak when born, while in other cases the foal is smart and strong. We cannot tell what causes this abnormality in many cases. All that can be done is to feed the mare on dry food and give regular exercise. The administration of 1 dram iodide of potassium, three times daily, tends to check the secretion of milk, but it is doubtful if it is wise to give it. In most cases we do not advise the administration of drugs. V.

Miscellaneous.

HORSE WITH COUGH.

A horse about nine years old has had a slight cough for about a year. Of late he is a little worse, but not bad. On the road, the cough catches him going down hill. Sometimes his nose runs a little. He eats and works well. I do not think his wind is affected.

1. What is the probable cause of cough?
2. What will prevent, help, or cure the cough?
K. M. L.

Ans.—Take 3 ounces pulverized gum opium, 1 ounce powdered digitalis, 4 drams arsenic acid, 4 ounces powdered liquorice root. MIX, and make into 24 powders. Give a powder every night in damp food. Repeat the prescription if necessary.

TRADE TOPIC.

Shrewd buyers appreciate that now is the time when you have the best selection of all the seeds offered. Geo. Keith & Sons, seed merchants, Toronto, are offering at present, O. A. C. No. 21, Mandescheuri barley and Scotch-grown Regenerated Banner oats, in five-bushel lots, at \$1.25 per bushel, bags free; also No. 1 Government Standard Red clover, at \$10.00, Timothy at \$3.00, Alsike at \$8.50, and Alfalfa at \$12.50 per bushel, bags 25c. extra. For the most exacting, they are offering their "Sun" brand Red Clover, "Ocean" brand Alsike, "Gold" brand Alfalfa, and "Diamond" brand Timothy, at 50c. per bushel advance on above prices. These brands represent the purest that can be got, free from Buckhorn, Ragweed and Mustard. Ask for samples, also catalogue. (ADVT.)

R. McNamara, Stratford, Ont., has an advertisement of Holstein bull for sale in this issue. No doubt this will prove a bargain for someone.

Mount Birds and Animals

Write for FREE BOOK



You can learn the unique science of Taxidermy right at home, by mail, and at a very small cost. By our exclusive methods we teach you in a few lessons, how to mount all kinds of birds and animals, tan skins for rugs, robes, etc. Absorbingly interesting, pleasant work. You can beautifully decorate your home or make big money mounting for others.

Big Profits in Taxidermy either as a profession or a side line. Thousands make \$12 to \$20 a week in their spare time or \$2000 a year and more as professionals. **Big demand** for competent men who know our system. **Sportsmen and Naturalists**—Mount your own trophies. You quickly learn to do the work as well as any professional. **FREE** To those who write at once we will send free, a copy of our handsome book, "How to Learn Taxidermy," copy of Taxidermy Magazine, sample diploma, and full particulars, all free. Write NOW.

NORTHWESTERN SCHOOL OF TAXIDERMISTRY
6092A Elwood Building, OMAHA, NEB.

MIDDLEBROOK ABERDEEN-ANGUS. I am now offering for sale three choice young bulls; also a few females, either bred or with calf at foot to Hundred, grand champion Angus bull at Toronto last year. **JOHN LOWE, Flora, Ont., P. O. and Station**

ELM PARK ABERDEEN-ANGUS

We have some choice bulls for sale, and also females bred to Imp. Prince of Benton 58632, and Imp. Magnificent—2856—(27115).

JAMES BOWMAN, Elm Park, Guelph, Ont.

Homestead Aberdeen-Angus

Some extra good bull calves, 6 to 8 months old; also females, all ages. Parties looking for cattle, either sex, should write, or come and see them. **William Ische, Sebringville, Ont.** Long-distance Phone.

Pure-bred Hereford Bulls

For sale Polled and horned. Breeding choice.

Address: J. LINDSAY, LIMEHOUSE, ONTARIO.

ABERDEEN - ANGUS

Will sell both sexes; fair prices. Come and see them before buying. Drumbo station.

WALTER HALL, Washington, Ont.

FOR SALE: SOME NICE YOUNG

Aberdeen-Angus Bulls and some females of all ages. Also a first-class Clydesdale stallion. **J. W. Burt, Coningsby, Ont.**

Aberdeen-Angus Cattle

MALES AND FEMALES FOR SALE. APPLY: **Geo. Davis & Sons, Alton, Ont.**

Shorthorns

FOR SALE! Several choice Canadian-bred bulls ready for service; also a good imp. two-year-old bull of the Brawith Bud family. A number of cows and heifers of different ages of right type and quality. Write or call on **H. J. DAVIS, Woodstock, Ontario.** Long-distance Bell phone. C.P.R., G.T.R., main lines

Willow Bank Stock Farm

SHORTHORNS AND LEICESTERS.

Herd established 1855; stock 1884. The great Dutchie-bred bull, Imp. Joy of Morning = 32070=, and the Mistic bull, Royal Star = 72502=, heads my herd. Choice selections to offer at all times in both bulls and females.

JAMES DOUGLAS, CALEDONIA, ONTARIO.

HAWTHORN HERD

OF DUAL-PURPOSE

Shorthorns

15 heifers, 6 bulls present offering; bred right; priced right. Come early and get a choice.

WM. GRAINGER & SON, London, Ont.

7 Shorthorn Bulls for Sale!

7 to 16 months, got by Broadhooks Prince (imp.) 55002. Some of them out of imp. cows. Choicest breeding. Good calves. Good size and condition. At lowest living prices. Also young cows and heifers. Show material and excellent milkers. Come and see them. **DAVID MILNE, Ethel, Ont., P. O. and station a few rods—Huron Co.**

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Birds

Write for FREE BOOK

How to Learn Taxidermy

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GOSSIP.

Wm. Smith, Columbus, Ont., writes. There sure is a great difference in the demand for Shorthorn bulls this winter, compared with a year ago.

W. H. Simmons, New Durham, Ont., reports the following recent sales from his Holstein herd: To H. A. Lester, Burford, Ont., a son of Liola, 17.50 lbs. butter in seven days at 3 years and 3 months, the highest record made in Canada under 3 1/2 years at that time.

David Milne, Ethel, Ont., ordering a change in his advertisement of Scotch Shorthorns, writes: My herd of some 50 head are doing well. Amongst them are seven bulls, 7 to 16 months old, some out of imported cows, and all got by Broadhocks Prince (imp.) =55002=.

TRADE TOPICS.

Where will you get your seed corn this year? Have you thought of it? Have you had trouble before? A very small quantity of this season's crop is fit for seed.

A newspaper item, widely copied, appeared recently in a number of New York City newspapers regarding the sale of a block of stock of one of the phonograph companies in which Mr. Edison is the controlling stockholder.

ONLY ONE GENUINE

RUBEROID

(Pronounce it RUE-BER-OLD)

ROOFING



Beware Imitations.

No other article has been so

Persistently Imitated in Name and Looks

Why?

Because it is the STANDARD of quality. Because it has stood the TEST OF TIME. Because its EFFICIENCY is known all over the world. Because it is the OLDEST and BEST.

The genuine bears fac-simile of the "Ruberoid Man" on the outside wrapper and the word "Ruberoid" is stamped every few feet on the underside of the Roofing.

Ruberoid is made in Canada exclusively by THE STANDARD PAINT CO. OF CANADA, LIMITED, 286 ST. JAMES STREET, MONTREAL. DEALERS EVERYWHERE.

Let us send you our FREE BOOK which tells you fairly and impartially the result of years' tests of all kinds of Roofings. It is information you should have. WRITE TO-DAY.

FREE \$200.00 in Cash

AND 500 VALUABLE PREMIUMS GIVEN AWAY

Opposite will be found three sets of mixed or jumbled letters. The first set when placed in proper order spells the name of a popular fruit. The second set spells the name of an article in every kitchen.

Here are the sets:

- PAPEL [The name of a popular fruit.]
VOTES [An article in every kitchen.]
AHT [An article we all wear.]

The judging of the above will be in the hands of three gentlemen of undoubted integrity, who have no connection with this office.

Write your answer to the above neatly and plainly on a slip of paper, and send it to us at once. Both writing and neatness count in this contest.

There is a simple condition that must be complied with, which we will write you about as soon as we have your answer to the above.

- FIRST PRIZE, \$50.00 in Cash
SECOND PRIZE, \$40.00 in Cash
THIRD PRIZE, \$35.00 in Cash
FOURTH PRIZE, \$25.00 in Cash

Also FIVE HUNDRED PRIZES, consisting of Watches, Dinner Sets, Knives and Forks, Violins, &c. Complete Illustrated Prize List and names of winners in late contests sent to any one who enters this competition.

Address BOVEL MANUFACTURING CO., Dept. 25 Montreal

Maple Hall Shorthorns

Are bred on most fashionable Scotch lines, and are of high-class individuality. For sale are 6 young bulls from 6 to 10 months of age.

Choice Scotch Shorthorns. We are offering several very choice heifers: Duchess of Glosters, High-class show heifers among them.

ROWAN HILL SHORTHORNS. I am offering 5 young bulls of choice breeding and color, all sired by the champion bull, Royal Chief 65495.

IRVINE SIDE SHORTHORNS. 3 bulls fit for service; 1 fifteen months' roan from imp. sire and dam; 1 thirteen months' red from imp. sire and Miss Ramsden dam.

SALEM SHORTHORNS! Young bulls and heifers, sired by the great show and breeding bull, Jit Victor (imp.) at J. A. WATT, SALEM, Ont. ELORA STATION, G. T. R. and C. P. R. Long-distance Telephone.

VALLEY HOME SHORTHORNS AND BERKSHIRES. If you want a first class Shorthorn bull or heifer come and see what we have, or if you want a show animal with a choice pedigree we have them.

SHORTHORN BULLS

I have some choice young bulls, from imp. sire and dams. Good ones at reasonable rate. Come and see them. Prices right. Also some choice heifers.

