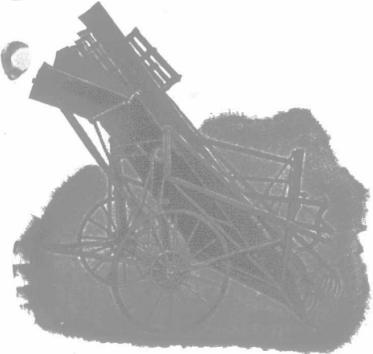


**PAGES
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THE GREAT DAIN Hay Loader



Overcomes every objection found on every other Hay Loader.
 The **One-man Machine** pushes the hay forward to the front of the wagon. Doesn't pull any back off the wagon. Is the widest loader built. Takes out of the **swath, winrow or coil**.
 No extra trucks, fore-carriages, levers nor other devices needed to attach the Dain to the wagon. A ten-year-old boy can do it.
 The machine that is pre-eminent for work and capacity.
 Don't buy a machine that takes as many men to operate it as if you didn't have it.
 Buy the Labor-saving Dain.
 Our circular is yours for the asking. **Write right now.**
The Dain Mfg. Co., Preston, Ont.
 The Fairchild Co., Winnipeg, Man., Western Agents.
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IN THE FAMOUS STETTLE DISTRICT

Improved and unimproved farms. Prices right. Crop payment. Terms to suit. Write for particulars.
W. E. Foore and J. P. Grigg, Stettler P. O., Alta.
 Red Willow Land and Investment Co.

The Advice of Experts:

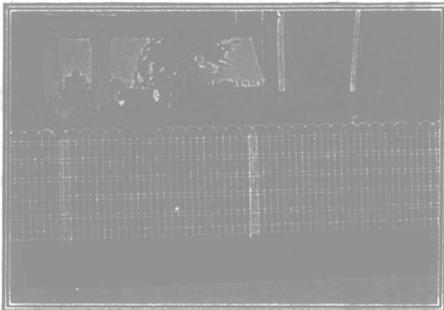
"It is always a mistake to plant **old seed**, and often it is well to procure a supply from a different part of the country, but not very remote nor too different in climate. Seeds of weeds that are hard to kill out are sometimes found in field and garden seeds, and precautions must be exercised against them."

The above is a quotation from *Farmer's Bulletin, No. 94*, of the *United States Department of Agriculture*, and its application to Canadian Growers is this:

Rennie's Seeds are fresh. They are Northern grown and adapted to the Canadian climate. They are carefully selected and free from weeds. This is a plain statement of facts,

and we stand behind it with a record of thirty-seven years' honest service to the Canadian farmer.

W.M. RENNIE CO. LIMITED. Ask your dealer for **RENNIE'S SEEDS**
 Toronto. Montreal. Winnipeg. Vancouver.



PAGE ACME White Fences

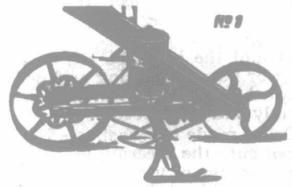
Any height to 8 ft. Any length you say. From 16 cents a foot. Gates to match, from \$2.25. Last longer. Easy to put up. Get booklet.

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 Walkerville - Toronto - Montreal
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"TRUE" Combination Wagon-box and Rack



It is the one article that no farmer can afford to be without. When once on the wagon he has a perfect wagon box, hay stock or wood rack. Do not confound the "TRUE" with other makes.



We manufacture a full line of Combination Wagon-boxes and Racks, Root Cutters, Combination Anvils, the "Bacon" Garden Drill and Cultivator, Grass Seeders, Liquid and Dry Powder Sprayers, Corn and Potato Planters, Hoes, Rakes, etc. Write for our catalogue, which explains all. Correspondence with the trade solicited.
THE EUREKA PLANTER CO., LIMITED,
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Farmers, now is the time to buy yourselves rich.

The Oshawa Wire Fence Co.'s Factory will be sold in June, and I must clean out all Wire Fencing and Gates now in stock. Wire fencing is much dearer than for some years past, and yet ours is cheaper.

WIRE FENCING.

9-49 Standard 35c. per rod.
 9-49 Special 30c. per rod.
 8-50 do. 28c. per rod.
 10-49 do. 28c. per rod.

WIRE GATES.

3-48 Plain Gate \$1 80
 3-4 in.-48 do. 1 90
 3-6 in.-48 do. 2 00
 8-48 do. 3 50
 9-48 do. 3 75
 10-48 do. 4 00
 11-48 do. 4 25
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 12-48 do. 4 50 reinforced joint.

White the stock lasts.

T. H. EVERSON, Oshawa, Ont.

EVERGREENS—Norway Spruce, Austrian Pines, Scotch Firs, Juniper, Arbor Vite, Cedars (various kinds), Flowering Shrubs (30 varieties), all 10c. and upwards; also Perennial Flowering Border Plants, 10c. each, \$1 per doz.; Ornamental Shade and Fruit Trees, 15c. up, according to size; Berry Bushes (all kinds), 50c. to \$1 per doz.; Strawberry Plants (10 varieties), 50c. per 100 and \$2.50 per 1,000. **G. BAKER, Nursery, General Delivery, London, Ont.** Telephone 2222.

There are two young men of St. Louis, partners in a business concern, the younger of whom for a long time was addicted to the habit of reading to the other extracts from letters of a tender nature penned by a young woman of Chicago, signing herself "Claire." Not so very long after, the elder partner returned from an Eastern trip in time to attend the wedding reception of his friend and business associate. In his best manner the senior member of the firm offered his congratulations to the bride.

"I do not feel that I am addressing a stranger," said he, "seeing that I have frequently had the honor and pleasure of hearing extracts from his darling Claire's letters."

"I beg your pardon," responded the bride, into whose eyes there crept a curious expression, "but my name is Violet."

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Lightning has no effect on them. They are absolutely fireproof. Rain and snow—heat and cold—can't rust, crack or warp them. The perfect fitting side lock (exclusively Eastlake) makes the roof absolutely leak-proof, and cost of putting on much less.

OUR GUARANTEE:

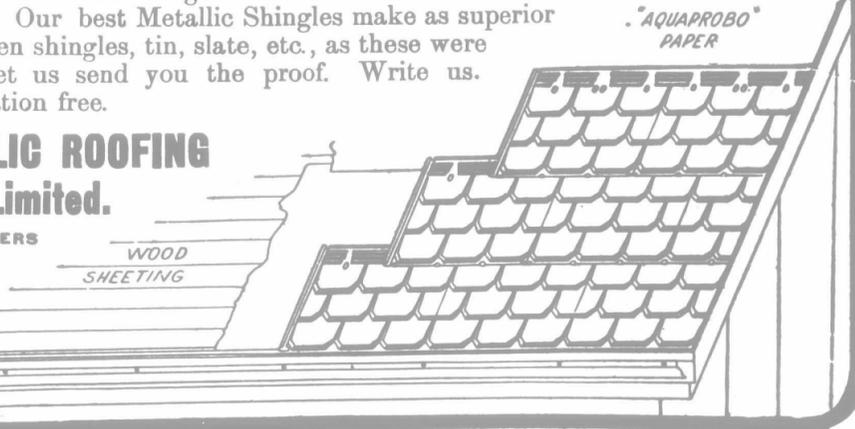
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Eastlake metallic Shingles are made either galvanized or painted. They are handsome in design, attractive on the house and last a lifetime. Our cheapest grade will last longer and costs less than the best wooden shingles. Our best Metallic Shingles make as superior a roofing to wooden shingles, tin, slate, etc., as these were to sod roofs. Let us send you the proof. Write us. Complete information free.

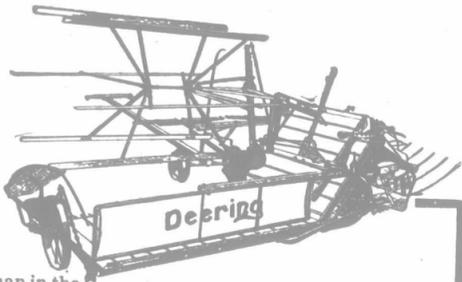
THE METALLIC ROOFING COMPANY, Limited.

MANUFACTURERS
 Toronto and
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40



It Pays To Be Right



AND there is no place where it pays better than in the harvest field.

That is one place where mistakes are specially costly. To come successfully through the season to the harvest time, and then fail of a just reward because of inferior or imperfect harvesting machines is unfortunate, indeed. You may make sure of success by buying a Deering binder.

The Deering is designed and constructed with a view to efficient and long continued service. It meets fully the most exacting demands of the grain grower.

Should the grain be tall or short, light or heavy, standing or down and tangled, the Deering will harvest it all cleanly and without loss.

Being made in four sizes—5, 6, 7 and 8-foot cut—the Deering binder meets a wide range of uses.

The wide-cut binder is specially valuable to the large grain grower, being of unusual capacity.

Any of the following branch houses will supply you with the Deering catalogue.

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CHICAGO, U. S. A.

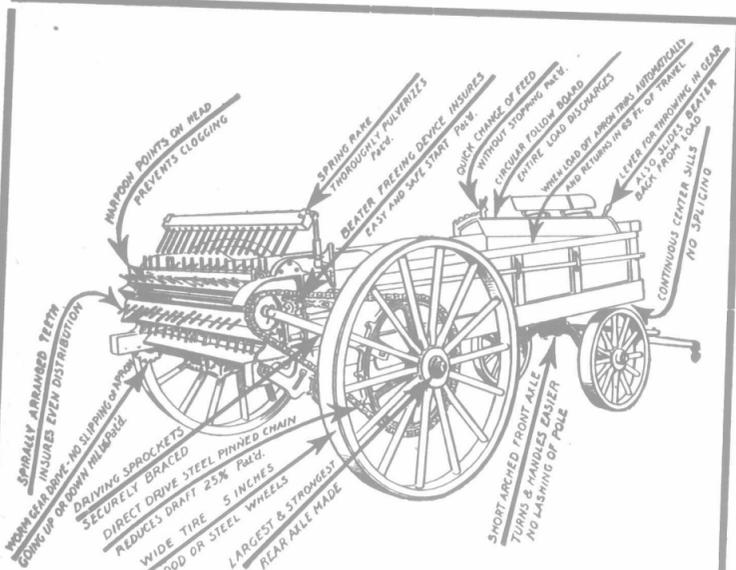
This extra wide binder is provided with a tongue truck, which reduces the draft and weight on the necks of team. We can't bring out the many special features of the Deering binder in this small space.

You should read about these in the Deering catalogue.

The Deering line of harvesting machines is complete and includes, besides grain and corn harvesting machines, binder twine, mowers, tedders, sweep rakes, side delivery rakes, hay loaders, stackers. Also a complete line of tillage implements and seeding machines, comprising disk drills, shoe drills, hoe drills, cultivators and seeders, smoothing, spring-tooth and disk harrows, land rollers and scufflers. Also gasoline engines, cream separators, hay presses, wagons, sleighs, and manure spreaders.

Call on the local Deering agent and discuss with him the qualities and advantages of Deering harvesting machines.

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The "SUCCESS" Pays for Itself

by increasing the crop yield. If you will fill out the following blank spaces, clip out the ad. and mail it to us, we will promptly advise you how much more profitable it will be to distribute the manure with the "Success."

I have the following number of 50-bushel loads of manure per year:

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P. O. Province

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CLARK'S AGENCY REGINA SASK

THAT MEANS PROTECTION TO CLIENTS.

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AMERICAN FENCE PROTECTS CROPS.

SPECIAL STEEL, SPECIAL GALVANIZING,
ALL NO. 9,
HARD, STIFF, SPRINGY WIRE,
used in the

AMERICAN WOVEN WIRE FENCE

Tension curves prevent stays from slipping.

Hinge joint allows the American to fit the hills and hollows.

THE CANADIAN STEEL & WIRE CO.,
Hamilton, Canada. (LIMITED)

RIGHT NOW

Is the time to decide on what

Binder Twine

Registered Trade-mark

to buy for next harvest. Of course you want the best. Then ask for

BINDER TWINE.

MAPLE LEAF BRANDS

Gilt Edge, 650 ft., Pure Manila.
Gold Leaf, 600 ft., Manila.
Silver Leaf, 550 ft., Standard Manila. Specially treated to make it insect-proof.
Maple Leaf, 500 ft., Standard. SATISFACTION GUARANTEED.

Made from high-grade materials. Long, strong, evenly spun and properly balled.

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Brantford, Ont.

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POTASH

FOR FIELD, GARDEN AND ORCHARD

This important plant food may be obtained from all leading fertilizer dealers in the highly-concentrated forms of

MURIATE OF POTASH AND SULPHATE OF POTASH.

On account of the increased demand for these fertilizers throughout Canada this year farmers ought to order at once to prevent disappointment.

The judicious use of Potash in conjunction with phosphatic and nitrogenous fertilizers cannot, and does not, fail to bring satisfactory results. Testimony to this effect is becoming more frequently heard each day.

Write at once for our FREE publications, treating of the fertilization and cultivation of various crops, as well as of the results of fertilizer experiments in Canada and elsewhere.

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Get Your Roofs Shingled Right It's Less Money And Less Work



You can put on a roof that will last a hundred years and be the right kind of a roof every minute. Or you can put on a ten-year roof that will probably leak after the first rain hits it, and keep leaking till it is rotted away.



Either roof will cost you about the same in money at the start. But the "Oshawa"-shingled roof will be FIRE-PROOF—literally; and wind-proof—actually; and lightning-proof—positively. That's the hundred-year roof! And that "Oshawa"-shingled roof will be weather-proof for a century. We'll GUARANTEE in every way for a quarter-century—from now till Nineteen-Thirty-Two.

Guaranteed in writing for 25 years—and you needn't ever paint it, even! That's saying something, isn't it?

What would your mill-man say if you asked him to guarantee cedar shingles for even ten years? He certainly would make remarks!

And even the best cedar-shingled roof will be leaking badly inside of ten years. Seven out of ten of them leak the first time it rains. No wood-shingled roof is fire-proof for a minute, and the first high wind that catches a loose shingle—whoosh! goes half your shingled roof over into the next township.