J. Brydone, MILVERTON, ONTARIO. G. T. R. and C. P. R. Station.

SHORTHORNS. Choice young bulls and heifers, dark roans and reds. One white bull calf at a bargain. Dams all from a milking strain. A few Shropshire ewe lambs. Write for prices. JOHN RACEY, Lennoxville, Que.

SHORTHORNS BERKSHIRES. One choice young Lady Fanny bull for sale—good herd header; also several young heifers. A few prizewinning Berkshires, both sexes. Write or come and see them. Prices moderate. ISRAEL GROFF, ELMIRA, ONTARIO

Shorthorns and Leicesters. For sale: Choice-bred young bulls, and a number of 1 and 2 year-old heifers. All got by Imp. sires, and out of grand milking dams. And Leicester rams and ewes of all ages. W. A. Douglas, Tuscarora, Ont., Caledonia Station.

Bud's Emblem = 63860 = (284905) A. H. B. First-prize aged bull C. N. E., 1909, by that famous champion and sire of champions, Old Lancaster, imp. = 50068 =, heads the Old Meldrum herd of SHORTHORNS, near Guelph. A. F. & G. Auld, Eden Mills P. O., Ont.

Please Remember to Mention "The Farmer's Advocate" When Writing

VALUABLE VETERINARY BOOK FREE



Write to-day for "Veterinary Experience"—a book that will enable you to be your own veterinarian. It is an invaluable treatise on the horse, horse diseases, and the treatments and remedies which cure. Among other things of vital importance to every horse owner, it tells how and why

TUTTLE'S ELIXIR

cures Curb, Splint, Spavin Lameness, Bony Growths, Sprains, Swellings, Shoe Boils and Founder, Distemper and Colic. Also makes the

Best Leg and Body Wash.

Tuttle's Elixir has for many years been the main stay of veterinarians and operators of large stables everywhere.

It is quick and sure in action, non-poisonous, cannot injure, pain or blemish the horse. Write for the proofs of our claims. If your dealer doesn't keep Tuttle's, send us his name and 50 cents in stamps, and we will send a large size bottle prepaid. Don't experiment. Get Tuttle's and be sure. Ask also for Tuttle's American Worm and Condition Powders and Hoof Ointment.

Send us your name, address and 2c. stamp now, so we can mail you the Free Book.

TUTTLE'S ELIXIR CO., 205 Beverly St., Boston, Mass.

A. Edward Meyer

P. O. Box 378, Guelph, Ont.,

Breeds **SCOTCH SHORTHORNS** Exclusively. Twelve of the most noted Scotch tribes have representatives in my herd. Herd bulls; Scottish Hero (imp.) = 55042 = (9'065) 295765 A. H. B.; Gloucester King = 68703 = 283804 A. H. B. Young stock for sale. Long-distance phone in house.

Shorthorn Cattle

Would price my stock bull, Star Prince = 53900 =. Red. It would pay anyone wanting a bull to come and see his produce. Oldest bull I have left by him will be a year old in February. A winner in Toronto and London. Females of all ages. Some very good heifers in nice condition. All reds or good roans.

J. T. GIBSON, DENFIELD, ONT.

Geo. Amos & Sons, Moffat, Ont.

Cattle bred by us have won grand champion females, Toronto, 1907, 1908, and junior champion 1909. American grand champion 1908, grand champion, A. Y. P. E., Seattle, Wash., 1909; also won five firsts at Toronto, 1908, in groups our own breeding. For sale: several good young bulls, cows and heifers at very moderate prices for sake of room for coming calves.

Farm 11 Miles East of Guelph, C. P. R.

Scotch Shorthorns

At Toronto Exhibition this fall yearling bulls bred by us won 1st and 3rd in class and junior champion 1909. We also bred the sire of these bulls. The grand champion steer at Guelph was sired by a bull of our breeding. We have 10 young bulls for sale now, bred the same. Write for breeding and prices.

John Miller, Brougham P. O., Ontario.

Claremont Stn., C. P. R., 3 miles

1854—Maple Lodge Stock Farm—1910

Shorthorn bulls and heifers of extra quality and breeding, and from best milking strains.

Leicesters of first quality for sale. Can furnish show flocks.

A. W. SMITH, Maple Lodge P.O., Ontario. Lucan Crossing Sta., G. T. R., one mile.

SPRINGBROOK SHORTHORNS

For sale: 8 good bulls, 6 red and 2 roan, some sired by Royal Sovereign. Bred by the late S. Campbell, Aberdeenshire, Scotland. Most of them by Lord Gordon, bred by A. Watson, Elgin, Scotland.

J. & W. Russell, Richmond Hill, Ont.

Spring Valley Shorthorns

Herd headed by Clipper Chief (imp.) = 64220 = (94673). If you want to get an imported bull, or a good Canadian-bred one to head your herd, be sure and write, or come and see them. Long-distance telephone.

KYLE BROS., AYR P.O., ONT.

HIGH-CLASS SHORTHORNS

I have on hand young bulls and heifers of high-class show type, pure Scotch and Scotch-topped, sired by that sire of champions, Mildred's Royal. If you want a show bull or heifer, write me.

Geo. Gier, Grand Valley P.O. and station, also Waldemar station.

Geo. D. Fletcher, Binkman P.O., Ont., offers four choice Shorthorn bulls 10, 13 and 18 months old, with both breeding and quality for herd headers. Prices easy. Stock bull, Benachie (imp.) = 69954 = ; also Shorthorn females and Yorkshire sows. Erin shipping station, C. P. R.

QUESTIONS AND ANSWERS. Miscellaneous.

SECRETARY AM. SHROPSHIRE ASSOCIATION.

Who is the present Secretary of the American Shropshire-breeders' Association, or to whom should applications for entry be made?

J. A. M.

Ans.—The Secretary of the American Shropshire Registry Association is J. M. Wade, La Fayette, Ind.

TROUBLESOME PIGS.

I intend to plant a field next the road in corn, roots and potatoes. My neighbor lets his pigs run where they will most of the time, and they have destroyed a lot of the neighbors' corn in the past seasons. The line fence next my field is woven wire, but does not prevent the pigs from going through underneath. It is his part of the line fence. Now, what do you advise, and what does the law provide in such cases?

Ans.—Your neighbor would be liable for any damage done by his pigs; and you would be entitled to detain and deliver them to the poundkeeper, whereupon they would be detained until damages, costs and poundage fees were paid or secured. It would be advisable for you to warn your neighbor of your intention to plant the proposed crops, and request him to see to it that his pigs do not trespass upon them.

AMOUNT OF GRASS AND CLOVER SEED PER ACRE.

As a subscriber and reader of your magazine (which I have already found to excel all others for farmers, etc.), I would be much pleased to have answered in your columns the following:

1. What mixture, and in what proportions, and also how many lbs. of seed to the acre, would you suggest for a good, thick timothy meadow?

2. How many pounds of red clover seed dare I sow to an acre of average land for Wentworth County (clay loam), to have the best results? S. S. T.

Ans.—1. We take it that a mixture is desired which will produce a thick stand of timothy in the second or third year of cropping, and with this end in view would suggest ten pounds timothy seed, eight pounds red clover, and two pounds alsike per acre. This ought to give a pretty sure and even stand, producing a heavy yield of moderately-fine hay.

2. We would recommend eleven or twelve pounds per acre, if red clover only were sown. If alsike is included, eight or nine of red clover and two of alsike. Larger quantities might be sown, and with advantage, possibly, in some cases, but as a general thing we advise the quantities suggested.

CABBAGE SEED—ELECAMPANE.

Please let me know where I can procure some of Sutton's earliest Drumhead cabbage seed mentioned a few times in your columns. Some time when you are giving advice on weeds, will you tell how to exterminate from pasture Elecampane, a weed that grows about four feet high, with a blossom on like a large dandelion; looks some like tobacco. I sent and got "Farm Weeds of Canada," as you advised, but I do not find this one. I wish you would give us a few good articles on the growing of sugar beets, and the implements used. Those articles you gave us last spring on how the crop was put in in different parts, and the implements used, and the amount of seed, were very interesting and instructive to me. B. A. W.

Ans.—1. Correspond with the firms of seedsmen advertising each year in "The Farmer's Advocate."

2. Elecampane is mentioned on page 147 of the latest edition of "Farm Weeds of Canada." It is a stout perennial, with a thick, mucilaginous root, and was introduced from Europe. It is classed with the tribe Inuleae, of the Sunflower family, containing a few of the plants known as Everlastings, which are weeds of secondary importance. It should yield to persistent cultivation designed to prevent the plants from appearing above the surface of the ground.

Free Until Cured



No man need be weak, no man need suffer from the loss of that vitality which makes life worth living. He can be made strong, magnetic, forceful and light-hearted, confident of his power both in business and society, free from spells of despondency, nervousness, lassitude and brain wanderings. I have a certain cure for Nervous Debility, Varicose, Rheumatism, Lame Back, Stomach, Liver and Kidney complaints, in my world-famous Dr. Sanden Electric Belt with Electric Suspensory, and I will give it absolutely free until a cure is effected. How can I do this? For two reasons. I have the certain knowledge that my Belt will cure, and I have confidence enough in mankind to wait for my money until I prove it. This is what every doctor should do, but I am the only one who has a remedy that will stand such a crucial test. For 40 years I have been curing thousands every year, and have made a tremendous success doing business on this basis. NOT ONE PENNY IN ADVANCE OR ON DEPOSIT, and if I fail it costs you nothing whatever. All I ask is that you pay me the usual price of the Belt when cured. I will leave you to be the judge, and will take your word for results, or for cash I give full wholesale discount. Forty years' continuous success has brought forth many imitators. Beware of them. You can try the original, the standard of the world, free until cured, then pay for it. Call, or send for one to-day; also my two illustrated books, giving full information, free, sealed, by mail.

Dr. A. F. Sanden,

140 YONGE STREET,

TORONTO, ONTARIO

Office Hours—9 to 6. Saturdays until 9 p. m.

275 BURLINGTON SHORTHORNS 275

3 Choice Imported Scotch Shorthorn Bulls—yearlings.
1 Imported 2-year-old Bull, red—an extra sire.
10 Bulls, 9 to 16 months old—all by imported sire.
30 Choice Young Cows and Heifers—mostly bred or have Calves at foot. Long-distance telephone. Farm 1/2 mile from Burlington Jct. Sta., G. T. R.

J. F. Mitchell, Burlington, Ont.

We are offering 15 choice young

SHORTHORN BULLS

of serviceable age. Among them are high-class herd-headers. We can supply females of all ages. Farms close to Burlington Jct., G. T. R.

W. G. PETTIT & SONS, FREEMAN, ONT.

INVERNESS SHORTHORNS

I can supply Shorthorns of all ages, with richest Scotch breeding and high-class individuality.

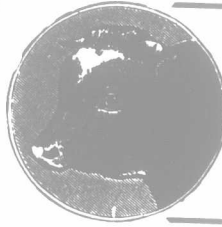
W. H. EASTERBROOK, Freeman, Ont.

Imp. Scotch Shorthorns—When looking for Shorthorns, be sure to look me up. Young bulls fit for service, and females all ages; bred in the purple, and right good ones. A. C. Pettit, Freeman, Ont.



Maple Leaf Shires, Shorthorns, Hampshire Hogs 1- and 2-yr.-old Shire stallions, females from yearling fillies up; Shorthorns, both bulls and heifers; a choice lot of young Hampshire pigs, both sexes, beautifully bred.

PORTER BROS., APPLEBY P.O., BURLINGTON STA. Phone.



30 HEIFERS AND 29 BULLS PRESENT OFFERING.

Bred right, made right and at prices to make you feel right. Come early and get your choice. List of these, with catalogue, will be mailed to those who ask for them.

H. CARGILL & SON, CARGILL, ONT.

H. SMITH, EXETER, ONTARIO.

Scotch Shorthorns

Extra choice young bulls and heifers for sale. Write for what you want. Farm adjoins town.

Please Remember to Mention "The Farmer's Advocate" When Writing

Troubled With Constipation For Years.

Any irregularity of the bowels is always dangerous to your health and should be corrected at once for if this is not done constipation and all sorts of diseases are liable to attack you.

Milburn's Laxa-Liver Pills cure Constipation and all Stomach, Liver and Bowel complaints.

Mr. Henry Pearce, 49 Standish Ave., Owen Sound, Ont., writes:—"Having been troubled for years with constipation, and trying various so-called remedies which did me no good whatever, I was persuaded to try Milburn's Laxa-Liver Pills. I have found them most beneficial; they are, indeed, a splendid pill, and I can heartily recommend them to all those who suffer from constipation."

Price 25 cents a vial or 5 for \$1.00 at all dealers, or sent direct on receipt of price by The T. Milburn Co., Limited, Toronto, Ont.

CHERRY BANK AYRSHIRES! Now is the time to order your bull calf, sired by Netherhall Milkman, the first-prize aged bull at Canadian National Exhibition, Toronto, and champion of the breed at Ottawa in 1909. Can fill orders for yearling bulls fit for service, or last fall calves. Females any age. Nothing but the best in our motto. Satisfaction guaranteed. Visitors welcome. P. D. McARTHUR, North Georgetown, Que. 3/4 mile from Howick station.



Hillview Ayrshires!

For sale: Females of all ages, bred for dairy purposes, with large teats, deep milkers, and large in size. Also a few extra good young bulls on hand. Winchester station, C. P. R.

A. Kennedy & Son, Vernon, Ont.

Trout Run Ayrshires—My present offering in several heifers and cows in milk, a number of heifer calves, 3 young bulls fit for service, one of them from imp. sire and dam; dam's record 45 lbs. a day. My herd are heavy producers and critically selected. Am also offering 20 Toulouse geese at \$4 and \$5 a pair.

HILLCREST AYRSHIRES—Bred for production and large teats. Record of Performance work a specialty. Fifty head to select from. Prices right.

FRANK HARRIS, Mount Elgin, Ont.

Ayrshires—Four young bulls, all bred on dairy lines, out of famous dams; fashionable in color, as well as in breeding. Will be sold worth the money. Females all ages.

N. DYMONT, Clappison's Corners, Ont.

A well-known judge often relieved his judicial wisdom with a touch of humor. One day, during the trial of a case, Mr. Gunn was a witness in the box, and as he hesitated a good deal, and seemed unwilling, after much persistent questioning, to tell what he knew, the judge said to him: "Come, Mr. Gunn, don't hang fire."

After examination had closed, the Bar was convulsed by the judge adding: "Mr. Gunn, you can go off; you are discharged."

This contractor got results. He knew how to feed his men.

Some years ago a contractor building a railroad in a warm climate was troubled a great deal by sickness among the laborers.

He turned his attention at once to their food and found that they were getting full rations of meat and were drinking water from a stream near by.

He issued orders to cut down the amount of meat and to increase greatly the quantity of Quaker Oats fed to the men.

He also boiled Quaker Oats and mixed the thin oatmeal water with their drinking water.

Almost instantly all signs of stomach disorders passed and his men showed a decided improvement in strength and spirits.

This contractor had experience that taught him the great value of good oatmeal.

QUESTIONS AND ANSWERS. Miscellaneous.

JOINT PROMISORS—VOTING.

1. Is one on a joint note as liable as the other until the note is paid?
2. If a farmer's son is assessed as owner, could he be kept from voting at a Parliamentary election, he not being owner?

Ans.—1. Both are fully liable.
2. Not for the reason suggested.

FLAXSEED FOR CALVES.

What is your opinion about feeding flax meal to calves, along with separated milk. Some say, scald a handful of flax meal and mix with the milk; others say, don't scald the meal. About what age should a calf be before starting to feed flax meal? Would you prefer ground oil cake, or the full strength of the ground flax?

Ans.—Flaxseed is the best thing we know of to feed young calves, along with skim milk. The oil in the flax is especially well adapted to substitute for the fat removed from the milk. Oil cake is the residue remaining, after most of the fat has been expressed, and is, therefore, lacking, to a considerable extent, at least, in the very element in which skim milk is deficient, although common, old-process oil-cake meal is still richer in fat than any of our ordinary staple grains. But pure flaxseed is a great deal better than either, especially for young calves. It should not, however, be fed in any large quantity, as it is said to be liable to affect the joints of the legs if fed too freely. The best way of feeding it is to soak the whole seed for twelve hours in water, 1 to 6 parts, by volume, then boil slowly and simmer to a jelly, feeding of this about a third of a teacupful in warm milk, gradually increasing to about a cupful as the whole milk is withdrawn. This need not be continued many weeks, as the calf will soon learn to eat dry meal. An excellent mixture is composed of one part pure ground flaxseed, two parts finely-ground corn meal sifted, and two parts finely-ground oats sifted, the whole well mixed.

A NON-PAYING GRAIN-BUYER.

A called at B's on April 1, 1909, and asked if he had any oats to sell. B said he had. A told B to bring them to the station the following week, and he would give B forty cents a bushel. A never stated that he was buying for another party. B took a load to the station, and on his way there he met others who had delivered grain and who had received payment for the same from A. On the way there, B followed directly after some other loads. Upon arriving at the station, the teamsters assisted each other in unloading, B being about the fourth load. After emptying the grain of the other three loads who were ahead of B, they began to carry B's grain off the scales, after being weighed, into the car. While doing so, a stranger, C, came along and assisted, B not knowing at the time who C was, but supposed he was hired by A to help unload. When B's bags were unloaded, the teamsters heard a train coming, and A being busy weighing grain, B gathered his empty bags, and said to A, "There's a train coming and I have a team of colts and don't want a runaway, being as you are busy, I'll go home, and you can pay me some other time."

Some time after, B asked A for the money. A told B to make out his bill and give it to him, and he would send it to C, A saying that he bought the grain for C, and that C still owed A.

B has asked A for the money twice since, and A says he wrote to C, but cannot get an answer. Finally A asks B to write to C about the matter, and A says if C fails to answer, then we will have to sue him.

B then stated to A that he would look to A for the money.

A now says that he never heard B say at the station, "You can pay me some other time."

1. Who should B look to for payment?
2. What proceedings should B take?

SUBSCRIBER

Ans.—1. A.
2. B should notify A that unless he pays by a date certain (to be stated in the notice), suit will be brought against him. Then, in the event of non-compliance with such notice, A should be sued for the amount without more delay.

The Only Roofing With A Lightning Guarantee

THOUSANDS OF DOLLARS LOST

Thousands of dollars are lost each year through lightning. Yet the farmers of Canada need never lose another cent from this cause if they will roof their buildings with PRESTON Safe-Lock Shingles—the ONLY roofing GUARANTEED proof against lightning.

We don't charge you a cent for this lightning guarantee. It's absolutely free. Yet no other guarantee actually means as much to the Canadian farmer as this.

With a PRESTON Shingled roof your barn is SAFE, no matter how severe the electrical storm. You can look out of your window and see barns burning on other farms, yet feel absolutely secure about your own PRESTON Shingled barn, and the horses and cattle, the machinery and crops stored within it.

We could not afford to give this Free Lightning Guarantee did we not know the superior lasting qualities of PRESTON Shingles. If a PRESTON roof were likely to wear out in a few years, it would not be proof against lightning.

PRESTON Safe-Lock Shingles are made and galvanized according to British Government Specifications—the only shingles that are.

The British Government, you know, is the most particular buyer in the world. Ordinary metal shingles could not pass their Acid Test for galvanizing.