Yet cedar shingles cost you just about the price of these guaranteed "Oshawa" Shingles—23-gauge toughened steel, double galvanized—good and wind-and-weather-proof and lightning-proof. Four-dollars-and-a-half a square buys "Oshawa" —ten feet by ten feet. Compare that with the present price of cedar shingles—how does it strike you?

And you can put on these "Oshawa" Galvanized Steel Shingles yourself, easily,—with no tools but a claw-hammer and snips. Simplest thing you know—can't get 'em on wrong. "Oshawa" Shingles lock on all four sides—whole roof is practically one sheet of double-galvanized steel, that never needs painting.



And GUARANTEED—don't overlook that. Guaranteed in writing, over the seal of a company with a quarter-million capital,—guaranteed in plain English, without any ifs or buts, for 25 long years.

That's the argument in a nutshell—cost the same as wood-shingles; fire-proof, water-proof, rust-proof, lightning-proof; easier to put on; and GUARANTEED. That's the "Oshawa" proposition! Tell us the measurement of any roof, and we'll tell you exactly what it will cost to roof it with less work and for less money.

Plenty of facts that concern your pocket-book come to you as soon as you ask for our free book, "Roofing Right." A post card will do to ask on.

Why don't you ask now?

"Oshawa" Galvanized Steel Shingles are GUARANTEED in every way for Twenty-Five Years Ought to Last a Century

The Pedlar People Of Oshawa

MONTREAL 231-3 Craig St. W. TORONTO 11 Colborne St. OTTAWA 423 Sussex St. LONDON 69 Dundas St. WINNIPEG 76 Lombard St. VANCOUVER 616 Pender St.

Stone was the Strongest Fence 100 Years Ago.

the picturesque stone fence was the strongest fence that could be built. But the scarcity of stone and its prohibitive cost—not to mention the length of time necessary to construct one—make the stone fence a luxury which few of us feel like indulging in.

But as far as strength and years of service are concerned, a worthy successor is found in the Frost Wire Fence. It is the strongest fence constructed today. It rivals a stone fence in the years of service it will give.

Unlike the stone fence, the Frost Fence is not constructed at a prohibitive cost. It is really a necessity instead of a luxury.

You need the Frost Fence on your farm because it will improve the appearance of your estate—Increase largely the value of your property. You need the Frost Fence because it will keep horses, cattle and pigs absolutely confined in the fields encircled by it. It holds them prisoners same as a stone wall would. They cannot break through or root under it.

Notice that the lateral wires on the Frost Fence are of a special grade No. 9 hard steel coiled wire, heavily galvanized. Any grade of coiled wire will expand, but the only kind we know of which will unfailingly contract is this special grade we are using on Frost Fence—the kind that always keeps Frost Fence taut.

The Frost is the Strongest Fence today

Look at the stays on the Frost Fence. How rigid and straight they hold the fence! They are made of No. 7 hard steel wire—not the weak, flimsy No. 9, No. 13 or No. 15 soft wires used as stays on many fences.

See the difference between a Frost galvanized lock and others. Unlike others, the Frost Lock is the strongest, most unyielding part of the fence—not the weakest. And it practically welds the lateral wires to the stays where they cross each other, which assures a perfect distribution of any strain or enormous pressure that may occur—adds years to the life of the fence.

Contrast the appearance of the Frost Fence with other fence which has been up for the same number of years. You'll find the difference all in favor of the Frost.

Truly the Frost Fence is the strongest fence built to-day—the most solid kind of an investment. If you would like to know more about Frost Fence write for our Free Catalogue, which explains it in detail.

"Frost" Fence

Frost Wire Fence Company Limited
Hamilton, Ont. Winnipeg, Man.

When Writing Please Mention this Paper.

THIS Year PLANT PEAS

Field Peas have sold high for several years,—75 and 77 cents a bushel, last year. This year's export demand will be keen,—profit there for shrewd farmers.

PPP

Two profits in a pea-crop,—the peas and the vines,—rich cow-fodder, valuable green manure, high in nitrogen. Now that the pea-bug has quit business in Canada, peas PAY and Pay BIG.

PPP

Easy crop to handle,—quick-growing,—does well even on "tired" land,—and a SURE MARKET at profitable prices for all you can raise. Plant peas early,—April and early May is best.

**SOW
some
soon**

STOCK MEN



Advertise your fancy stock by means of first-class

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AND
ENGRAVINGS

Send us your photos, and our stock artist will bring out the points.

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DESIGNERS ILLUSTRATORS ENGRAVERS

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Cash or Time
Buys a
FARM
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With cozy new 3-room cottage like cut, and 25 acres for poultry, fruit and vegetables. Only two miles from the live town of Waverly, on N. & W. Ry., midway between Norfolk and Richmond. Delightful climate, abundant water, unexcelled markets for produce. Splendid social advantages. "Go South,—Young Man!" Write today for Booklets, lists of bargains in farms, lowest excursion rates, etc.

F. M. LaBAUME,
Agri. & Indl. Agt.
Norfolk & Western Ry.
Box 600 Norfolk, Va.

BOYS FOR FARM HELP
The managers of Dr. Barnardo's Homes invite applications from farmers, or others, for the boys who are arriving periodically from England to be placed in this country. The young immigrants are mostly between 1 and 13 years of age; all will have passed through a period of training in Dr. Barnardo's English Institutions, and will have been carefully selected with a few to their moral and physical suitability for Canadian life. Full particulars as to the terms and conditions upon which the boys are placed may be obtained upon application to Mr. Alfred B. Owen, Agent, Dr. Barnardo's Homes, 214 Parley Ave., Toronto.

THE SAFE SIGN

QUALITY—In Material and Construction
QUALITY—In Operation and Efficiency
QUALITY—Product and Profits
QUALITY—all the way if it's a

De Laval Cream Separator

THE NAME IS A GUARANTEE

14 Princess St., WINNIPEG.

173-177 William St., MONTREAL.



THE MODEL GOODS Are Always Up-to-date.

Read one of many unsolicited letters we receive from our many satisfied customers:

Brantford, Ont., April 8, 1907.

The Model Incubator Co., Toronto:

Dear Sirs,—I am going to let you know what I have done with the Chas. A. Cyphers 1906 and 1907 brooders. Out of 265 Leghorn chicks placed in three brooders, I have lost one only to date, and chicks are very vigorous. I think this is all I need say, except that chicks were started on Model Nursery Food, and that there was 20 degrees of frost with a strong wind some nights.

I am, yours truly,
E. C. APPS,
Valley Mills Poultry Ranch, Brantford, Ont.

Our catalogue mailed free.

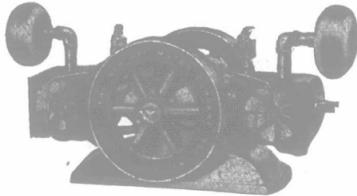
MODEL INCUBATOR COMPANY, LIMITED,
193 RIVER ST., TORONTO.

ADVERTISE IN THE ADVOCATE.

THE "NEW-WAY" Air Cooled Twin Cylinder Easy-starting Engine

6 to 7 h.-p. for general farm work

Is the First Successful Stationary Engine of Its Type



Opposed cylinders, alternating impulses, give increased and constant power, quick recovery under load, eliminate vibration.

No water tank; starts easy without a crank in any temperature. Properly operated cannot be run long enough or hard enough to overheat.

CUT SHOWS ENGINE COMPLETE.
No cumbersome water tank or connections.

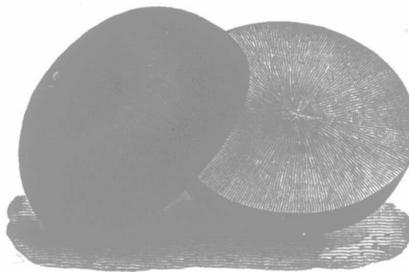
Absolutely reliable, time tried and field tested. Highest grade and finish. We want to demonstrate that it is right, and that it is a complete success.

Exclusive territory to dealers who can do it justice. Write us for Catalogue "A," showing other sizes.

THE "NEW-WAY" MOTOR COMPANY

Brighton, Ontario.

SPENCER SEEDLESS APPLE



APPLE—Seedless winter variety. Beautiful red color dotted with yellow. Size and flavor similar to Baldwin (more juicy). Excellent keeper. Solid apple flesh clear through.

TREE—Hardy and thrifty grower. Smooth bark. Abundant bearer. Petal-less blossoms, frost and rain proof. Suitable for all apple-growing sections of Canada.

ORDER TREES NOW (supply is limited).

Spencer Seedless Apple Co'y
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84 Victoria Street. TORONTO, CAN.

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"There ain't goin' to be no core."
Send for our illustrated booklet.

Queenston Cement

successfully used by the farmers of Ontario for over 20 years. Direct from manufacturer to consumer. Positively the best and cheapest cement you can buy. Price, 70c. per barrel, f. o. b. works. All information cheerfully given. Write us.

Isaac Usher, Queenston, Ont.

Last Mountain Valley Lands

We own thousands of acres of **Choice Selected Land** in this district, which is in the heart of the

GREAT WHEAT PLAINS

OF

SASKATCHEWAN

Ample **TIMBER** for All Purposes

Prof. Thos. Shaw, after personal inspection, writes: "This rich and beautiful farming section lying in the vicinity of Last Mountain Lake, embraces one of the finest areas in the Northwest. The land is undulating in this region, mostly open prairie. The soil is rich black vegetable loam, from one to two feet deep, and is underlaid with a clay subsoil. Frost, to injure the wheat, is virtually unknown. Being thus favored so highly by nature, it is not surprising that the production of wheat in this region is phenomenally high; in several instances forty to forty-five bushels per acre have been reaped. Oats, Barley, Flax and all small grains yield relatively as good as those of wheat. Potatoes grow most luxuriantly. Two or three years ago there were not more than thirty-five settlers in the entire area; now there are over a thousand, and others rapidly coming in."

Send 25c. for our beautiful new photographic souvenir, entitled "The Lake and Lands of Last Mountain Valley," which is not only a work of art, but a book of authentic information. We will also send Atlas of Canada, Maps, etc.

Wm. Pearson Co., Limited,

304 NORTHERN BANK BUILDING, WINNIPEG.

The Farmer's Advocate

and Home Magazine

"Persevere and Succeed."

Established 1866.

Vol. XLII.

LONDON, ONTARIO, MAY 2, 1907.

No. 762.

EDITORIAL.

THE O. A. C. AND THE ONTARIO WINTER FAIR.

That the dairy industry has a good friend at Toronto in the person of Hon. Nelson Monteith, Minister of Agriculture for Ontario, is evident from the fact that over \$85,000 has been set aside in the estimates this year for purely dairy work, this not including the somewhat indefinite amounts indirectly granted through prize-lists and demonstrations in the Dairy Departments of our numerous annual fairs. The figures represent an increase over last year of something like thirty thousand dollars. Nearly \$28,000, or, to be exact, \$27,915, goes to the work of the Dairy Department of the Ontario Agricultural College; \$35,000 is for the work of dairy instruction, which has been taken over this year by the Department of Agriculture, to be administered from Toronto, and the rest is for the Eastern and Western Dairymen's Associations and for the two dairy schools, at Kingston and Strathroy, the latter of which, by the way, is to be wound up at last.

The best thing about this generous grant is that every dollar of it is to be expended for useful purposes, viz., the improvement of products, the crux of the situation, in so far as Provincial aid to the industry is concerned. There is no lavish handing out of funds for purposes of questionable utility. This is good, because, while \$85,000, or even double that, is not too much to spend where we are sure of getting value back, on the other hand ten cents would be too much to lay out without prospect of return. We are glad that the Minister seems to recognize this important principle in the disposition of public moneys.

There may have been a shade of disappointment in some quarters that he did not see fit to accede to the request of the deputation which waited on him in March to ask for a grant of \$4,000 towards the holding of a National Winter Dairy Show in St. Lawrence Market, Toronto. On behalf of this enterprise, it was argued that the dairy interest is inadequately served at the present winter fairs, Guelph and Ottawa; that a great special dairy show at some central point is desirable to advertise the industry, to bring patrons, makers, dairy-stock breeders, dairy-supply firms and others together for their mutual education, and to afford a rendezvous for the annual meetings of the several organizations pertaining to the dairy business. Beyond the Minister's public utterances, we do not know his mind on the matter, but it is certain that his objections to making this grant were based on broader grounds than a mere reluctance to part with the few thousands of dollars asked.

Ontario has at Guelph and Ottawa a couple of unique institutions, unequalled probably by any other exhibitions in the world, unless it be those at Amherst and in the West, which have been modelled after the Ontario pattern, for practical educational value. We have worked the idea out ourselves, and are entitled to no little Provincial pride in the results. Moreover, the possibilities in the way of their extension are indefinite. It is Mr. Monteith's avowed aim to use the Guelph fair, at least, as the nucleus round which to build up a far greater fair, doubling, or more than

doubling, the present housing accommodation, enlarging existing features, especially the dairy department, and possibly adding horses as well. The inauguration of a separate dairy show, if it proved a success in drawing attendance—which is by no means certain—would detract from this purpose, curtailing the growth of the present fairs. As has been wisely pointed out, the Ontario farmer is not an overly-frequent traveller, and one Winter Fair a year is enough. Most of our husbandmen are interested to some extent in several lines of farming, and it is to their very great advantage to have a winter fair where they can take in everything in the whole range of farming operations. Agriculture in Canada is not yet so far specialized as some would have us believe, and probably never will be. Besides, even specialists will be much better off for rubbing up against their neighbors who are competing in other lines. We must guard against the danger of rival class interest and prejudice. It is well to preserve the cosmopolitan character of our agricultural assemblages.

That dairying has not had a sufficient degree of consideration at the Guelph fair, is quite true. It is an outgrowth of the fat-stock show idea, and milking competition and dairy lectures were added as a sort of appendix. This must be changed. It is the Minister's intention that it shall be changed. The dairy-breed associations should have full and effective representation on the Winter Fair Board, and the whole exhibition and programme of lectures must be conceived with as much care to further the dairy cause as to encourage the production of better meats. Until this is tried conscientiously, it is premature to undertake a National Dairy Show, although the discussion of the project may bear good fruit in stimulating the Guelph City Council to co-operate with the Department of Agriculture in providing the needed extension of quarters at the Royal City.