This test is more severe on the galvanizing than twenty years of Canadian weather. Yet PRESTON Shingles will pass this test.

Shingles galvanized according to these Specifications are good for twice the service of shingles galvanized in the ordinary way. That is why we can safely give you our Lightning Guarantee.

You don't get a Free Lightning Guarantee with other shingles. Neither do you get shingles SAFE-LOCKED on all FOUR sides. Nor shingles with the nailing fully protected against the weather. Nor shingles made according to British Government Specifications. Nor shingles so easy to lay.

But we cannot tell you in this space all the superior features about PRESTON Safe-Lock Shingles or give other roofing information of vital interest to you. So we've issued a new booklet, "Truth About Roofing."

We should charge something for this booklet, as it contains information of real value to anyone who has a building to roof. But we will send it FREE as a reward to all who cut out, fill in and mail the coupon to us.

Just you send the coupon today.

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Please send me your new booklet, "Truth About Roofing." I am interested in roofing, and would like complete information about PRESTON Safe-Lock Shingles, British Government Specifications and Free Lightning Guarantee.

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P. O. Address.....
County..... Province.....

AYRSHIRES AND YORKSHIRES
Can fill orders for car lots of Ayrshires, or for good grade dairy cows. Young bulls, cows, heifers or calves of choice breeding. Orders taken for imported stock for 1910. A few young Yorkshires. Write us for anything you need in above lines.
Long distance Phone
ALEX. HUME & CO., MENIE, ONT.

Stonehouse Ayrshires
36 head to select from. All imported or out of imported sire and dam. For sale: females of all ages. Am now booking orders for bull calves.
Hector Gordon, Howick, Quebec.

STOCKWOOD AYRSHIRES
Are producers of milk testing high in butter-fat. In my herd I have a range of selection, either imp. or Canadian-bred, of either young bulls or females, unexcelled in Canada. Price and terms to suit purchaser. **D. M. WATT, ST. LOUIS STA., QUE.**

Springhill Ayrshires
Headed by two bulls whose dams have the highest official records in Scotland. Order a bull calf out of our best cows.
We can place you in all ages and sexes
Robt. Hunter & Sons, Maxville, Ont.

Bone Spavin

No matter how old the blemish, how lame the horse, or how many doctors have tried and failed, use Fleming's Spavin and Ringbone Paste

Use it under our guarantee—your money refunded if it doesn't make the horse go sound. Most cases cured by a single 45-minute application—occasionally two required. Cures Bone Spavin, Ringbone and Sidebone, new and old cases alike. Write for detailed information and a free copy of Fleming's Vest-Pocket Veterinary Adviser

Ninety-six pages, durably bound, indexed and illustrated. Covers over one hundred veterinary subjects. Read this book before you treat any kind of lameness in horses.

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78 Church St., Toronto, Ontario**

BRAMPTON JERSEYS

Canada's greatest Jersey herd offers male or female stock; imported or home-bred; show type or producers; one or a carload. 150 for sale. Phone.
B. H. BULL & SON, BRAMPTON, ONT.

CATTLE FATTEN QUICKER
—take on weight faster—make better beef—when deboned. Cows give more milk—and half the danger in shipping by rail or boat is eliminated.

KEYSTONE DEHORNER
does the work in 2 minutes. Cuts from 4 sides at once. Write for free booklet. R. H. MCKENNA, 219 Robert St. Toronto, Ont. Late of Picton, Ont.

Second Dispersion Sale

OF HOLSTEINS

At **CLOVER DELL STOCK FARM, BOS. ON, ONT.**, on **Wednesday, March 9th, 1910**
Commencing at one o'clock

MESSRS. NELLES & WOODLEY, Boston, Ont., will hold their second dispersion sale of purebred and high-grade Holstein cows and young stock, numbering about 35 head. The combined herd for the past two seasons at 90 cts per 100 lbs. milk have averaged \$75.30 per cow for season. The two stock bulls, Paul DeKol Canary King (imp.) and Teskey 2nd Mercena Posch, will also be included in the sale.

Terms—\$25.00 and under, cash; over that amount 8 months' credit on bankable paper; 6% per annum off for cash on all sums entitled to credit.

Trains will be met at Waterford on morning of sale. Lunch at noon. For further particulars write: **NELLES & WOODLEY, Boston, Ontario.**
JAS. DUNLOP, Auctioneer.

CENTRE AND HILLVIEW Holsteins

140 head, 45 females in R. O. M. Herd headed by Brookbank Butter Baron, Bonheur Statesman and Sir Sadie Cornucopia Clothilde. The average of dam, sire's dam and granddam is: milk in 7 days, 62.85 lbs.; butter in 7 days, 30.58 lbs. We have bulls born Mar., '09, to two weeks old for sale, from Record-of-Merit dams. Long-distance telephone. **P. D. Ede, Oxford Centre, Ont. Woodstock Sta.**

Fairview Herd

offers for sale a son of Rag Apple Korndyke. His dam is a daughter of Pontiac Korndyke, with an A. R. O. record of 43.08 lbs. butter in 7 days at two years. Price, \$150.00.

E. H. DOLLAR, Heuvelton, N. Y.
RRAR PRESCOTT.

Homewood Holsteins!

Headed by Grace Fayne 2nd's Sir Colanthe, closer related to the two greatest cows in the world than any bull in Canada. His dam Grace Fayne 2nd, the only cow in the world to produce a daughter with a record of 35.55 lbs. butter in 7 days. G. T. R. station on farm. **M. L. & M. H. HALEY, Springfield, Ont.**

IMPERIAL HOLSTEINS

Head your herd with a son of the champion Canadian butter-bred bull, Tidy Abbecker Mercena Posch. Dam and sire's dam average 28 lbs. butter in 7 days, 110 lbs. in 30 days; 4.90 fat.

W. H. SIMMONS, New Durham, Ont.

FOR SALE: AT A MODERATE PRICE 1 year old, **Choice-bred Holstein Bull** Sired by Pontiac Hermes. Grand sire that wonderful bull, Hengerveld DeKol. Dam Madia Netherland DeKol. Sire of dam, Netherland DeKol Abbecker, R. McNamara, Stratford, Ont.

CALVES Raise Them Without Milk. Booklet free. The Steel, Briggs Seed Co., Toronto, Ont.

When Writing Mention This Paper.

QUESTIONS AND ANSWERS. Miscellaneous.

GOOSE WHEAT—DOCKING A TWO-YEAR-OLD.

1. Is goose wheat as good an egg-producer as fall wheat?
2. What place do you give it as a beef-producer?
3. Would you advise docking a colt coming two years? Is there any danger of bleeding too much? N. M. K.

Ans.—1. We have never fed goose wheat to poultry, but see no reason why it should not be satisfactory. It is very hard, but the gizzard of a chicken should be able to reduce it, and it is rich in nutrients.

2. First-class, if ground fine and mixed with other meals.

3. As well now as any time. There is no danger of excessive bleeding, if cauterized with a hot iron, which is the common practice, a cord being tied around the tail above the dock, till danger of bleeding is past.

SILO FOR FIFTEEN CATTLE.

1. I intend building a silo this coming spring, and would like to know about the size to build for keeping fifteen mature cattle over winter.

2. Do you advise building a silo large enough so as to have about one-third of silage left over for summer feeding?

3. How many acres of hill corn (3 ft. 6 in. by 3 ft. 6 in.) should I plant to fill the size silo I would need, and what is the best variety of corn to grow? F. J. S.

Ans.—For a feeding period of 200 days, allowing the fairly liberal quantity of 40 pounds per head per day, you would want a silo with a capacity of 60 tons. This would be provided easily by a silo twelve feet in diameter and thirty feet high, allowing considerable space for settling. Such a silo might be made to hold 70 or 75 tons, by refilling.

2. Where only about fifteen head of stock are kept, we would recommend building the one silo large enough to ensure some silage being left over for summer feeding. When a larger stock is kept, we would prefer having two silos, since the surface may then be lowered faster, day by day, with some slight advantage in the quality of the silage as fed. In your case, we would advise the size mentioned above.

3. A good crop of Early Leaning should yield fifteen tons per acre in your locality. Five acres should fill your silo once, though it would be wise to plant six or eight, as a surplus may be fed dry, either husked or with the ears on.

PECULIAR TASTE IN MILK—CREAM DIFFICULT TO CHURN.

We have two Shorthorn grade cows, five and eight years old. One calved in May, 1909, the other in June, 1909, and were bred again in August and September. They are in thin condition, but strong and hearty. They are fed on silage and cut out straw and pulped turnips, mixed about two days ahead of feeding, and about three quarts of meal (oats 2 parts, peas 1, barley 1), twice a day, and drink from a good spring creek. Are stabled in a new, warm, well-ventilated stable.

The milk has a peculiar taste, and also the butter, cream being very hard to churn.

What do you think is the trouble? If necessary, where could I send sample of milk to be tested? E. H.

Ans.—The best way would be to give each of these cows about 1 1/2 pounds of Epsom salts in the form of a drench, and then pasteurize the milk, which would overcome the peculiar taste, and make the cream more easily churned. If the milk is to be used for direct consumption, pasteurize before using, but for that part which is to be churned, it would be sufficient to pasteurize the cream. Heat it to a temperature of 160 degrees, allow to stand for ten minutes, then cool to 70 degrees, add about 1 pint of good-flavored sour-skim milk or buttermilk, and allow to stand in a warm place until it thickens, when, no doubt, it will churn at the usual temperature. H. H. BEAN.

"Peerless" The fence that stands up against every strain

Our heavy all No. 9 PEERLESS Fence, made from hard steel, English Wire, has double the strength ever required in a wire fence. The galvanizing, by the "acid test," stands twice as much as that on ordinary fence wire. This means many years longer life—greater value. Do you want the best?

the fence that saves expense

because it needs no repairs and lasts a lifetime. It is rust that destroys wire fences. English Wire Manufacturers know how to prevent this. To this English Wire add the PEERLESS method of construction and the PEERLESS lock and you have a fence without a rival. We are manufacturers of high grade farm, poultry, ornamental fencing and gates. Write for book.