Another point that has been incidentally brought out is that the Ontario Agricultural College was established too far west in the Province to serve as a suitable center for the agricultural organizations of the Province. But the presence of the College at Guelph was the determining factor in locating the Ontario Provincial Winter Fair, and is an equally cogent reason for having the Dairy Exhibition at the same place and time. The more people we can draw to the O. A. C., the better for it, for the country at large, and for each branch of agriculture represented.

The Peterboro deputation, which had hoped to attract the proposed dairy show to their city, instead of Toronto, based a strong plea on the fact that Western Ontario has reaped a lion's share of the benefit from the O. A. C. and the Ontario Winter Fair. For the lack of the many incidental privileges of having an agricultural college in its midst, they claimed, Eastern Ontario was not keeping pace with the West. However, looking ahead, there is a ray of hope. In time the Macdonald College at Ste. Anne de Bellevue will become a center for the agricultural interest of Eastern Ontario and Quebec, and by reason of geographical and climatical conditions, it will serve that part of the Province much better than the Guelph College ever can. Meanwhile, for a few years, let us make the best of things as they are, by carrying out a consistent policy of concentration at Guelph, building up both the College and the Winter Fair in all departments, not forgetting, meanwhile, to do what can be done for Eastern Ontario and the Eastern Live-stock and Poultry Show, by way of partial compensation for remoteness from the Provincial school of agriculture.

UNRAVELLING THE TANGLED SKEINS.

A pretty good indication that the Royal Insurance Commission touched something worth while, is found in the systematic attempts of some person or persons interested to discredit its findings and discount its methods. Scarcely a day passes that we do not receive a marked copy of some paper or other, in which articles or spiteful cartoons cast reflections on the Commission and its report. Some of the editorials are more or less pointed, but an organized effort must be responsible for this persistent attempt to instruct us, and, no doubt, the editors of many other publications as well.

Without entering upon a review of the personnel, the proceedings or the recommendations of the tribunal, we beg to express our belief that the appointment of such a body was a wise, timely and most fortunate action. That its inquiry revealed no such gross evils as had previously been discovered in the American Republic, is a matter for congratulation. The chief vindication of its appointment is the salutary corrective influence which the publicity given to its investigations will exert. Through it all the public has been much enlightened concerning the actuarial facts underlying life insurance, and many a man is in a better position because of this to choose intelligently the company, and more particularly the form of policy, in which to deposit his premiums.

One point brought out has been the perplexingly numerous forms of policies offered. The commission submits that four kinds of policies are ample to provide our needs, and recommends that all companies be required to conform by law to these four. This is a needed move in the direction of simplicity. The Commission also lays down the principle that insurance companies should not be interested either directly or indirectly in the promotion of other companies, and further submits certain lines of investment which it thinks they should be forbidden to touch. Whether the investments prescribed and those blacklisted are in all cases wisely named or not, the recognition of the principle that insurance companies are simply trustees, and should therefore confine themselves to safe lines of investment, is sound. The recommendations as to Government inspection and publicity are also in the right direction.

Much ado has been made because, in probing the investments of a certain fraternal insurance company, the unravelling disclosed some skillful manipulation of silken financial threads by certain gentlemen who fancied themselves secure under the cloak of "private business," and the attempt has been made to insinuate malign political motives in the appointment of the Commission. The men who are seeking to raise this cry at the eleventh or thirteenth hour, will not find it much to their advantage with the independent thinking public. A scrutiny of the Commission's report seems to show ample evidence of political impartiality in its strictures and reproofs. Men of both political parties were rebuked.

The plain truth is that the Insurance Commission, while perhaps not a perfect instrument—few human institutions are—has not only been a good thing for our insurance policyholders, but will in the end work only benefit to the deserving companies, while the fact of its appointment will have a deterrent influence on men in other business who may be disposed to chicanery and graft. This is the day when the people are asserting their rights, and the high-handed methods of the captains of finance are being regulated for the general good. The Insurance Commission is only

THE FARMER'S ADVOCATE AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN THE
DOMINION.

PUBLISHED WEEKLY BY
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an earnest of the rising spirit of the times. Incidentally, we hope to see some of its recommendations crystallized into Federal legislation at the next session of the Dominion Parliament.

FREE RURAL DELIVERY—WHEN?

Already, during the short regime of Hon. R. Lemieux, the Canadian Postal Department has required the United States authorities to raise the rates on second-class matter, such as newspapers and the like, coming into Canada from one to four cents per pound, and has induced the British authorities to reduce the rates on second-class matter destined for Canada from eight cents to two cents per pound—all of which is designed to restrict the circulation of an undesirable class of periodicals in this country and cultivate ties of sentiment and business with the motherland, by encouraging the circulation of British periodicals.

As another move in the direction of improving the Canadian postal service, a supplementary item of \$50,000 has been placed in the estimates to extend free delivery of mail matter to the smaller cities where the P. O. revenue exceeds \$10,000 and the population reaches 10,000 or 12,000. Several official tours are to be made this season, including the West, with a view to improving the service. Whether or not these will include an inquiry into the postal needs of the agricultural areas of the Dominion, including free rural-mail delivery, or a betterment of the service in other ways, no hint is given up to this time.

A WELCOME ARRIVAL.

I think your paper a very fine farm journal, and we all welcome it on its arrival each week. Every progressive farmer ought to read "The Farmer's Advocate." W. A. WALLACE,
Carleton Co., Ont.

DON'T LET THE CRUST FORM.

In the tillage of the land a vast amount of work is done to poor advantage for want of a clear idea of the objects of cultivation. It is well to regard the soil as a natural laboratory, where many complex changes are going on which result in the liberation of plant food. These changes are chemical and bacterial in their nature, and they take place only in the presence of heat, air and moisture. The supply of heat depends chiefly on nature's bounty, but the great objects of cultivation are to supply the other two favorable conditions, viz., air and moisture, and also to combat weeds. The control of weeds, however, should be brought about as an incidental effect of cultivation. Seldom need it be the primary object on a well-managed farm.

To provide air and moisture in the soil, the great essential is to preserve, under all possible conditions, a loose mulch of surface soil. This acts as a blanket to protect moisture below from the evaporating influences of sun, wind and air above. Investigations by the Department of Physics of the Ontario Agricultural College show that in the dry growing season of 1905 grain crops used two and a quarter times as much moisture as fell on them during their period of germination and growth. In the wet season of 1906 they required one and a half times as much as was supplied in the rain that fell. This extra moisture must have come from the subsoil, where it has been stored up chiefly in the dormant season. We can thus perceive the great importance of conserving moisture carefully. Much can be done in this direction by thorough pulverization of the soil to plow depth, thus increasing the water-holding capacity of the lower soil; but far more important it is to have the surface layer of two or three inches dry and loose—the drier and looser it is, the more effectually will it conserve the moisture below. Even a slight crust will impair its efficiency, tending to draw the soil moisture to the surface, where it is quickly evaporated. A harrowed or scuffed surface will preserve moisture very much better than a rolled one, or than one over which a crust has formed. To save soil moisture, therefore, never let a crust form when it can be avoided. If crust does form, break it up at the earliest possible moment. Every day's delay means serious loss of moisture, which, if the season should turn out to be dry, may be a very serious matter, and is regrettable in any case. By keeping the surface soil loose, we prevent the baking of clays, and thus insure a free range of root growth. Baking is caused by the sudden drying out of a moist, adhesive soil. It starts at the surface as a crust, and thickens as the soil dries out. The soil mulch prevents the rapid drying out, hence keeps the lower soil moist and mellow. Even in a prolonged period of drouth, this under soil will remain friable, and in case the dry weather lasted long enough that the lower soil actually did dry out, it would still be much less hard than if it had quickly dried out by thickening of a crust above. If the value of the soil mulch were better understood, there would be more general use of the harrows to run over clay spots in the spring, instead of waiting till the whole field was ready, and then trying by roller, harrows and disk, to break up the dry, caked furrows.

A soil mulch also provides for the aeration of the soil, which is just as indispensable as the ventilation of a stable, for the processes by which plant food is liberated will not take place without air in the soil, and there must be continued change of air, too. The conditions under which aeration or soil ventilation is accomplished most readily are a moderately mellow soil beneath and a loose, dry mulch above. A hard, caked or soggy, wet surface does not conduce to the free soil ventilation, and is very undesirable on every count. Nor will the cracks that form in a dried-up field help much to ventilate the soil, for, though they may let the air down, they do not distribute it through the soil body.

Finally, the cultivation which aims to prevent crust from forming, or destroy it promptly if it does, will also kill germinating weed seeds, with no particular pains or effort at all. A weeder used in this way will do more to keep down weeds than a broad-share cultivator can accomplish in destroying them.

In fact, about nine-tenths of the gospel of soil cultivation may be summed up in the simple injunction, "Don't let the crust form."

HORSES.

FOALING TIME.

Occasionally one hears of early foals, and, in the hands of thorough horsemen, satisfactory results being obtained, but the rank and file of those breeding mares prefer to have the foals come the latter end of seeding, or after the rush is over. In a country where seasons are so short and the spring rush so marked, and where the mares are of necessity worked, it would appear as if the May foal would be most acceptable. This point will need to be considered by farmers when returning mares this season, as some catch the ninth day after foaling, and thus gain three weeks on the previous year.

Almost invariably better results are obtained from working the mares right up to foaling time. The udder is thus kept from becoming hard and inflamed, and thus mares are less likely to be irritable with the foal, and the foals are rarely constipated. The writer has taken mares out of the harrows to foal, and the offspring were invariably strong and lively. Many people are puzzled as to the signs of, immediate foaling, as the record kept from the service is frequently inaccurate. In addition to the increasing pendulousness of the body, two signs are pretty reliable, viz., the waxing of the teats, usually appearing within two or three days of the act, and the drooping over the rump, due to the relaxation of the ligaments, one of nature's provisions for the safe outward passage of a large body as the result of expulsive effort on the part of the mare. Some mares run milk for days before foaling, a sign not at all welcome by horse breeders, who claim that such usually portends bowel trouble in the foal. If the mare has been fed a laxative diet, a little boiled flaxseed and bran, and limited amounts of hard grain, as well as being worked, little trouble need be feared regarding constipation in the foal. When it does occur, it needs very careful attention. A homely practice on a stud farm, well known to the writer, was the giving of a teaspoonful of unsalted fresh butter to the foal as soon after foaling as possible. Whether that has a beneficial influence or not, we are not prepared to say, only constipation troubles in foals were never experienced. The foaling box needs to be roomy, and should be dry and well bedded. As a precautionary measure, it is wise to be prepared with a disinfectant solution to treat the navel string, for the prevention of navel or joint-ill and diarrhoea, causing the loss of hundreds of foals every year.

The act of parturition in a mare comes on very suddenly, and, all being well, is soon over. One may leave a box for a quarter of an hour, the mare seeming as quiet as possible, and come back to find her up and licking the foal. Usually there is a little more sign, the mare often chewing a few mouthfuls of hay, then dozing for a few minutes, and waking with a slight jerk. These little signs of uneasiness are very familiar to those who have spent long night watches. A mare is the cleanest of all females, and, in ordinary cases, one cannot soil the hands. Slight matters may be put right by anyone at all familiar with the work. It is a great relief to see the fore feet and the nose, and know that all is straight. If there is any doubt, one should feel at once, and if there is any work to be done, one should strip to the waist. In malpresentations, a veterinarian should be secured as soon as possible, as the work is extremely hard, and oftentimes requires the use of instruments. The intervention of professional aid is for the purpose of saving the mare. Foals, unless delivered quickly and easily, are usually dead on arrival. A sequel of difficult foaling is inflammation of the womb, which also may be caused by the afterbirth being retained. Retention of the membranes (afterbirth) in mares is very dangerous, blood-poisoning and death oftentimes resulting in a couple of days. In normal foalings the afterbirth should come away in half an hour or so, and if not expelled then, should be removed, care being taken that no portion of it is left to cause straining or blood-poisoning. Unless present at the foaling, the navel cord will likely have been broken, but in case it is not, it should be tied about an inch and a half from the foal's body and dressed twice daily with a strong carbolic solution; even the acid, as procured at the average drug store, may be used, or formalin. Many people, especially novices, are worried because the foal seems to lack control in the use of its limbs, or is crooked on its legs. Draft foals, especially out of underbred mares, are frequently this way, but in time (a month) straighten up all right, although the foal may have walked right on its joints at the start.

There is often trouble to get the foal to suck. An overfond mare will keep turning round to touch the foal with her nose, and give him no chance to get to the teat. With a bride on, she can be held to give him a chance. Providing the

mare is quiet, let the foal find the teat for himself, even if he is some hours over it. He will generally blunder to it at last. To push a foal up to the mare and try to make him suck, will, if not well done, usually make him stupid, and put him quite off it. If after some hours he has not succeeded in finding the teat, a little may be milked into the hollow of the hand to give him a taste, when he will probably follow the finger-ends with his lips to the teat. It is of little use pushing his head to it if he will not follow the finger-tips.

With regard to constipation in foals, do not physic them. Give mare laxative diet, let the foal have the first milk, and, if necessary, introduce a cone of soap into the foal's rectum, if it does not pass any matter in the first twenty-four hours. The first passages are dark, and if these come away and the manure is of a lighter color, one can rest assured that the first milk, containing a laxative principle, has done its work. Watch the foal, and see that the natural passages for the water and faeces are in use.

CLYDESDALE REGISTRATION.

In a letter issued by the Secretary of the Clydesdale Horse Association of Canada, the importance of registration of all eligible stallions and fillies of a suitable character is urged. Many stallions, standing for service in Canada, as well as breeding mares, have not yet been recorded, and the registration of their progeny, sometimes only attended to when necessary for sale purposes, is then attended with unnecessary expense, trouble and delay.

In the case of a four-cross filly, it is sometimes difficult to obtain the required information and evidence, and this becomes greater as time passes. Owners of fillies eligible for registration are urged to attend to the matter early, as it gives enhanced value to the animal, and in the case of change of ownership, no delay occurs. Every breeder is recommended to keep in a safe place, not only a record of all colts, but the pedigree of the sire and dam from which each colt is bred.

The cost of recording is two dollars to non-members and one dollar to members of the association. In the case of an animal being sired by a stallion recorded in

Scotland, but not recorded in Canada, the sire must also be recorded. In filling out application forms, care should be taken to give the correct numbers of all sires, and, if the dam is registered, her name and number also. All Clydesdale breeders are invited to join the association, sending the membership fee to "the Accountant," National Live-stock Records, Dept. of Agriculture, Ottawa. The fee is paid annually, and the advantages are reduced cost of registration, and a copy of the studbook free.

Application forms, transfer blanks, envelopes, etc., will be forwarded to all persons requesting them, from the Accountant as above, all letters to whom so addressed will pass free of postage, if the letters O. H. M. S. are placed in the upper right-hand corner of the envelope. An advertisement appears in this issue of "The Farmer's Advocate," calling attention to the above, also an announcement in our advertising columns, calling a general meeting of members of the association to consider a proposed amendment to the rules regarding the registration of imported stallions and mares, the meeting to be held in Toronto on May 23rd.

Views of Western Horsemen Regarding Stallion Enrolment.

Three Provinces in Canada, viz., Alberta, Saskatchewan and Manitoba, have on their statute books some form of stallion-enrolment legislation more or less adapted for present-day requirements. In each of these Provinces every stallion standing or travelling for public service must be enrolled with the Provincial Department of Agriculture, the certificate of enrolment stating whether grade or cross-bred, and if pure-bred, of what breed. In addition, the owner (or owners) of pure-bred stallions make an affidavit or present a veterinarian's certificate as to the soundness of the particular stallion. The soundness clause applies only to pure-breds, the idea being to give sound pure-bred stallions the advantage over all other stallions, either unsound pure-breds or grades of any description. All stallion advertising must contain a copy of the certificate of enrolment, and every stallion must be advertised. In the Manitoba Act there is also provision for a lien on the foals got by pure-bred stallions.

In our issue of January 31st, 1907, we published an article outlining the Western enrolment law and reviewing its working out. Since then "The Farmer's Advocate and Home Journal," of Winnipeg, Man., has invited the views of its subscribers on this subject, and some letters appeared in its issue of April 10th. In view of the vital interest in this subject of stallion inspection and enrolment, we give space to these letters, and may publish more as they appear in the Western paper.

BELIEVES IN ENROLMENT OF STALLIONS.

With regard to the Horse-breeders' Ordinance, I would say I have made a study of horse-breeding for 25 years. We must post horse owners to get good horses, and we must have breeding in the sires or we cannot improve our stock.

Unsound horses should not be used. I would bar horses with spavins, ringbones, or cribbers, and any person travelling such for public service should suffer a penalty.

Lien on Foals.—Service of horse should constitute a lien for horse fees, without registration, if claimed within eighteen months after fees are due.

We have had good results from enrolment here, but there should be a man appointed in every district to see the law is put in force.

A. G. MORROW.

ENROLMENT SYSTEM PROTECTS OWNERS OF MARES AS WELL AS STALLIONS.

I think stallion enrolment is a very good system, as it protects those who are breeding mares; also owners of pure-bred stallions. I keep my stallion for my own use, with the exception of a few neighbors who bring their mares to be bred. This being a ranching country, nearly all the ranchers keep their own stallions, from which a lot of good horses are raised, but the homesteads around are being taken up fast, and I expect it will be a farming country before long. I do not believe in breeding from unsound horses, and I think stallions ought to be certificated as such, according to the nature of their unsoundness.

ROBERT BLYTH.

ENROLMENT ORDINANCE NEEDS ENFORCING.

The present system would be all right, providing it were carried out, but it is not. I know of several around here, common mongrels, plugs, that travel as registered horses, but they are not enrolled, and they run them any way from bull price to a plug of tobacco, and it makes it bad for the man with the good horse.

Re unsound stallions, I would not use a blemished horse, unless I knew the blemish was caused by an accident. I should suggest that the Department should enforce the law with regard to horses not enrolled.

R. HARTLEY.

THINKS STALLION ENROLMENT O. K.

I think stallion enrolment is all right if it is put in force. We are blessed with pure-bred horses around here. The farmers are all for pure-breds. As regards unsound stallions, the thing is where to draw the line? I know a stallion that has boggy legs, but he is a fine horse other ways. I would say that a scrub should not be allowed to get colts unless for the man that raised him.

J. B. LINNELL.

Sask.

ly exterminating them, as far as public use goes. Then, again, it is of great benefit to owners of good stallions, as it greatly facilitates the collection of service fees, thereby encouraging the outlay of greater sums in the purchase of good stallions, that will rely very greatly on outside patronage. The effect of the system in this respect is already quite obvious, and, as a result, the young stock of the West are beginning to show improvement, even if it is but slight at present. But a few years, and the benefit of the enrolment system will be felt and seen all through the West.

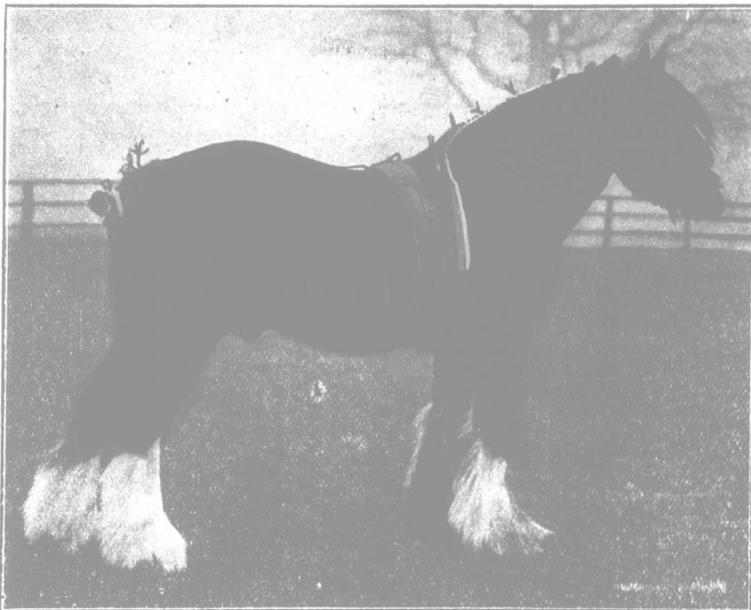
As to suggestions regarding the use of unsound stallions, I emphatically suggest they should be avoided, and given no consideration whatever. By "unsound," I take it that hereditary unsoundness is meant. I think the most fatal mistake breeders can make is to use animals (male or female) which are known to possess any unsoundness that circumstance would indicate might be transmitted to the offspring. Accidental unsoundness I see no reason to object to, other than the unsightliness that may accompany such unsoundness, and the fact that the so-called unsoundness exists, but I strongly advise anyone contemplating the purchase of such an animal to thoroughly satisfy himself that such unsoundness is accidental or not hereditary. Where this cannot be done, the animal under suspicion be left strictly alone.

I suggest the animal under suspicion be left strictly alone.

As you ask what I would suggest by way of improvement to present enrolment ordinance, I suggest that the issuing of certificates to grade stallions should be done away with, as these horses are very seldom good sires, and as long as they are allowed to stand for public service there will be many owners of mares found to patronize them—a practice that does much harm to horse-breeding. Another suggestion I would make is that the time for "filing evidence of claim for service" be extended from 12 months (as now) to 14, from time such service is performed, as it gives owner of stallion a much-needed extension of time to enable him to protect himself. Owners naturally do not care to press their patrons for fees (especially in the case of a year like this, when the sale of wheat is almost at a standstill) or file a claim for service with the local registration clerk; yet, the owner of horses must have protection, and the extension of time should give him ample time to obtain it.

R. M. DALE.

At this season it is well to stand the horses outdoors when being groomed. It will avoid dust in the stable, and be very much better for man and beast. Keep to the windward side of the horse, and let the dust blow away from you.



Bramhope Cardinal 24058.

Shire stallion; bay; foaled 1904. Imported and owned by Messrs. Morris & Wellington, Fonthill, Ont.

ENROLMENT SHOWS UP BOGUS PEDIGREES.

I am strongly in favor of enrolment, as it brings out the bogus pedigrees. I would suggest a license on grade horses; say ten or fifteen dollars and a veterinarian's certificate of soundness along with them. I think that would be an improvement. My suggestion about unsound horses would be that all horses enrolled shall have a veterinarian's certificate, along with enrolment, of their soundness, or what they are entitled to and then the public would know what was wrong. There are so many people who do not know a sound from an unsound horse when they see one.

ROBERT FRASER.

STALLION ENROLMENT AND THE USE OF UNSOUND HORSES.

Your letter to hand regarding stallion enrolment and use of unsound stallions. Taking your questions in order, I answer them as follows:

I consider the system of stallion enrolment as one of the greatest benefits to horse-breeding it is possible to have, and one that cannot be too rigorously enforced.

How is it affecting the breeding of horses in your district? As the system has only been in existence since June, 1903, it cannot be expected that its effect is yet very noticeable, only as a means to prevent the scrub or mongrel stallion from standing or doing stud duty in the country, and in this way it has worked wonders, practical-

ANOTHER VOTE FOR MR. McKNIGHT'S PLAN.

Editor "The Farmer's Advocate":

I have been reading with a great deal of interest the different breeders' views re licensing of stallions in your valuable paper. To my mind the views in the letter written by Mr. S. J. McKnight, Grey Co. (issue, March 28th), fills the bill the best I have seen yet—for the Government to impose a fine of not less than one hundred dollars on the owner of any stallion offered for service at a fee less than fifteen dollars. A man can afford to travel a good horse at that price, but at no less. The owner of the scrub stallion, having to raise his fee to that price, would soon be out of business, as farmers and breeders having to pay the same for both would certainly use the good stallion in preference to the bad one. Now, most farmers to-day are good judges of horses, but the trouble is some of them think that five dollars saved is five dollars made, and do not stop to consider what the difference would be in the value of the colt at four or five years old. I do not think it right to pass any law that after a man goes to the trouble of getting a good stallion, and paying a big sum of money for him, that he should have to pay a license before he can offer the stallion for service.

I am glad you have given a page to this important question, and I feel sure the Ontario Government will do something to help the owners of good stallions, and encourage the others to get better ones.

Middlesex Co., Ont.

FARMER AND BREEDER.

LIVE STOCK.**CONTAGIOUS ABORTION IN DAIRY HERD.**

My cows abort in from ten to eighteen weeks after service. Some abort a small calf in a sac; in others it apparently rots away, a thick, yellowish mucus being observed for three or four weeks from a time about eight weeks after service. I would like to hear through "The Farmer's Advocate" from parties who have had experience with and have conquered this pest. There is not a particle of accumulated filth in my stable. I have cement floors, and lots of fresh air. How should I disinfect? Should I syringe out the interior of cows' hind parts? Please give directions. How is this disease communicated from one cow to another? Will switching their tails carry it from cow to cow? Could a man be prosecuted by law who would send his herd of over twenty cattle (diseased with contagious abortion) to a point twenty miles away, and have them sold in another party's name by public auction, thereby scattering the disease into probably twenty herds? Where can I secure a first-class published work on this disease? Would the summer season be a better time to fight the disease than the present?

DAIRYMAN.

In answer to the legal question put, we would say that the man has rendered himself liable to criminal prosecution, as suggested, and also to civil action for damages at suit of the party injured.

Contagious abortion is not one of the diseases dealt with under the Animal Contagious Diseases Act. The nature of this disease is not thoroughly understood, nor have scientists in any country reached an agreement as to the prophylactic measures most likely to secure its eradication.

The following measures have previously been recommended by Dr. Rutherford, Veterinary Director-General, as being advisable:

1. Strict isolation of all reacting animals.
2. Destruction by fire of the fetus and its envelopes.
3. Thorough cleansing and disinfection of the stables occupied by pregnant cows. This is most effectively performed by thoroughly scrubbing all woodwork with hot water and crude carbolic acid, the latter in the proportion of 4 to 5 ounces to each bucket of water, to be followed by the application of a lime wash, to which one pound crude carbolic acid to each five gallons has been added. If the floors are of earth, it is well to remove four or five inches of the soil and substitute fresh therefor. Admit fresh air and light into the stable, especially when empty.
4. Sponge at least once a day the vulva, thighs and tail of each pregnant cow with an antiseptic solution, such as creolin, 1-30, in soft water, or a 1-1000 solution of corrosive sublimate (perchloride of mercury) in soft water.
5. Keep the floors clean and sweet, using lime freely.
6. Be careful in the use of bulls. Any bull which has served an aborting cow is a source of danger to the rest of the cows. Many herds have become infected through the stock bull having served some infected cow, and thus contracted the disease. The disease is most insidious in its nature, frequently getting into a herd from the purchase of a cow which has aborted the previous year.

Affected cows show no external sign of disease, the first evidence being, generally, the abortion itself. The best way to get rid of the disease, where it is practicable, is, undoubtedly, to feed

off all breeding stock, especially if not pure-bred, and restock after careful and thorough disinfection of the affected premises. Internal administration of various remedies, notably pure carbolic acid, well diluted, in doses of from one to four drachms every two or three days, has many advocates who are certain as to its utility.

NATIONAL RECORDS CORRESPONDENCE.

Reference having been made in these columns recently to inconvenience and misunderstanding regarding the person to whom correspondence in connection with the National Live-stock Records should be addressed, the Secretary of the Record Board has kindly favored us with a letter of explanation, the substance of which is as follows, and which will, it is hoped, make more clear the situation and the reasons thereof: "Ever since the Records have been in Ottawa it appears there has been much of confusion through correspondence in this connection being addressed to Mr. Henry Wade, sometimes sent to Toronto and forwarded by him to Ottawa, and sometimes addressed to him at Ottawa. The reason for this was that for a long term of years, people have been accustomed to forwarding matter of this sort to Mr. Wade, and all the forms which were sent out and which were in the hands of breeders, had Mr. Wade's name and address on them, and even at the present time there are a large number of these old forms continuing to come in. After the Records were removed to Ottawa new application forms, giving information as to the addressing of correspondence, were sent out to all persons whose names could be procured as likely to record stock. As

quired if correspondence addressed to H. G. Wade, Registrar Canadian Live-stock Records, could not be delivered to the office, and was informed that, according to the postal law they had to follow the written instructions. If correspondence were addressed to Mr. Brant, and his name were printed on all the forms, if at any time there should be a change, the same difficulty would be encountered, only in a much more serious form than in the case of H. G. Wade, as Mr. Wade would have only a certain amount of the correspondence addressed to him at the Record Office. There is no inclination to prevent the general public from knowing the name of the accountant. All letters sent out from the Record Office are signed by that official. It was thought to be a matter of convenience for those who have correspondence with the Record Office, as it is thought that a permanent address will be found more convenient than addressing an individual who might at any time decide to withdraw from the office.