THE SANWELL ROXIE WIRE FENCE CO., LTD.
DEPT. 15 HAMILTON, ONT., WILSON, MAN.

DISPERSION SALE

OF OVER

40 Head Holstein - Friesian Cattle

AT MADOC, MARCH 25th, 1910,

Including the great bull, Sara Jewel Hengerveld's son, whose dam has an A. R. O. butter record: In 7 days, of 28.12 lbs.; in 30 days, of 110.18 lbs. The only cow in Canada that ever produced in official test 100 lbs. milk in one day. All females old enough are bred to this great bull, and by the time of the sale there should be 20 calves sired by him. Catalogues will be ready March 1. Positively no reserve.

J. A. CASKEY, Madoc, Ont.

MAPLE GROVE'S SPECIAL OFFER.

A few exceptionally rich-bred bulls from one to four months old. Individually as good as their breeding. Fit to head the best herds. None better, no matter what price you pay. If you want this kind write: **H. BOLLERT, CASSEL, ONT.**

For Sale—7 Holstein bulls: Tamworth Wwandotte cockerels and Buff Orpington hens. **BERTRAM HOSKIN, The Gully P.O., Ont.** Phone connection via Cobourg.

AVONDALE HOLSTEINS

Offers for sale high-class Holsteins all ages. Herd headed by Prince Hengerveld Pietje, a son of Pietje 22nd's Woodcrest Lad, out of Princess Hengerveld, a daughter of Hengerveld DeKol, with record of 20.34 lbs. butter at 23 months. We also offer some fine young Yorkshire pigs of choice breeding. Putnam station, near Ingersoll.

ARTHUR C. HARDY, BROCKVILLE, ONTARIO

Holsteins FOR SALE: COWS AND HEIFERS

All ages. Also bull and heifer calves, including daughter and granddaughters of Pieterje Hengerveld Count De Kol, whose TWO famous daughters made over 32 lbs. butter each in 7 days, and sire of the "world's champion milking cow," De Kol Creamelle, which gave 119 lbs. in one day, over 10,000 lbs. in 100 days. Also for sale daughters of De Kol's 2nd Mutual Paul, sire of Maud Mutual De Kol, which gave over 31 lbs. butter in 7 days, also granddaughters of Hengerveld De Kol. Other leading breeds represented. Putnam station, near Ingersoll.

H. E. GEORGE, CRAMPTON, ONTARIO.

THE MAPLES HOLSTEIN HERD

of Record-of-Merit cows, headed by King Posch De Kol. Only two sons of our old Record-of-Merit stock bull, Lord Wayne Meechthilde Calamity, left for sale, from cows with good official backing; also a few bull and heifer calves sired by King Posch De Kol and from Record-of-Merit dams.

WILBURN RIVERS, FOLDEN'S, ONTARIO.

Maple Glen HOLSTEINS

For sale: Two 3-year-olds, bred to a son of Brown Bros.' 30-lb. cow, due to freshen next March. Netherland Johanna Mercena, a 15.70-lb. Jr. 2-year-old, due last of December to King Fayne Segis, a son of world's champion cow. Also two bull calves, from tested dam, born last June, sired by King Fayne Segis. **G. A. GILROY, Glen Buell, Ont.** Long-distance phone.

E. F. OSLER, BRONTE, ONTARIO.

Lakeview Holsteins

Herd headed by Count Hengerveld Fayne De Kol, son of Pieterje Hengerveld's Count DeKol, who has five daughters averaging over 30 lbs. butter in 7 days, and whose dam (26.30 lbs. in 7 days) has a daughter with a record of over 35 lbs. in 7 days. Five bull calves from nine months old by appointment. **E. F. OSLER, BRONTE, ONTARIO.**

HOLSTEINS AND YORKSHIRES

Young bulls for sale from such cows as Snowflake Queen De Kol of Minster, testing 4.8; Queen De Kol, 4.4, and others equally good. Cows giving 12,000 to 15,000 lbs. yearly. **RICHARD HONEY, Brickley, Ont.** Northumberland Co.

High-class Holsteins

Head of herd, Pietje Korndyke Lad. Two nearest dams average 26.09 lbs. butter in 7 days. His sire's dam, Pieterje 22nd, has a record of 31.62 lbs. butter in 7 days. Present offering: 2 heifers, due to calve in April, at a bargain before Dec. 1 to make room; also 2 bull calves by Manner Johanna DeKol, out of officially-tested cows.

WM. C. STEVENS, PHILLIPSVILLE, ONT.

Silver Creek Holsteins

Have official records from 17 to 22 lbs. for 4-year-olds, 11 lbs. butter-fat for 2-year-olds. My stock bull has high official backing. For sale are a number of heifers and heifer calves, and 12 bulls, from 1 to 15 months of age, all sired by S. B. and out of Record cows; a high-class lot.

A. H. TEEPLE, Currie's P.O., Woodstock Sta. Phone connection.

DON'T Buy a HOLSTEIN BULL till you get my prices on choice goods from thirteen months down, from best producing strains.

"Fairview Stock Farm," FRED ABBOTT, Harrietsville Ont.

EVERGREEN STOCK FARM

offers choice young Holstein Bulls, from 10 to 11 months, sired by Sir Mercena Favorite, whose dam and gr. dam averaged 80 lbs. milk per day, and 24.60 lbs. butter per week. Their dams also in A. R. O. Also choice females for sale. **F. E. PETTIT, Burgessville, Ont.**

MUSKRAT

ALL KINDS RAW FURS, CALFSKINS, HIDES, ETC. HIGH PRICES. Write for our complete Price Lists. **E. T. CARTER & CO., 84 Front St. E., Toronto, Ont.** We pay all express and freight charges. Prompt returns in cash.

QUESTIONS AND ANSWERS. Miscellaneous.

SULPHUR FOR LICE.

If sulphur is fed to cattle and sheep, will it kill the lice on cattle and ticks on sheep? If so, how much should be fed to each animal, and how often?

R. J. M.

Ans.—We know of no authority for the theory which prevails to that effect, though we think it may possibly be well grounded, as sulphur enters into the circulation of the blood, and escapes through the pores of the skin, and might affect the vermin. Some stock men practice mixing sulphur with the salt, placed where the animals may take it at will. Some use sulphur as an outward application for getting rid of lice, sifting it into the hair or wool.

STRAWBERRY PLANTS PER ACRE.

1. Kindly tell me how many plants it would take to plant one acre of strawberries, and how much per 1,000 should I pay?

2. Has black muck or peat any value as a fertilizer?

W. C.

Ans.—1. If planted one each 18 inches, in rows 4 feet apart, 7,145 plants would be required for an acre. For common varieties, \$3 per thousand is an ordinary price in the locality of London, Ont.

2. Dry muck is a good stable absorbent. If applied to land, by itself, it should first be weathered (decomposed) somewhat. All classes of black muck have manurial value, some very slight, and others much greater, depending on conditions under which the material was formed.

HENS FAT.

Is it possible to have your hens too fat to lay? If so, what should you feed them? Would you prefer bran rather than other strong feed, as corn or wheat?

L. S. B.

Ans.—Yes; but we do not think this is very commonly the case, excepting with old hens, fed heavily on corn and other rich grain, with little exercise. Cut down their rations, bury their grain in deep litter, and make them scratch. Provide grit, lime, and some lean meat; also green food, notably clover leaves, either dry or steamed. Considerable use might be made of wheat bran, either dry or in mash. Some keep bran in the hopper before their birds constantly. To induce exercise, buckwheat and millet may be fed in the litter, with a full feed of some other grain at night.

RATION FOR BULL CALF AND MILCH COWS—SWEENIED COLT.

1. Am raising a pure-bred Shorthorn bull calf that was calved November 12th, 1909. Am feeding at the present time, 1 part oats, 1 part barley, 2 parts buckwheat, ground together as fine as possible; the chop is then mixed with equal parts of meal, old process, calf is fed separator milk, and what meal it will eat up clean, with clover and blue-grass hay. Could this ration be improved? Calf is thriving well.

2. Is oats 1 part, barley 1 part, buckwheat 2 parts, ground, a suitable feed for milch cows, with clover and blue-grass hay and straw for roughage? If not, what should be added to improve?