LIVE-STOCK RESEARCH.**O. A. C. EXPERIMENTS ON COST OF PRODUCING PORK.**

The annual report of the Agricultural College, Guelph, recently issued, contains Prof. Day's summary of the experiments with live stock conducted at the College during 1906. We shall consider in this article the part of the report covering the experiments dealing with swine-feeding.

The work was an essentially practical undertaking, being of the nature of an attempt to determine the cost of raising pigs from birth to marketing, or, in other words, to find out what

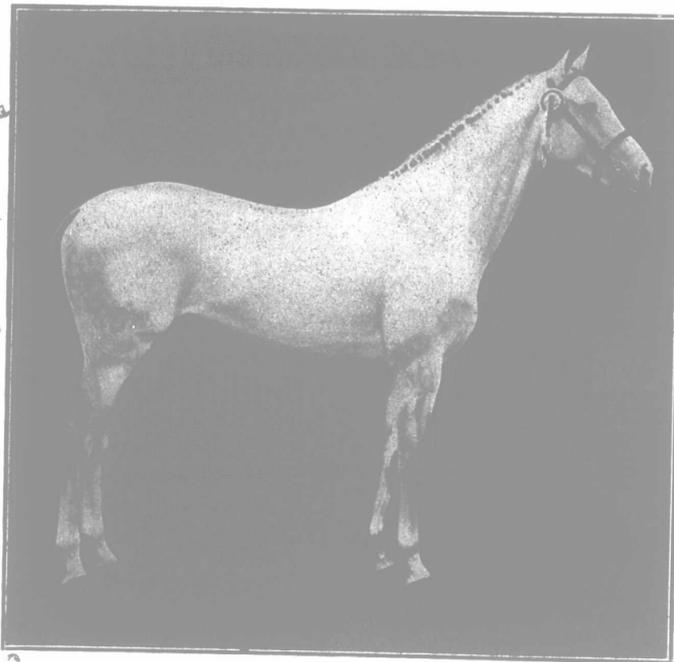
it was likely to cost, under average conditions, to produce a pound of pork. To obviate the possibility of controversy, the question of the valuation of foods was first considered. The valuation of purchased foods presented, of course, no difficulty, but in the case of home-grown foods the question was necessarily more complicated. Having regard to the fact, however, that the trouble of cleaning and marketing is avoided, and that these foods contain usually a great deal of small, unmarketable grain and seeds; remembering, too, that it is possible, by a judicious selection of the lower-priced feeds on the market to materially reduce the cost, it was thought that a valuation of \$20.00 per ton for meal should be considered well within reason. In the matter of other foods, skim milk was valued at 15 cents per cwt., and roots at \$2.00 per ton.

The cost of the maintenance of the pregnant sow was not definitely determined, but an approximation was arrived at which will scarcely be doubted to be other than fair and satisfactory.

The difficulty was found in the fact that pasture and many foods of practically no market value serve largely to maintain the sow while she is not suckling a litter. It was thought, however, that an estimate of 75 cents per month would be a reasonably average allowance. If the sow raises two litters per year, and suckles each litter six weeks, there will be left about nine and one-quarter months of maintenance between litters, amounting practically to \$7.00, making an amount, therefore, of \$3.50 to be charged against each litter.

A young grade sow depreciates little in value while suckling a litter, provided she is well cared for, and no allowance was made for such depreciation. Nor was any allowance made for interest, a matter of very small proportions in pig-feeding; nor for risk, which may fairly be eliminated in the average of a number of litters. To further simplify matters, labor was charged against manure, as is usually done in cases of this kind.

In an average of twelve litters, the average number of pigs to a litter proved to be 6½, and the average cost of feeding sow and litter during the six weeks' nursing period was \$3.74. These litters were bred in various ways, and included pure-bred Yorkshires and Tamworths, and crosses between Yorkshires, Tamworths and Berkshires. The ration fed was composed mainly of middlings and bran, in the proportion of 2 to 1 by weight. Sometimes a small proportion of ground oats was



Flambeau.

Thoroughbred stallion. A King's Premium winner.

well as giving information on these forms as to how the correspondence should be addressed, addressed envelopes were sent out with these forms. Notwithstanding this, the old forms still continue to come in, and correspondence is still addressed to Mr. Wade and sent to Ottawa.

This being the case, as there are bound to be changes in the ordinary course of events as time goes by, it was thought it would be better to have some permanent method of addressing correspondence which would not require to be changed. It is not a matter only of the correspondence being addressed in this way, but it makes considerable difficulty sometimes in the case of cheques, postal notes, express orders, drafts, etc., being made out in favor of an individual.

A number of applications for registration of Shorthorns up to the present time have been addressed to Mr. H. G. Wade, the late registrar for that breed. Mr. Wade has lately resigned, and is now located in Montreal. Before going to Montreal, he left instructions at the Ottawa Post Office that correspondence addressed to him should be forwarded to Montreal. The result is that the accountant of the National Records is receiving a lot of correspondence which comes to Ottawa, is forwarded to Montreal, and then returned to the Record Office, which probably makes a delay of two days before being received at the Record Office, by which time the certificate should be returned and in the hands of the applicant. Mr. J. W. Brant, the accountant, en-

added to the ration, and skim milk was fed when it was available. Adding now \$1.00 for service fee, and \$3.50 for maintenance of the dry sow, the total amounts to \$8.24, to be charged against an average litter of 6½ pigs. The total cost, therefore, of a single pig up to weaning time, according to this experiment, and at the valuation of the foods given, would be \$1.27.

At the time that the report was written, but five of the twelve litters had been marketed, and the following results apply only to these five lots. The pigs averaged 176 pounds apiece, and the average cost of food per pound of live weight, from birth to marketing, was 4.20 cents. To indicate how cheaply pigs may occasionally be raised, it may be stated that one lot was fed at a cost of 3.55 cents per pound, and another at a cost of 4.00 cents per pound. Adding now the fixed charge of \$4.50 per litter, the total cost per pound, including service fee and maintenance of dry sow, averages 4.61 cents. It should be explained that these were winter litters, and it is no doubt probable that summer litters can be fed more cheaply. It is stated that until further work has been performed these results must be regarded as merely tentative.

The results of the "Co-operative Experiments with Swine," which are also included in this report, have already appeared in "The Farmer's Advocate" columns in a summary of Prof. Day's address at the recent Winter Fair. It may be interesting to note, however, that although the basis and plan of work was rather different, and such as to make comparison a little difficult, the results of the co-operative experiments are in substantial agreement with those obtained at the College. At the highest valuation of meal, at \$23 a ton, and of weaned pigs at \$2.50 each, the average cost of production in an experiment including 95 pigs was 4.99 cents per pound. At the lowest valuation of meal, at \$20.00 a ton, and of weaned pigs at \$1.50 each, the cost was 4.07 cents per pound. At the average and perhaps fairest valuation of meal, at \$20.00 per ton, and of weaned pigs at \$2.50 each, the cost was 4.57 cents per pound.

The author comments that in these figures there is much of encouragement for swine breeders and feeders. We believe that they should give a more substantial status to the bacon industry in Ontario. There is a growing demand and a growing market for bacon products, not only in Great Britain, but on this continent as well. The Canadian farmer is in a better position, through the class of grain that he grows, to produce a more desirable grade of bacon than his American neighbor. That he can do it as cheaply as is here evidenced, is highly gratifying. We commend a consideration of these figures to every reader, and suggest that they prove a stimulus, not perhaps so much to an increase in the number of the hogs raised, but rather to an improvement in the quality and uniformity of the product.

BRUCE.

FITTING SHOW SHEEP.

I have a large flock of pure-bred Long-wool sheep which I desire to put in show and sale shape for the autumn trade. Kindly give your views as to the best methods of fitting, and particularly as to growing forage crops for feeding these sheep. Rape throughout the County of Kent has of late years been affected by aphid (small green lice). Can you recommend any substitute for rape that would not be affected by this pest? I thought of trying thousand-headed kale. Can anything be done to prevent the destruction of rape by the aphid?

SUBSCRIBER.

I cannot, perhaps, give your subscriber all the information he requires, but what I write may be of use to him later. In the first place, I assume that he had made up his mind last fall that he intended showing, that he has had his flock in proper shape for the show-ring up to this date. He knows what competition he has to meet. He has done all he thinks necessary to win prizes, except making provision for the summer feeding of green food.

I cannot advise, knowing nothing of the condition of the flock at this time or the feed available. If you will allow me, Mr. Editor, a little latitude, I feel like putting myself in the position as asked for. When I left Chicago or New York with the winning wethers, "What were they fed upon, and how did you win?" might have been asked. This is no secret, as I have often put myself on record through the press of Canada and the United States. But our people look for some mysterious cattle food or patent medicine wherewith to make winners. Don't do any such insane act. When medicine is necessary, let some educated veterinary surgeon advise.

I presume, from the inquiry, your correspondent has everything up-to-date, to his satisfaction. No doubt he has mangels to last over June; lucerne (alfalfa) hay, also, to same date. If he has lucerne, he will be able to cut it before June. For some years we have commenced cutting May 18th. If he has none of these, the earliest green

feed available will be red clover, followed by vetches and oats, one-half bushel of former to one of latter. Then sow cabbage seed as early as possible, same as turnips—one pound seed to acre; thin out to two feet in row; no transplanting; an early sort, and World Beater or Autumn King for late; they are the same. Sow kale same time, thin to 15 inches; then rape, then Yellow Aberdeen turnips; lastly, Swedish turnips. I ought to have mentioned mangels, but these are not fit for sheep feed, or rather not at their best until spring.

This growing of various green crops may look like puttering, as the Yankees say. Call it what one may, it is the secret of success in fitting sheep for show. The greater the variety of green crops, the better the chance to win, providing the stuff fitting for show are worthy of such efforts.

One time, years ago, while on a visit to my father, who then had a flock of 500 Hampshire ewes, on the chalk foundation in Hampshire, he had his lambs on two or three different varieties of green crops daily. We visited most of the noted breeders of pure flocks. Mr. Budd said: "All my show and sale rams never pass a day without sanfoin, summer or winter."

I would suggest to your correspondent, let your show sheep have lucerne offered to them daily. We can grow that when sanfoin is not a success, as far as my experience goes. One will be surprised how a bit of well-cured lucerne hay is relished as a dessert after a hearty meal of luscious rape or cabbage.

It may seem strange to most feeders that I have not mentioned grain. It is for the reason that grain, without these various green-crop foods, is as dangerous as handling dynamite. The sheep do well in the spring while green feed is available, but when the dry July and August comes, and no provision for luscious, cooling, appetite-satisfying green food, the grain only adds fire to the craving for what is not, and the sheep go back and never come again—as the shepherds explained the matter, "Oh, burned up."

To wind up this altogether too long letter, not written for your correspondent alone, but to those of your readers who are interested in showing sheep:

1. Grow lots of green feed of various kinds; the greater the variety, the greater the chance of success.

2. Do not forget to try lucerne; it will remain with you three, four, five or six years, and can be cut three times a year after first year.

3. Feeding this luscious, cooling food enables you to feed grain in the hot summer months.

4. Don't sow rape seed too early. In my experience, it is the early-sown that suffers from the aphid. I am not an entomologist, but I imagine, if at the first of the season the aphid did not find a suitable resting-place for the sole of his foot, we would not be troubled. I would advise later sowing. Spraying, while useful in the garden, cannot be successfully carried out in the field, and as the aphid works on the under side of the leaves, it is not easily reached by spraying.

5. No crop can equal cabbage, if properly cultivated—none so safe, no bloat, or loss of ears, and, for autumn feed, worth more than any with which I am conversant.

Middlesex Co., Ont.

RICHARD GIBSON.

SHEEP NOTES.

Lambs should be docked and castrated at two to three weeks old. Much loss results from neglecting these operations. Ram lambs, except pure-breds intended for breeding purposes, are a nuisance on the farm in the fall, and their selling value is much discounted. If the ewe flock has lambed, and are in good condition, all may be safely shorn now.

Yearling sheep in good condition should be shorn, unwashed, before going to grass. They thrive better in the warm spring days, and there is less loss from "tags" on the fleece.

Trim the hoofs of the flock before shearing. This may save trouble from an outbreak of foot rot. It is well to keep on hand a small phial of powdered bluestone to apply in case of hoof-ill or foul in the feet.

When sheep go to grass, they should be taken in and fed hay and a little bran and oats morning and evening for a while.

Provision should be made for sowing a patch of vetches, and another of rape, to supply succulent food for the lambs when pastures get dry. Lambs will be "trumps" this year, and will pay for good care in growing them strong.

THE FARM.

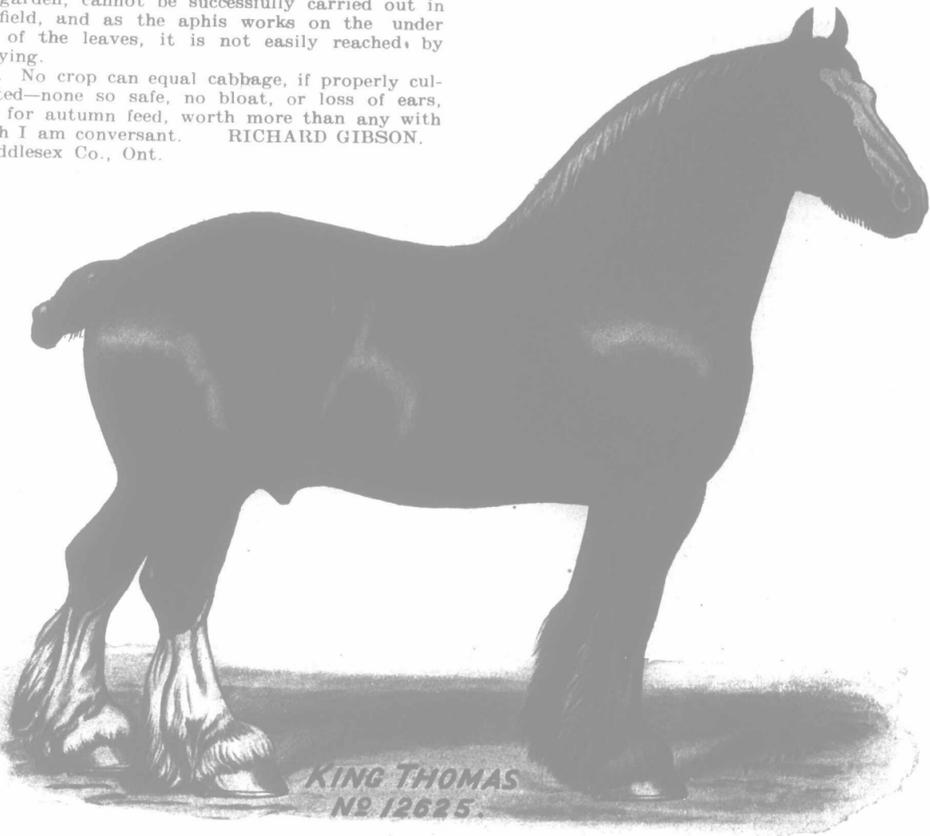
SOUND SILO SENSE.