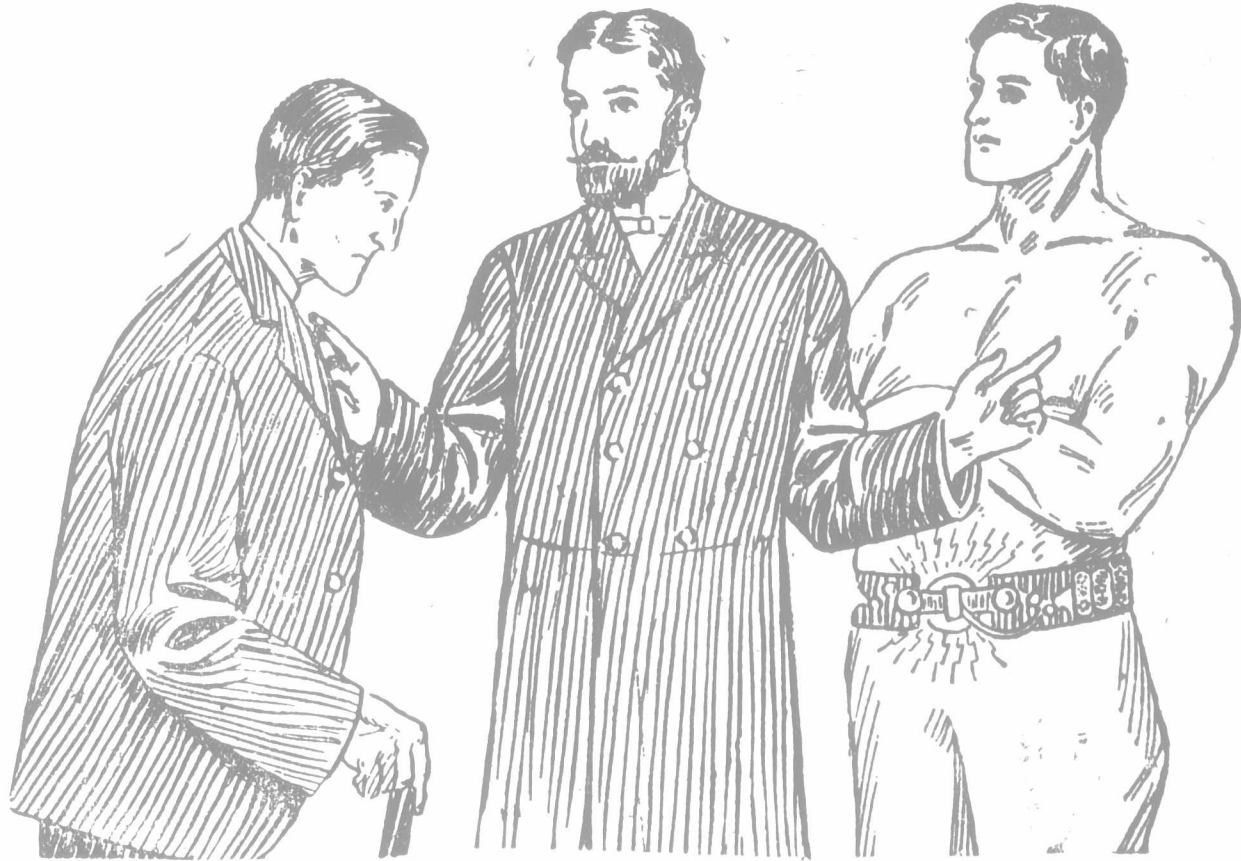
3. Colt, three years old, is sweened in left shoulder; blistered with Gombault's Caustic Balsam and given rest; shoulder is getting better. Will colt be able to do heavy work in spring, and is there any danger of being sweened again, if recovered by spring?

J. E. L.

Ans.—1. This is a fairly good ration for a three-months' calf, and, since he is doing well on it, you would perhaps do best to let well enough alone. The proportion of oil cake is rather large, and might be reduced to a third of the total in place of a half.

2. Yes; first rate, unless you find that the buckwheat produces a white, tallowy butter; this, we judge, is not likely to result from the proportions you are using.

3. As the colt is getting better, the probability is that he will be able to work in spring, but should not be put to heavy work if avoidable. It would be well to repeat the treatment, even though he may be improving.



How I Cure Weak, Puny Men WITHOUT COST UNTIL CURED

Give me men broken down from hard work or worry; from any cause which has sapped their vitality. Let them follow my advice for three months and I will make them as vigorous in every respect as any one of their age.

I will not promise to make a Hercules out of a person who was never intended by nature to be strong and sturdy. Even that person I can make stronger, but the person who has been strong and has lost strength I can make as good as they ever were.

A man who is nervous, whose brain and body are weak, who sleeps badly, awakes more tired than when he went to bed, who is easily discouraged, inclined to brood over imaginary troubles, who has lost ambition and energy to tackle hard problems, lacks the animal electricity which Dr. McLaughlin's Belt supplies.

The whole force of vitality in your body is dependent upon your animal electricity. When you lose it in any manner my Belt will replace it, and cure you.

Dear Sir,—I came to Brantford a little over two years ago, crippled up with Rheumatism so bad I had to be carried into the house, and was bedfast for six months. I was treated by three different doctors. I went to Preston and took the baths, and received slight benefit from them. I then bought one of your Belts, and at that time considered my case hopeless. I have improved steadily since wearing it, and have been able to resume my business as builder and contractor. I have recommended your Belts to many as a sure cure for Rheumatism, even in its worst form, as I was about as bad as any one could be when I got your Belt, which has, I am glad to say, completely cured me. The Rheumatism had affected my heart, and it has greatly improved me in that respect.

ANGUS McDONALD, 9 Buffalo St., Brantford, Ont.

Letters like that tell a story which means a great deal to a sufferer. They are a beacon light to the person who has become discouraged from useless doctoring. I get such letters every day.

My Belt has a wonderful influence upon tired, weak nerves. It braces and invigorates them, and stirs up a great force of energy.

I make the best electrical body appliance in the world, having devoted twenty years in perfecting it. I know my trade. My cures after everything else has failed are my best arguments.

Give me a person with pains in the back, a dull ache in the muscles or joints, "come-and-go" pains in the shoulders, chest and side, Sciatica in the hip, Lumbago, Rheumatism, or any ache or pain, and my Belt will pour the oil of life into the aching body and drive out every sign of pain. No pain can exist where my Belt is worn.

Dear Sir,—I have praised your Belt at every opportunity, and I cannot say too much about it, as I am a man now. Before I was a wreck. I am pleased to tell you I am quite cured, and that your Belt has done more for me than all the doctors could do in the Old Country. I was laid up for three years, and took a good deal of medicine, but it did me no good. I can only say that your Belt has done wonders for me—almost a miracle, as I was given up for incurable by most of the doctors, and I cannot give you too much praise. I thank you for your interest in me, and any time I can say anything for the benefit of your Belt I will do so, as I think if more tried it it would save a great deal of pain, as I know by experience, if they follow your advice, it will be a cure for them. Again thanking you for helping me to be a man once more and able to do a good day's work, I remain,

W. ATWELL, Bolton, Ont.

They come every day from everywhere. There is not a town or hamlet in the country which has not cures by Dr. McLaughlin's Electric Belt.

The confidence I have in my remedy enables me to make the offer I do, and any man who will give me reasonable security while he uses my Belt need not pay a cent until he is cured.

Now, what does this mean to you, dear reader? If you are not what you ought to be, can you ask any better proof to make you try it? If there is a remedy which is as simple, as easy to use, as sure to cure, and as cheap as Dr. McLaughlin's Electric Belt, I have not seen one. You must try it. In justice to yourself and to those who look to you for their future happiness, try it now. Act this minute. Such a matter ought not to be delayed.

It's as good for women as for men. Worn while you sleep, it causes no trouble. You feel the gentle, flowing heat from it constantly, but no sting, no burning, as with old-style belts.

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those dam has an ys, of 110.18 lbs. lbs. milk in one d by the time of es will be ready

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CKVILLE, ONTARIO.

RS ing grs e of one dual ind- ation, near Ingersoll

, ONTARIO.

Two 3-year-olds, bred of Brown Bros. 30-lb. to freshen next March and Johanna Mercedis last of December to world's champion cow. Tested dam, born last year. G. A. GILROY, phone.

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Head of herd, Pietje Korndyke Lad. Two butter in 7 days. His a record of 31.62 lbs. 2 heifers, due before Dec. 1 to make by Mannor Johanna

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17 to 22 lbs. for 4-butter-fat for 3-year- old backing. For sale months of age, all sired E. Currie's P.O. Phone connection.

offers choice young to 11 months, sired se dam and gr. dam and 24.60 lbs. butter A. R. Also choice Burgessville, Ont.

HIGH PRICES. ss and Freight returns in cash.

Could Not Sleep In The Dark.

Doctor Said Heart and Nerves Were Responsible.

There is many a man and woman tossing night after night upon a sleepless bed. Their eyes do not close in the sweet and refreshing repose that comes to those whose heart and nerves are right. Some constitutional disturbance, worry or disease has so debilitated and irritated the nervous system, that it cannot be quieted.

Mrs. Calvin Stark, Rosmore, Ont., writes:—"About two years ago I began to be troubled with a smothering sensation at night, when I would lie down. I got so bad I could not sleep in the dark, and would have to sit up and rub my limbs, they would become so numb. My doctor said my heart and nerves were responsible. I saw Milburn's Heart and Nerve Pills advertised and got a box to try them. I took three boxes and can now lie down and sleep without the light burning and can rest well. I can recommend them highly to all nervous and run down women."

Price 50 cents per box or 3 for \$1.25 at all dealers, or mailed direct on receipt of price, by the T. Milburn Co., Limited, Toronto, Ont.

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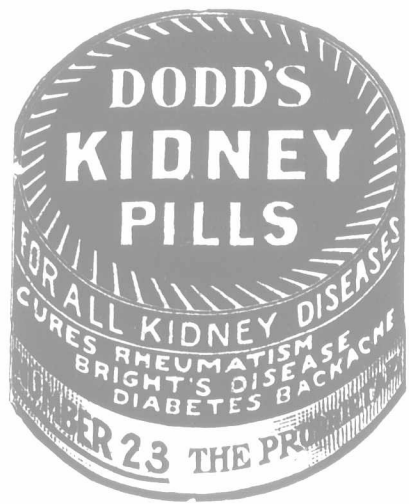
They are unequalled for Biliousness, Sick Headache, Constipation, Heart Palpitation, Indigestion, Anemia. Write for sample and booklet of testimonials. 50c. a box at all dealers, or THE ELECTRIC BEAN CHEMICAL CO. LIMITED Ottawa.

There is more than one joke concealed among the dry statistics of the United States Postal Guide. For instance, there is the name of a post office in a little hamlet in Lincoln County, West Virginia.

The inhabitants of the neighborhood made the usual petition for the establishment of an office, and the Department, after determining to grant the request, made inquiry as to the name which the petitioners wished the office to bear. "We don't care what you call it," came the reply, "only we want a post office." And Wewanta it remains to this day.

A year ago a manufacturer hired a boy. For months there was nothing noticeable about the boy, except that he never took his eyes off the machine he was running. A few weeks ago the manufacturer looked up from his work to see the boy standing beside his desk.

"What do you want?" he asked.
 "Want me pay raised."
 "What are you getting?"
 "Three dollars a week."
 "Well, how much do you think you are worth?"
 "Four dollars."
 "You think so, do you?"
 "Yessir, an' I've been 'inkin' so for three weeks, but I've been so blamed busy I ain't had time to speak to you about it."
 The boy got the raise.



QUESTIONS AND ANSWERS. Miscellaneous.

A KICKING FILLY.

Have a filly rising three years old that is quiet and gentle every way until hitched, but will then switch and kick over the tongue and seems full of bad temper. W. K.

Ans.—The early education of the colt has, evidently, been neglected. If she had been trained along the lines suggested in the prize essays on the training of colts recently published in these columns, the trouble might have been avoided. The article in our February 3rd issue, on how to stop a horse from kicking in harness, may be helpful in solving the problem.

MAMMOTH CLOVER—FOAL'S KIDNEYS.

1. Will mammoth clover do well on the same ground the second year? Mine was good pasture all fall. If it grows well, is there any other reason the seed would not be good under favorable circumstances?

2. What is good to keep a foal's kidneys right? How much nitre could be given twice a week?

R. J. McR.

Ans.—The mammoth clover will probably remain and produce a crop this coming summer. If it does not, the pasturing last autumn may be held responsible, in part, at least. Mammoth clover is biennial under some conditions, and perennial under others, though it is not usually a long-lived perennial. It has a stronger habit of growth than the medium red, and is, accordingly, rather better adapted to thrive under adverse conditions once it has obtained a foothold. If the growth is satisfactory, we are aware of no reason why the yield and quality of seed should not be satisfactory.

2. Good feed, pure water, exercise and cleanliness. We strongly advise against the habitual administration of drugs. A carrot or two may be fed once a day with advantage.

WORMS IN PIGS—SWINE COMMISSION'S REPORT—CROSS OF FRENCH - CANADIAN COWS WITH HOLSTEINS.

1. Give cause, prevention, and cure, for worms in pigs.

2. Did the Government send a Commission to Denmark to inquire into the bacon industry in that country? If so, what is the result; is there any report to be had?

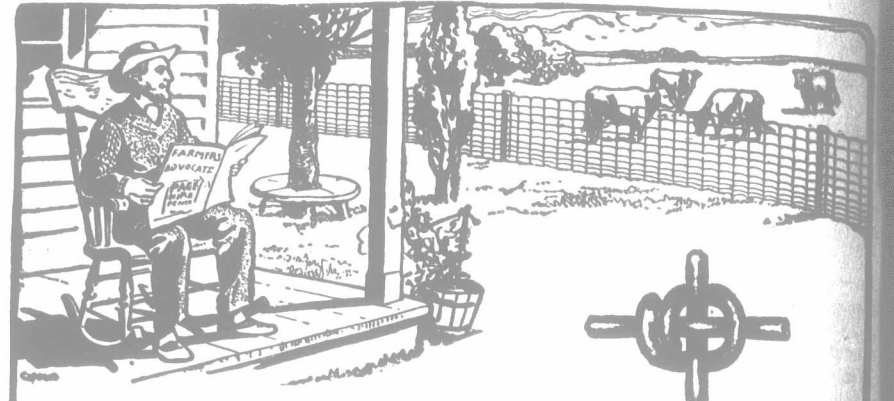
3. Do you think it would be a good cross to mate what we call native cows, I believe their official name is French-Canadian cattle, with a Holstein bull?

P. T. S.

Ans.—1. The hog is host for a variety of worms. Among the worms more common to the species are the pinworm, the long threadworm, the roundworm, (most common), thorn-headed worm, and the kidney-worm. The cause is not easily accounted for. The seat of pinworms is the rectum. They are usually about 1/2-inch long, and white. Clean out the rectum with injections of warm water. Infuse 2 ounces of quassia chips in one pint of boiling water, and, when cool, inject into the rectum; repeat in a week if necessary. The long threadworms are 1 to 1 1/2 inches long, and about as thick as a common thread. The roundworm, when fully developed, usually reaches 6 inches in length. The best remedy for these is the fluid extract of spigelia and senna, given in 1/2-ounce doses every four hours until it causes purging. Worm-seed oil in doses of 5 to 10 drops, given in a tablespoonful of castor oil, is also good. So is spirits turpentine, 15 to 20 drops, three times a day, followed by raw linseed oil, to purge. The thorn-headed worm is white, and 5 to 20 inches long. The spigelia-and-senna dose will bring them away; so will santonine, in from three to five grain doses, made into a pill.

2. Such a Commission was sent last summer to Denmark, and other European countries. A report has been prepared for publication, but at date of writing has not been issued to the public.

3. No doubt some good cows might be thus produced, but we question whether the results would be consistently satisfactory, as the breeds are so diverse in respect to size and other attributes.



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J. M. Wade, Secretary, LaFayette, Indiana.

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The Champion Flock, The Oldest Importers, The Largest Breeders in America.

See American Oxford Down Record. We are offering a number of first-class yearling ewes from imported sires, and bred to champion imported rams; also a number of ram and ewe lambs. Prices reasonable. HENRY ARKELL & SON, Arkell, Ont. Arkell, C. P. R.; Guelph, G. T. R. and Telegraph

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dale mares, and a few beautiful Welsh ponies will also be priced at attractive figures.

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Shropshires, Shires and Clydesdale—High class Shropshires, shearing rams and ewes, ram lambs and ewe lambs, from imported and Canadian-bred stock, show stuff; Shire and Clydesdale fillies; White Wyandotte cockerels and pullets. Prices right. W. D. Monkman, Bond Head P. O., Bradford or Beeton Stations.

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Shorthorn Bull and Females.

We now offer a choice 11-months-old red bull calf of good quality, straight lines and nicely finished. Dam, by Joy of Morning, is a good milker of the Mysie family. Sire the well-known Golden Comet. Have also for sale a good young red cow with heifer calf at foot, and a few choice heifers, all bred to Prince Victor. J. & D. J. Campbell, Fairview Farm, Woodville, Ont.

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Present offering: Excellent ewes, choice rams, and the best lot of lambs I ever offered; all sired by imported rams. Yorkshires of both sexes and all ages. Boars fit for service. Sows ready to breed. A high-class lot. Satisfaction assured.

J. A. CHESWELL, BOND HEAD P. O., ONT., BRADFORD or BEETON STAS.

Willowdale Berkshires!

Young sows ready to breed, boars ready for service, young pigs just weaned, all choice stock and bred in the purple. Everything guaranteed as represented. Long-distance phone. J. J. WILSON, Importer and Breeder Milton P. O. and Station. C. P. R. & G. T. R.

POPLAR LODGE SOUTHDOWNS AND BERKSHIRES—For sale: A high-class flock of Southdowns, also shearing rams and ewes, and ram and ewe lambs. Berkshires of both sexes and all ages; right good ones. An honest reputation is my motto. SIMON LEMON, Kettle Point, Ont., Aurora Station.

MAPLE LEAF BERKSHIRES For sale: Young sows bred and ready to breed; boars fit for service; also young pigs farrowed in March and April. Imp. sires and dams. Pairs not akin. C. P. R. and G. T. R. Josiah Lawrence, Oxford Centre P. O., Ontario.

Tamworths

A grand lot of young Tamworths, also young sows (dandies). Some just weaned. Some in farrow to first-class boars from best herd in England. Prices reasonable. Chas. Currie, Morrison Ont.

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With very nearly 100 sows in breeding, of modern type and high-class quality, our herd will stand comparison with any in Canada. We are always in a position to fill large or small orders with despatch. Long-distance phone. JAMES WILSON & SONS, FERUS, ONT.

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We expect to land a very select lot of English Yorkshire pigs at the farm in April, and nothing but really high-class breeding and show stock will be included in the lot. They will be from 6 months up to 2 years old, and will include 50 young sows in farrow, selected from the leading herds of England and Scotland. Parties wishing to secure new blood will find this a rare opportunity. Write right away for what you will want, and have your selections made early. Farm phone 2471 Hamilton. R. F. D. 2

D. C. Flatt & Son, Millgrove, Ont.

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For immediate sale: Several young sows due in farrow in March and April and May. Sired by imported boars, and out of sows the get of Colville Choice, Canada's champion boar in 1901-2-3-5, also choice lot of pigs, both sex, 2 to 4 months old. Choice Shorthorn bulls, 14 and 15 months old. Cargill blood. Syme and Lavender families. A half a dozen choice heifer calves yearlings and two year-olds in calf. Prices right. Bell phone A. A. Colwill, Box 9, Newcastle, Ont.

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are second none in America for type and quality. For sale are both sexes of all ages, from sows bred and boars fit for service down to youngsters. Herbert German, George, Ont.

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I am now offering some very choice young things of both sexes, of breeding age. A few Bronze turkeys and toms, and Red Cap cockerels and pullets. W. E. WRIGHT, Glanworth P. O., Ont.

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Imported and home-bred. Sows ready to breed. Boars fit for service, and younger ones either for meat or breeding. MAC CAMPBELL & SONS, HARWICH, ONT.

MAPLE GROVE YORKSHIRES.

To make room for the natural increase in our herd, we now offer for immediate disposal: A FEW CHOICE YOUNG BOARS (big type) ready for use, 10 sows, bred and ready to breed, 75 Sept. pigs, pairs not related. Mostly all sired by M. G. Champion—20102—champion and silver-medal boar at Toronto in 1907, and first as a three-year-old in the aged class in 1908, a grand stock getter. Many of our sows are prizewinners, and are of the best Yorkshire blood in England and Canada. A fair and square deal to everybody is our motto. We are putting prices low, because we must sell. Satisfaction guaranteed.