Editor "The Farmer's Advocate":

I notice in your valuable paper from time to time questions asked regarding silo construction, and not long since one man asked if a silo 15 feet in diameter and 30 feet high would feed 30 cows six months. I have a silo 12 feet in diameter and 24 feet high, and it does that. I consider the silo quite essential to successful farming to-day. But while many are building some are tearing them down. Now, sir, I think it is a great mistake to make a silo 15 feet in diameter. Men who have had no experience with them cannot imagine what an amount of feed these great tubs hold. Ten, eleven or twelve feet at the outside is large enough, and make it as high as you like. With less diameter and more height your silage will both keep and come out better. If I wanted more room I would rather build two small ones than one large one, and the results would be much more satisfactory. I speak a truism when I say that many have become tired of the silo simply because they built cheap, poorly-constructed silos, with too great a capacity for the stock kept, and therefore had a lot of spoiled silage to throw out every year. My advice to those who contemplate building silos is: first know that you can grow corn successfully, then build well regardless of first cost; not too large in diameter, and as high as you like. Build them round, either of staves or cement, and the only regret you will have is that you did not have one sooner.

GAVIN BARBOUR.

Waterloo Co., Ont.



King Thomas (imp.) (12625).

Clydesdale stallion, brown, foaled 1902. Imported and owned by T. J. Berry, Hensall, Ont. Sire Prince Thomas, by Sir Thomas, by Prince of Wales 673.

ROTATION FOR CORN SMUT.

Editor "The Farmer's Advocate":

Regarding increase of smut in corn during recent seasons, I beg to say that while we have observed a little smut in our corn here each year, we have not considered that it has been on the increase. Neither in the experimental department, where corn has been grown for seed, nor on the College farm, where it has been grown for silage only, has it been necessary to take extra measures in the way of prevention. Information from the States is to the effect that rotation of crops is one of the best factors in the way of prevention known. Perhaps where rotation of crops has not been consistently practiced the presence of smut may be more noticeable than it has been here.

The reason why rotation is a useful remedy is found in the fact that the corn smut spores winter over in the ground, and only to a very slight extent on the grains of corn. The spores do not spread widely, and if the corn does not appear on the same ground for a period of three or four years, the probability is that the evil will be much lessened. This same fact will indicate that a treatment of the seed, as in the case of oats or wheat, viz., hot-water treatment or the formalin treatment, will not be effective for corn smut. These remedies are not advised by our College here, nor by stations in the States. The only remedies effective so far as I know are: first, the one mentioned, namely, rotation of crops; and, second, gathering the corn smut ears two or three times during the season and destroying them. This latter might be practicable in the case of small growers, but would hardly be possible on large farms. We think that the former remedy will be sufficient to prevent an increase of the smut.

Ontario Agricultural College. H. S. ARKELL.

CORNER POSTS.

Editor "The Farmer's Advocate":

I notice in "The Farmer's Advocate" of April 11th J. M. was wanting to know how to set corner posts, and his question is answered by illustration and description, but I would have objections to that method, especially when I think we have a far better plan. My objections are that that brace rod, if on a corner, obstructs the highway, and someone may get hurt some dark night, and the trouble may lead to a lawsuit; and also those end posts generally serve as gate posts, so that that brace rod would take up gateway. I will describe how we have set our end posts for three years, and have never had one to lift yet. Some stretches of fence are 80 rods long, 7 and 8 strands of No. 9 coiled wire, and stretched with horses and tackle. Dig a hole about 2 x 4 feet, 4 feet deep, or large enough for a man to get down in and throw out dirt; then take good-sized post, and 6 inches from lower end, on opposite sides of post; cut across post with saw 2 inches deep and 4 inches apart, and chisel out; now put a piece of 2 x 4 scantling in grooves and spike. Put post in hole, and after filling to top of scantlings, lay some boards on top and crosswise, making a platform, then fill in rest of earth, and you will have a post that will not lift, because it cannot lift all that dirt out. Caution: Do not rely on just spiking scantlings on post, for they will draw off, whereas by setting them in posts the end would have to draw off end post, which it will never do.

Welland Co., Ont. W. W. MARSHALL.
[Note.—A plan similar to the above was illustrated in "The Farmer's Advocate" about a year ago, but condemned afterwards by a correspondent, who argued, with some reason, we believe, that a mortise in the lower end of the post affords a place for rot to set in.—Editor.]

TO GUARD AGAINST FODDER SHORTAGE.

Editor "The Farmer's Advocate":

I trust your readers will pardon me for offering advice which may or may not be needed—that is, to preserve all coarse fodder that may not be needed this spring until we can better judge of the coming harvest. I see that both the American and Canadian meteorological officers forecast a dry, or much drier year than the preceding one. Our own opinion is that we shall be liable to late frosts. Should this prove so, it will mean short straw and a light hay crop. Taking into consideration the very great increase in the number of live stock, and the small amount of hay in stock, a shortage of fodder would be almost a calamity. We have already passed through two fodder famines in our farming experience, and we have learned since then never to waste feedstuffs until we see what the harvest prospects are likely to be. Our usual practice is to clean out all our manure yards in June, then cover them deeply with any spare straw or chaff we may have left. The cattle soon trample it down, and the yards are kept clean through the summer. This leads us to think of the corn crop as the farmer's stand-by in all seasons. In dry seasons, root crops are more or less of a failure, while corn, when once started, can laugh at dry weather and rejoice in the heat that shrivels other crops. To farmers on all kinds of soils, we repeat your sound advice, "Grow Corn." We have been growing it for upwards of thirty years, and never have had a failure. Some years it does better than others, but is always a paying crop. We hope to live to see the time when (to slightly alter Longfellow's lines):

"All around the happy homesteads
Stand the cornfields, green and shining,
Wave their green plumes in the sunshine,
Wave their soft and silken tresses,
Filling all the land with plenty."

If you do not like the corn crop, grow it and you will learn to like it. When once you learn to properly cultivate it, you will find it no more trouble than any other crop. The cultivation is mostly done between spring seeding and haying, the harvesting after your fall-wheat seeding and before root harvest and fall plowing. It can be grown in hills or drills, can be harvested by machinery or hand, stored in silo, or cured in shock and stored in barn green or dried, or made into silage, it is good, wholesome stock food, and the cheapest that can be raised. Grown for the grain alone, it is a very valuable crop. By growing the flint varieties, an average of 50 bushels may be obtained, which makes excellent feed for any kind of stock.

Simcoe Co., Ont.

FRED FOYSTON.

PRACTICAL HELP.

I was much pleased with index of articles for reference you sent out. The discussions on different topics have been very interesting and valuable to me, especially the cultivating of corn and sowing of clover seed. You have done well on King Corn and Queen Alfalfa. What Prof. Dean had to say about milking machines was very interesting. I wish we had more men (and I might say, agricultural papers) like Prof. Dean and "The Farmer's Advocate." I am very thankful to you for the information you have given your subscribers on barns and barn-building.

Missisquoi, P. Q.

B. A. WILSON.

DO SUGAR BEETS PAY?

Editor "The Farmer's Advocate":

I will give you my experience in growing sugar beets. I had two acres last year. I manured the ground, plowed and harrowed twice the previous fall, plowed and worked again in the spring; sowed beets early, had a good stand; plowed them four times, and scuffled every week in the hoeing season. Was to load the beets whenever we were ready. I got mine up early, but could not get shipping instructions. Finally I had to pit them, and never got shipping instructions until about Christmas. We loaded with four teams, and weighed every load (on scales which are inspected by Government inspector), and cleaned our sleighs out every time, and there was in the neighborhood of 2,500 lbs. difference in our weight and the weight at the factory. Mine tested 13.2, while one of my neighbors, who had a crop apparently no better than mine, who got them away early, tested 17. The amount taken off for dirt was about 7½ tons. If you had them covered with dirt you could not possibly get that much on them. I got \$49.00 for the two acres; charged for seed, \$5.40. We were to get paid for pulp on February 1st, but have not heard from the factory yet. If there is money in that, I think I will try some other way of making money.

Regarding the experience of others in the neighborhood: It was all right in the case of those who got their beets away in time, but those who could not get cars was something similar to mine.

Simcoe Co., Ont.

H. C. BLACK.

MORE USES FOR THE WEEDER.

Editor "The Farmer's Advocate":

In a recent number of your valuable paper I read J. E. M.'s article on the uses he makes of a weeder. I think were the uses to which it may be put a little more generally known, few farmers would be content to get along without one.

The weeder is about the first implement for which I find use in the spring. A Farmers' Institute lecturer, speaking of clover, remarked that farmers were more careless regarding the covering of clover seed than with grain. Does it not seem strange that a man should go to so much trouble to prepare seed-bed for wheat, barley or oats, the seed of which costs little over a cent a pound, and then throw away good clover seed, at eleven dollars per bushel, on a field, and let it take its chance, as so many do, when so little trouble almost ensures a catch. Some farmers, it is true, put harrows over the fall wheat after seeding with clover, but I think it the proper method to have a boy take one horse and the weeder; he can cover ten to fifteen acres in one day, shaking the seed down slightly, and not covering the wheat as harrows do, but working the ground finer. The cultivation is really beneficial to the wheat. Of course we make it a rule to sow the clover seed just so soon as the ground gets dry enough that the weeder will work properly. One of my neighbors seeded down his wheat last spring, put the weeder over half, then got too busy, letting the other half go. He has a nice catch of clover where the weeder covered the ground, while the other half is a total failure.

Then again, we find the weeder a great help on our potatoes while the plants are small. Although breaking a few of the plants, it lessens the after labor so much that I think it a great advantage.

Although raising twenty to forty acres of corn annually, we are not fortunate enough to own a horse planter, and, consequently, either drill our corn or plant with the old-fashioned hand planter, and we find the weeder to be a much nicer implement to level the field, after planting, than are the harrows. Anyone who has used a weeder on corn land knows its advantages; how it kills all small weeds and stirs and mulches the soil right in the hill better than a man could do it with a hoe.

Then when we are expecting haying to start shortly, when we think we cannot go through the corn with the cultivator again, we sow rape, turnips, or the mixture over the field; then, if the corn be not so tall that the top of the weeder will break the stocks, we put it through again to cover the seed, and cultivate the corn, right among the hills, for the last time. By this method we never need use a hoe at all, except to cut deep-rooted weeds, such as Canadian thistle, dock, etc., and have our fields not only free from weeds, but a short time after the corn is harvested, a green mat of the most succulent feed for stock, and at very small expense when our pasture



Artist, C. A. T. Some Pairs of Twin Yearling Lincoln Ewes.

Photographed and preserved here by A. D. McGowan, Glenora Stock Farm, Rodney, Ont.

has pretty nearly given out. I think J. E. M. and others will find it greatly to their own advantage to experiment further along this line, as I consider the weeder almost indispensable.
E. C. M.
Kent Co., Ont.

FORESTRY AND CITIZENSHIP.

A people without children would face a hopeless future; a country without trees is almost as hopeless. A true forest is not merely a storehouse full of wood, but, as it were, a factory of wood, and at the same time a reservoir of water. When you help to preserve our forests or plant new ones, you are acting the part of good citizens. The value of forestry deserves, therefore, to be taught in the schools. If Arbor-day exercises help you to realize what benefits each one receives from the forests, and how, by your assistance, these benefits may continue, they may serve a good end.—Theodore Roosevelt.

CULTIVATION OF CORN.

A study of the best methods of cultivation for corn has been made by almost every experiment station throughout the corn belt, but the soils of the different States, and different sections of the States, are so different in type and character, and are so influenced by climatic conditions, that no definite rules can be made that cover all cases. However, a few general principles have been worked out, and have been found to be of value, where practiced under average conditions.

Recent experiments in this State (Indiana) have proven that cultivation means bushels of corn, and that the corn-grower can do much to control the yield in the preparation of the seed-bed and the cultivation of the growing crop.

CONSERVATION OF SOIL MOISTURE.

One of the secrets of successful corn-growing is the early cultivation of land for the purpose of conserving the soil moisture. Careful experiments made by King, at the Wisconsin Experiment Station, and German investigators, show that to produce one ton of dry matter in the corn crop about 400 tons of water are required. This means that, for a good average crop of corn, an enormous amount of water is necessary. A study of the rainfall records for a number of years shows that the amount of rainfall during the growing season—May 10 to September 15—does not begin to supply the needs of the crop. If this be true, steps should be taken to hold in the soil as large an amount as possible of the fall, winter and spring rains. This can be done, in part, by disking the land in the spring as soon as a team can go on the soil and the danger of puddling is past. On land which has been fall-plowed, this cultivation will break up the crust and form a mulch, which will conserve the moisture and prevent the soil baking, in this way materially assisting in the preparation of the seed-bed.

FALL PLOWING.

Fall plowing cannot be recommended for all soils or all localities, but should be practiced more generally than at present. Fall plowing is preferable to spring plowing because it can be done at a time when the rush of work is not so great as in the spring. Fall plowing enables one to combat grub worms, cutworms, corn-root worms, corn-root lice, and other insects injurious to corn. The fall plowing opens up the soil and allows the moisture to enter more readily. It also allows earlier cultivation and insures earlier planting than spring plowing. Experiments have also shown that for a period of years fall-plowed land has yielded more corn than similar land spring-plowed.

DISKING BEFORE PLOWING.

Some work done in the way of disking land to be spring-plowed, before breaking, has given marked results in favor of this operation. The disking of the ground breaks the crust that may have formed during the winter, cuts up and incorporates with the soil any stubble or other organic matter that is on the surface, in this way aiding the capillary movement of the water. Where grass, straw, weeds or cornstalks are plowed under in the spring, we often find this intervening layer of organic matter is responsible for the failure of corn plants to secure sufficient moisture in periods of light rainfall or drought. By disking the surface soil before and after plowing, it is found that the soil is pulverized the entire depth of the furrow slice, which furnishes a larger and better-prepared field in which the corn roots may feed.

FOLLOW THE PLOW WITH THE HARROW.

In many soils, spring-plowed, lumps of greater or smaller size will appear. If these are allowed to dry and bake in the wind and sun, a very unsatisfactory seed-bed is oftentimes obtained at planting time. Much can be done to break these lumps or clods and form a mulch which will aid in conserving the moisture, if the plow is followed with the harrow. A satisfactory plan is

to harrow thoroughly each evening the land plowed that day.

EARLY PREPARATION OF THE SEED-BED.

The early preparation and frequent stirring of the soil before planting time is recommended. In this way a loose mulch is maintained, the ground is prevented from baking, and many insects, as the corn-root louse, are largely controlled. Ground that is plowed early in the season, and allowed to stand untouched until a few days before planting time, does not give, under average conditions, the best results.

TIME OF PLANTING CORN.

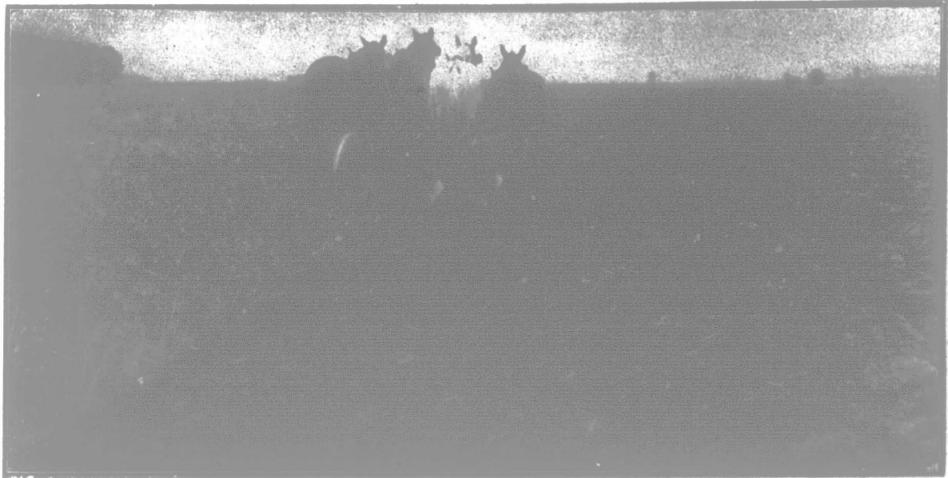
Since the date of planting varies with the season, the soil and the location, no definite time can be given. The results of experiments carried

land may be cultivated both ways during the growing season.

In deep soils, such as are found in the Mississippi Valley, the corn may be listed. This consists in throwing out a deep furrow and planting the corn in the bottom of the furrow. This practice is not to be recommended for shallow or stiff-clay soils.

CULTIVATION.

It has been found advisable to stir the ground once, and sometimes twice, between the time corn has been planted and the time it comes up. For this work, the spike-tooth harrow is generally used, but on light soils or soils that are loose and easily worked the weeder may be used. The practice of harrowing corn after it is up, followed by many good corn-growers, is opposed by some,



Usual Method of Breaking Corn Ground.

For spring plowing this is objectionable, because of the heavy growth of organic matter which will lay between the subsoil and furrow-slice, and in this way interfere with the capillary movement of water. Disking before plowing will improve this condition. The following of the plow each day with the harrow will assist in breaking down the lumps and clods.

on at this Station (Purdue) lead us to believe that, one year with another, the early-planted corn gives the largest yield. Early planting for this district is from May 1st to May 10th. Corn should, of course, not be planted in cold or wet ground simply because the calendar shows the usual time for planting has arrived, but, by good drainage, fall plowing, early cultivation, etc., every farmer should strive to have his land in shape at the proper time for planting.

PLANTING.

The method of planting corn will depend upon the character of the soil and the preparation of the seed-bed.

Land that is rough or very rolling; land that is well prepared previous to planting, free of weeds, and easily tilled, can be drilled to good advantage.

Soils that bake easily, and require much cultivation after planting; soils that have an abundance of weeds, or have had the seed-bed poorly prepared, should be planted in hills, so that the

for the reason that some of the corn is destroyed. It is true that a few plants will be pulled out or broken, but the results from harrowing, under average conditions, are such that the practice is to be recommended.

When the corn is high enough to row nicely, the cultivator should be started, and cultivators with narrow shovels that throw the soil but very little should be used. Fenders are usually found desirable to prevent the covering of the small plants.

In this connection comes up the question of deep versus shallow cultivation. In recent experiments it has been found advisable to cultivate to a good depth (2½ to 3½ inches) the first and second cultivation, shallower cultivation being given in the later cultivations. This practice is followed for the reason that in the early season the root system of the corn plant is not very extensive, and will not be injured to any extent by deep cultivation; while later in the summer, when the roots begin to occupy the larger share of the

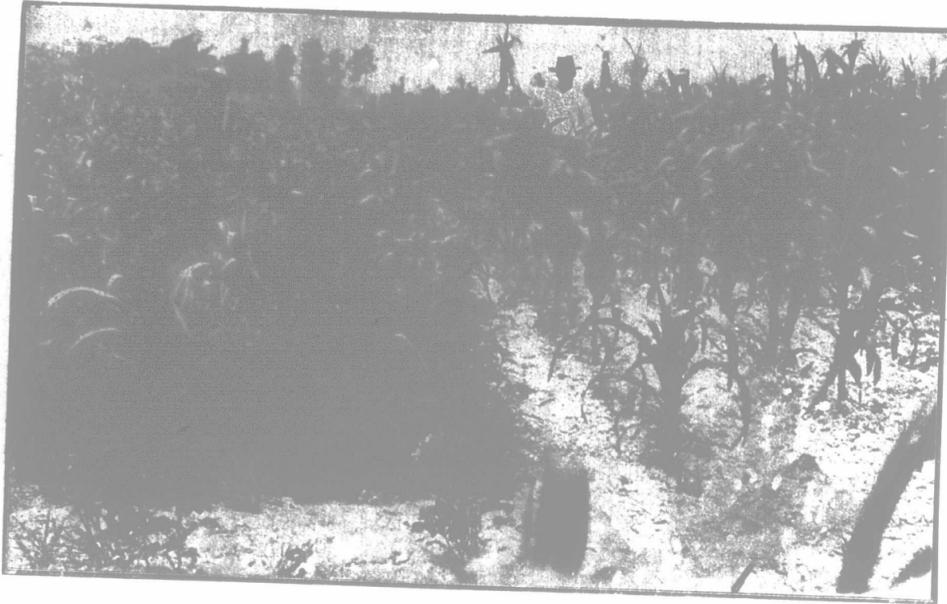


Result of Disking Corn Ground Before Plowing.

Plot 1 was plowed in the usual way and given ordinary cultivation. The stalks were small and weak. Plot 2 was disked before plowing, which was done at the same time as Plot 1, and was given similar cultivation. The stalks were large and strong, and the yield of corn was much above Plot 1.

ground, shallow cultivation is given, so as to prevent, as far as possible, injury to the roots. One fault of the average corn-grower is that he ceases cultivating his corn too early in the average season. If the season is dry and the condition of the soil demands it, shallow cultivation should be continued, even though the corn is tasseling. This later cultivation is best done with a one-horse, A-shaped cultivator, with teeth similar to that of a spike-tooth harrow, or the dragging of a mower wheel over the soil will do much to preserve the mulch. Late cultivation, where practiced, during the last two or three years, has made many bushels of corn.

G. I. CHRISTIE.
Purdue University Experiment Station, Ind.



Effect of Cultivation of Corn Crop.

Plot 1 received ordinarily good cultivation, and yielded 64 bushels of corn per acre. Plot 2 received no cultivation, and yielded 4 bushels of corn per acre.

THE DAIRY.

IMPORTANCE OF SHAPE IN UDDERS.

We have frequently had occasion to lay emphasis upon the importance of paying attention to the shape of the udder in cows. As all breeders of experience are aware, there are udders and udders, the best of all being the deep, square vessel, whose fore part rises well up under the abdomen, and whose point of attachment behind is also very high up between the quarters. The squarer and flatter the bottom or floor of the udder is, the better, as a rule, will the cow prove as a milker. And, conversely, the narrower and more pointed the lower aspect of the udder is—and, therefore, the more closely together the teats are placed—the poorer will be the milk-yielding capacity of the animal possessing it. The symmetry or shape of the udder is another point of considerable importance in this connection. In experiments which he conducted a few years ago, a well-known dairy expert found that in a number of cows which had the front part of the udder much smaller than the hinder or rear part, over one-half as much more milk was obtained from the latter portion of the udder than from the former. The better developed the udder is—in other words, the better balanced its fore and hind quarters—the better the milker the cow possessing it will prove.

COW-TESTING ASSOCIATIONS.

The following are reports of the results of cow testing under the associations named:

Shearer, Ont., for the 30 days ending 30th January, 1907: Herd average—Daily yield, 828 lbs.; test, 3.2; lbs. fat, 27.1. For 30 days ending 28th February: Herd average—Milk, 816 lbs.; test, 3.3; fat, 27.4 lbs. For 30 days ending 28th March: Herd average—Milk, 794 lbs.; test, 3.0; fat, 24.5 lbs.

Keene, Ont., for 30 days ending 28th March, 1907: No. of cows tested, 21; average yield of milk, 812 lbs.; average test, 3.2; average yield of fat, 26.5 lbs.

Cowansville, Que., for 30 days ending 25th January, 1907: No. of cows tested, 71; average yield of milk, 365 lbs.; average test, 4.8; average yield of fat, 17.6 lbs. Highest herd average—Milk, 526 lbs.; test, 5.3; fat, 28.2. Highest individual yield—Milk, 1,115 lbs.; lowest test, 4.8. For 30 days ending 28th February: No. of cows tested, 53; average yield of milk, 481 lbs.; average test, 4.6; average yield of fat, 22.3 lbs. For 30 days ending 27th March: No. of cows tested, 56; average yield of milk, 583 lbs.; average test, 4.2; average yield of fat, 24.6 lbs.

A COW STALL WITHOUT STANCHIONS OR CHAINS.

Most of our readers will remember seeing in "The Farmer's Advocate," of Sept. 20th, 1906, a barn plan with description taken from a recent bulletin prepared by F. M. Logan, for distribution by the British Columbia Department of Agriculture. This bulletin contained some striking new ideas in barn construction, the two chief features being that the stables were frame annexes of the main barn, while the latter was distinguished by its arch-rib balloon frame. The bulletin also included an illustrated description of a cow stall, which was designed to do away with neck ties and stanchions, the cow being held in place by a gate on each side of her, and a chain stretched across behind. This cow stall

dirty the platform on which she stands; at the same time, this arrangement gives her more freedom than it would be possible for her to have if she were tied by the neck or head. A further argument in favor of this method is that it prevents a cow from slipping into the gutter when reaching for feed, or when turned out of the stable, which often proves serious, as abortion has doubtless been quite often caused in this way.

"When you wish to let a cow out of her stall, you open the gate at the side, which, by the way, serves as a division, giving each cow a separate stall. The cow turns and comes out through the stall next to hers, which permits her to step across the gutter instead of into it, as she would do if she were backed out, as is usually done. Before the cows are let into the stable again the gates are closed and fastened, and the chains are unfastened and hooked up at one side. This allows each cow to go into her own stall, after which all that is necessary to make them secure is to walk along behind them and again snap your chains or ropes. Cows tied in this way can be fastened and unfastened in one-quarter of the time required to do this if tied by the neck.

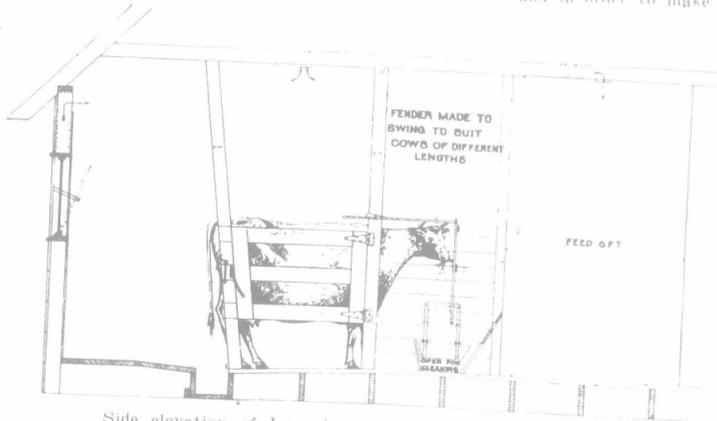
"When you desire to go in beside a cow for the purpose of milking her, you simply open the gate against the cow in the next stall, and the chain being fastened to the gate prevents this cow from backing out of her stall. By being able to swing this partition over against the next cow you have a good deal more space than you would have if the division between each stall were stationary. As a cow is always milked from the right side, this gate must swing to suit.

"I could have designed a fastening for this gate which would have been nearer automatic than the one shown, but it is difficult to have an arrangement which would be automatic and at the same time absolutely secure. This fastening, while not automatic, is not unhandy, and it would be about impossible for an animal to get a gate open if fastened in this way. They are certainly not expensive, as any blacksmith can make them by simply cutting up a bar of half-inch iron, and bending one end in the form of a loop, which serves as a handle, prevents the rod from dropping through the staples, and makes a place to which a string or small chain may be attached for hanging it up. This string can be fastened to a staple, which should be driven in the edge of the upright stud, over the gutter, so the bolt will always hang where it will not interfere with closing the gate, and at the same time be in a convenient place when wanted. Two large-sized wire staples with this bolt makes the fastening complete.