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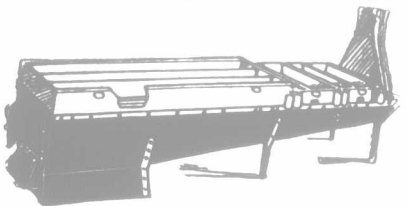
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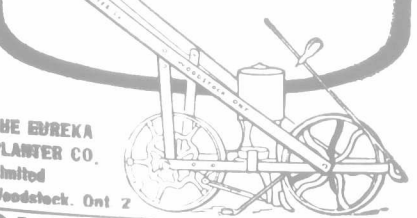
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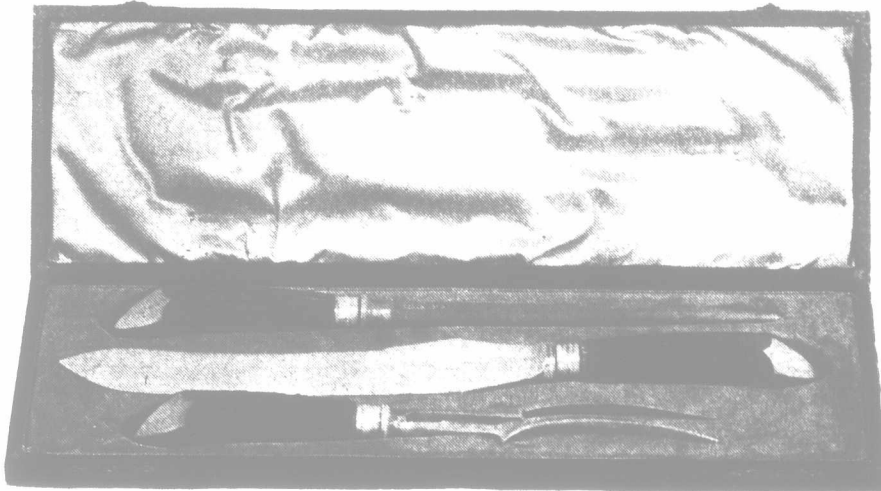
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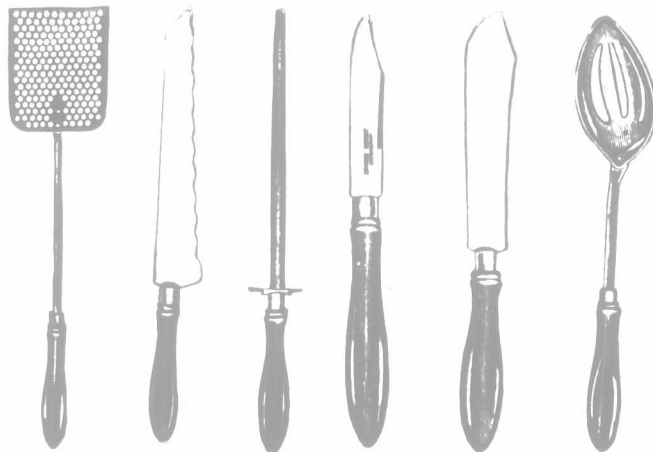
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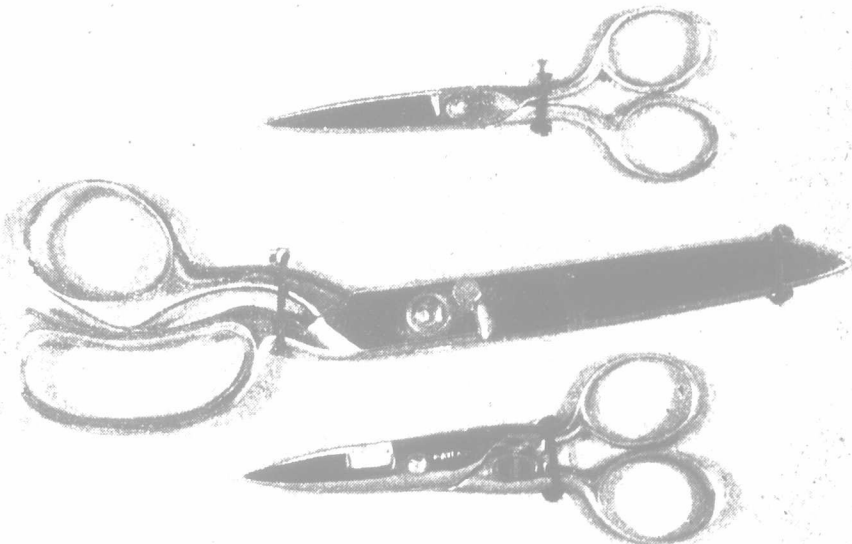
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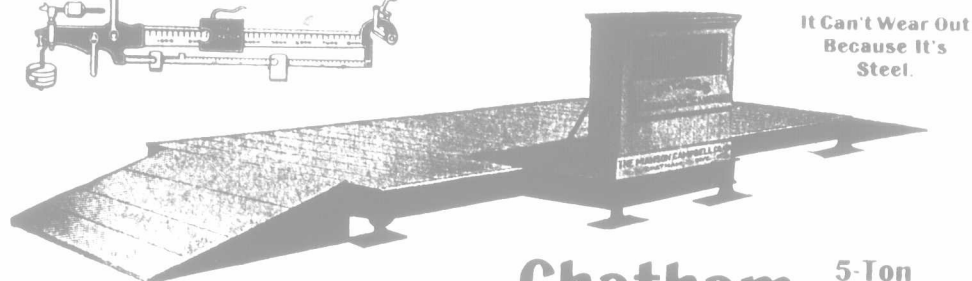
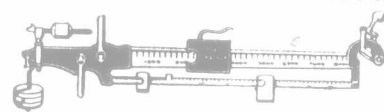
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No check rods, no frail parts to get out of order. Compound beam, finely finished, fully tested, shows full tare on lower section,—easily read, no chance of error. Poise on top beam runs on roller bearings; notches lock the beam by a touch at each 200 lbs. Odd weights shown by small poise on lower beam. Weighs with absolute, warranted accuracy up to FIVE FULL TONS—ten thousand pounds. Nothing about it to go wrong—built so well, tested so carefully.

FULL CAPACITY COMPOUND BEAM



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Chatham 5-Ton Pitless Scale.

Mr. W. F. MacLean, M. P. for East York, Says This About the Scale:

DONLANDS FARM, ONT., July 2nd, 1908.

"Some days ago the Chatham 5-Ton Pitless Scale ordered from you came to hand. The farm foreman and another man went to work at it in the morning, and in the afternoon they had it all set up and were weighing on it before supper. The directions were so explicit, and the parts so simple that they had no trouble in putting the scale together and verifying the weighing capacity. As well as being useful for weighing hay and straw and things of that kind, it is very useful for weighing cattle and other live stock. One good way of selling horses is to be able to give their exact weight; and the way to get most for cattle and hogs is to know their weight before leaving the farm. Your scales are admirably adapted for every kind of work on the farm."

W. F. MACLEAN.

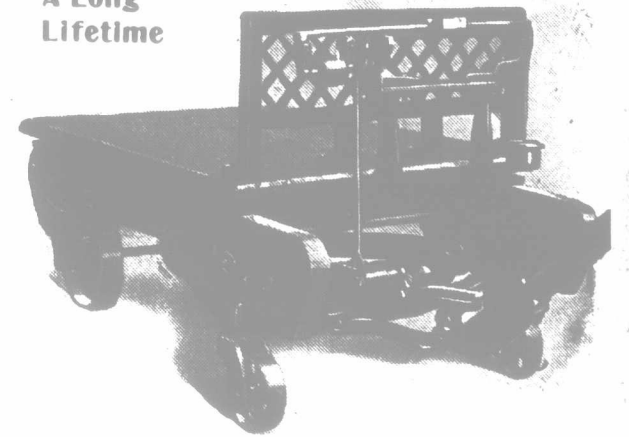
Big Enough for Any Scale Use. Your Farm Needs Such a Scale.

The Chatham's Platform is 8 x 14 feet—ample room for big load of hay, six fat steers, twelve hogs, etc. Platform can't sag, won't wobble, won't get sprung. Whole outfit built so it will last a lifetime and be good every minute. Sold for a fair price, on easy terms, and fully warranted in every way.

You ought to weigh all you buy, all you sell; ought to weigh your stock regularly; ought to keep track of your farm's yield—be a BUSINESS farmer. This scale makes it easy to do all this, and thus save its cost to you over and over—because you can't cheat yourself, nor can you be cheated with this on your farm.

The Scale Every Farm Needs Weighs Up To 2,000 Lbs. Accurately.

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is the handiest truck scale built,—compact, easily moved, readily turned short (front wheels and pole are swivelled). Certified by attached Government Inspection Certificate to be absolutely accurate and well made. Will weigh up to 2,000 lbs. with positive certainty. Warranted in every way. Priced low enough to suit you. Terms to suit you, too, if you wish credit.

THE SAFEST SCALE TO BUY.

No other scale is so fully worth your money. The Chatham levers are solid castings, extra staunch, can't spring a bit, strong enough to carry TWO tons. Main frame all one-piece solid casting. Bearings self-aligning, whole pivot rests on bearing loop,—so scale must weigh right even if not standing level. Chatham drop-lever principle spares weighing parts the jar of loads, thus bearings stay sharp fifty years or more. Send for description, prices, etc.

You Can Afford This Scale.



The CHATHAM Portable Platform Scale.

Very handy on any farm, specially so on dairy farm. Weighs accurately to 1,000 lbs. Has Double Brass Beam—no extra charge for this. Strongly built, finely finished, Government inspection warrant attached to each scale. Freight prepaid.

Lowest Priced 1,000-lb. Scale in the World.

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