"These stalls should be about 3 feet 6 inches from center to center for the ordinary sized cows. Some make them only 3 feet wide, which does fairly well for small cows, but is too narrow for large ones. It looks better in a stable to have the cows graded according to size rather than to have them indiscriminately mixed. If this were done, the width of the stalls could be made to suit different sized cows. If you should find that a cow is able to turn around in her stall, after the gate is fastened, you can very easily prevent her doing so by making a sort of rack to put on the side of the gate. This can be done by using pieces 1 by 3 inches to put on edge, up and down the gate, and then nailing slats on horizontally, thus making the stall 4 inches narrower than it was before, which will no doubt have the desired effect. This can be put on with screws or wire hooks and removed easily when no longer needed.

"You will, of course, have cows of different sizes, and in order to make them stand so all the droppings will fall in the gutter, I have devised a movable feeder, as shown in the figure. As a cow, in lying down, will lower her front part first, she will always lie far enough back in the stall to keep the platform clean, so it is only when she is standing that we need to regulate her position. This fender will compel the cow to stand in the proper position, and can be adjusted to suit different lengths of animals, by merely taking out the wedges which hold the braces of the fender at a certain notch, and sliding them to the notch desired.

"The manger of the ordinary stable in Canada is not only a disgrace to the different stockmen, but is an actual menace to the health of the animals. Most of these stables have a manger for each animal, which is desirable, for if there are no divisions the best fighters will get more than their share of the feed, and some will not get enough. The objection, however, to individual mangers is that there are four corners to collect rubbish and dirt, and these are usually very difficult to clean, with the result that the manger is always dirty, and in ordinary cases decidedly unfit for stock to eat out of. To do away with the four objectionable corners in each manger, I have devised a plan whereby the lower board in the division can be made to lift up, about six inches, say, so when you wish to clean the mangers you would walk along the passage and hook



Side elevation of Logan's sanitary cow stall and manger.

THE LOGAN SANITARY COW STALL.

"A cow tied by the neck with a chain, or with the old-fashioned stanchion, has the privilege of stepping forwards and backwards for a distance of two or three feet. This liberty permits her to step back into the gutter, and after getting her feet covered with manure, she will step up on to the platform, where she deposits this dirt, and then lies down in it, with the result that some (far too much) finds its way into the milk pail. The device shown here prevents this entirely. With a rope or chain stretched across the stall just back of the cow it is impossible for her to step back into the gutter, while the fender in front prevents her from going so far forward that she is liable to

up all these boards, then take a broom and sweep the dirt from one manger to another till you come to the end. As there would be no corners to dig out, this would require but a few minutes, and you would then have no difficulty in keeping the mangers thoroughly clean. The hay would be fed from the passageway in front, and the slats on the fender should be far enough apart to allow the cow to draw the hay through, but at the same time prevent her from throwing it out of the manger or getting it under her feet. Pulped roots, ensilage, grain, etc., would, of course, be put in from the passage in front, while the cow can get it at the bottom of the manger from the other side of the fender. The mangers could, of course, be made of cement, and the partitions in them of thin steel or wood, which would make them still more sanitary and easier to keep clean.

"The question might arise that it would not be wise to sweep the dirt from one manger to another, on account of the danger of spreading contagious or infectious diseases. Authorities on this subject, however, claim that these diseases are spread by the germs becoming dry and floating in the air, rather than by the animals coming in contact with each other, so I think there would be little or no danger if this style of manger were adopted.

"A light wire link chain, with a snap on one end, would make the cleanest and best arrangement to put across each stall to keep the cow from backing out. These chains can be purchased for about 25 cents each, and should last a lifetime. The staple on the gate to which this chain is attached should be in a plate and put on with screws or bolts, as it would be liable to split the board or pull out if simply driven into the wood. Some hardware dealers are communicating with an eastern firm in regard to having these specially made, so anyone requiring them will be able to procure them at very moderate rates."

A BRITISH COLUMBIA DAIRY FARM.

Editor "The Farmer's Advocate":

As you get but few letters from B. C. farmers, I thought it might not be amiss to send a few lines concerning our dairy farm of 300 acres, in the Chilliwack Valley. We milk between 50 and 60 cows the whole year; about the same in winter as in summer. In order to keep up the

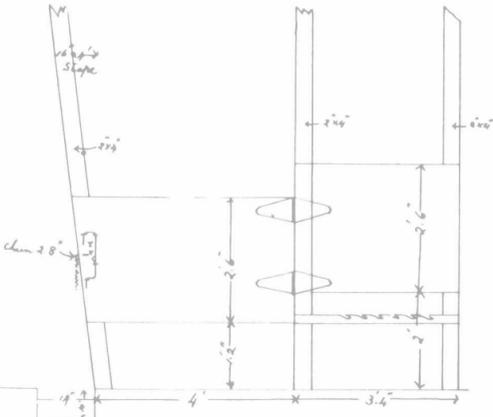


Fig. 1—Side view of Mr. Wells' cow stall.

number and secure good cows, we raise all the heifer calves. The Babcock test has been a great help in weeding out the poor cows, which we send to the butcher. In the spring cows are on the grass by first of May, and are fed a little clover hay and ground oats until the grass becomes firm. The pastures are usually green until November, and cows get nothing but grass. Sometimes, however, in the months of July and August, pas-

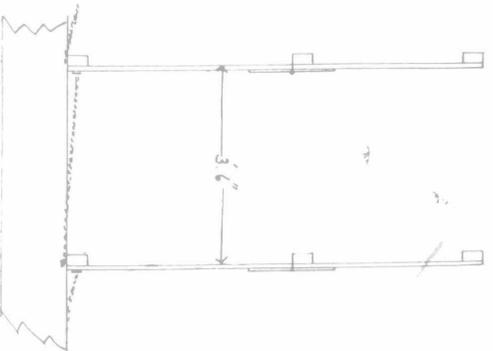


Fig. 2—Ground-floor plan of Mr. Wells' cow stall.

tures become short, then the cows get newly-cut clover night and morning in the stable while they are being milked. Our winter feed is: Ensilage, 500 pounds; cut straw or clover, 100 pounds; pulped mangels, 300 pounds; bran, 75 pounds;

oats, ground, 75 pounds—the whole well mixed at least 12 hours before using. The heavy milkers are fed from 5 to 10 pounds each of ground oats and bran per day, according to the quantity of milk given. This grain is fed with the roughage, so that it will be all eaten together. We have been trying for 15 years to arrange the cow stalls so that we could keep the cows clean and free from manure, which so much disfigures the

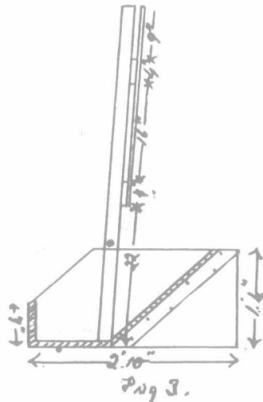


Fig. 3—Cross-section of manger.

cow, and makes it so hard to get clean milk. We have at last succeeded. We put in new stalls in winter of 1905-6. Since then we have had almost perfect success. If the cow in her stall is properly managed, it is impossible for her to get herself dirty. Each cow has a stall. The manger is movable, so that whether the cow is long or short, the stall is made the right length, so that the hind feet are near the gutter, and to

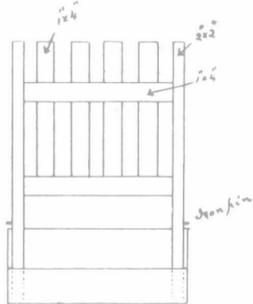


Fig. 4.—Front view of Mr. Wells' cow stall.

prevent her backing into the gutter a small rope or chain is hooked across behind, just above her hocks. The gutter is ten inches deep and twelve inches wide; the top is half an inch below the level of the floor; the floor slopes a little to the gutter so that liquid will run to gutter. The cow has perfect liberty. Not being tied, she can stand or lie at will without soiling herself.

ALLAN C. WELLS.

AN AMBITIOUS DAIRYMAN.

Editor "The Farmer's Advocate":

I have been keeping individual milk records for something like two years. It takes me one minute per day per cow to weigh her milk and set down the weight. I keep a spring balance and a sheet with each cow's name or number directly back of my cows. I started this record to ascertain, if possible, which cows were paying me a profit and which were not. I also have a four-bottle Babcock tester, and test my herd once a month; it takes four minutes per month for four cows, and a definite knowledge may be had of which cow really pays. I have learned in these two years that the cows I should have called very good ones before, are fit only for the butcher.

I think, if a man will begin to weigh each cow's milk morning and night, and see what a small amount of time it takes, he will soon get interested in each cow, will feed better, take better care of his herd, and, therefore, receive a larger income. I will here give an instance of two of my cows. One was a grade Shorthorn, of which I was proud, the other a small grade Ayrshire. The Shorthorn would eat twice as much as the Ayrshire (this was when I began my records). She was giving 35 pounds per day; her test was 02.3. The Ayrshire was giving 25 pounds per day; test, 04.6. The Shorthorn would go dry four months out of twelve, the Ayrshire one and a half out of twelve. Now I am

getting my herd where they are giving a better flow of milk, and a good-testing herd. In 1904 I got an average of 3,000 pounds of milk per cow per annum; in 1905, 4,000 pounds; in 1906, 4,800 pounds; and still a good chance to gain. This was done simply by weeding out my poor cows. I am in hopes to soon reach the 8,500 mark, with 300 pounds butter-fat. I think, by using the spring balance, the Babcock test, saving the heifer calves from my best milking and testing cows, and using a pure-bred sire from a good milking strain, I can soon reach the mark I am aiming for.

Stanstead Co., Que.

L. S. COLT.

TEN - COWS RECORD.

Editor "The Farmer's Advocate":

Hartman Snider, who lives about one mile from Ernesttown Station, G. T. R., in the County of Lennox, drew \$695.95 from Farmer's Friend Cheese Factory for the product of ten cows, this being an average of \$69.59 each, besides keeping the Sunday morning's milk for butter part of the season. The factory started April 11th, 1906, and closed December 1st. His cows are grade Holsteins. This does not count calves or spilt milk.

Lennox Co., Ont.

HARVEY LUCAS.

POULTRY.

RAISING TURKEYS.

ELEMENTAL INSTRUCTIONS.

A Huron County subscriber asks us to give a few instructions on the raising and feeding of young turkeys. This subject was admirably covered in a series of three articles by W. J. Bell, of Simcoe, Ont., in "The Farmer's Advocate" of March 15th, March 22nd and April 5th, 1906. However, for the benefit of new readers, we shall undertake to summarize Mr. Bell's points, and will also be pleased to hear from anyone who may find time to contribute a helpful letter, based upon personal experience.

We all know that turkeys require ample range. It is well not to keep more than one bird for each two acres of land in the farm. Turkeys are great foragers, and will glean a good part of their living from waste grains and grasshoppers in the fields, if given a fair chance. Overstocking increases the amount of extra feed necessary, saturates the premises with some chemical or bacteriological material or other that militates against their thrift and greatly increases the chances of loss by specific germ diseases, such as blackhead and roup. The more fowls, or, for that matter, the more stock of any kind, kept together, the greater the chance of introducing diseases, and the greater the damage sustained if they are introduced. This is the greatest obstacle to the success of special poultry-farming, and it applies more to turkeys than to any other kind of poultry.

Needs in the way of shelter are easily supplied. An airy building is sufficient for the worst weather. Close buildings are injurious to health and thrift. The ordinary henhouse is too warm and stuffy. Basement barns are especially to be avoided.

The age of breeding birds is unimportant, but good strong, healthy, well-matured females of medium size, mated to a good-sized, long, vigorous male, will prove the most prolific mating, and on an average five females will be required to make sure of fifty poults. Some undertake successfully to break up the hen from hatching after laying her first clutch of eggs, set these under a hen, and have her lay another lot; but the plan is open to objections. A turkey is the best mother for her own poults, and an early-hatched turkey is worth much more than a late one. The latter are the first to contract disease, and often introduce it into a flock that would otherwise remain healthy.

The breeders should be in only moderate flesh, and to prevent the females becoming too fat, grain should be withheld from them towards spring. The male should have a good feed of oats or wheat each day. In selecting breeders, give the preference to those long in body and short in leg, as they do not show such a prominent breastbone when dressed as do the deep, short-bodied specimens.

Regarding the matter of inbreeding, Mr. Bell claims that in the beginning of his turkey-raising experience he selected his birds for many years, and bred them irrespective of relationship. He found the size was actually increased, but admits that deformities, such as crooked toes, wry tails and crooked breasts, were becoming common. To obviate this evil, he now buys an occasional female from a good flock and mates her to one of his best males. From the produce, he takes the best female and mates the following season to her sire. From this progeny he selects the best male to mate with his original females. Mr. Bell claims that the untoward effects of inbreeding come from selecting the worst specimens as breeders and sending the best to market. For our

own part, we cannot help looking askance at the idea of such close breeding. No doubt an intelligent, capable breeder, who feeds well and takes good care of his flock, may inbreed to some extent with impunity. It was the selection, care, feeding and general management that accounted for the increase of size in his birds, but Nature raised her protest after all, in the form of increasing tendency to deformity, and had not a change of practice been resorted to, we have no doubt other unfortunate results, such as lack of constitution and barrenness would have resulted in course of time. The turkey fancier may be driven to breed closer than otherwise desirable in order to propagate the results of his selection for type and points, but to the commercial grower of market poultry, our advice is not to inbreed more than can reasonably be helped. We suspect that many a successful poultryman would be still more successful, from a utility point of view, if he inbred less.

LAYING AND HATCHING.

Boxes so constructed that young turkeys cannot get out of them should be fixed in near-by fence corners and outbuildings early in spring, even the last of March, as the hen will be on the lookout for a nest some time before laying. Chafy straw makes good nesting, but should be renewed before the turkey is set. Gather each egg as laid, and keep in bran in a cool room, turning it at least once a week. When removing an egg from the nest, it is well to leave a hen's egg instead. This is cheating the old turkey, of course, but so long as she doesn't know it, who cares? When the turkey is unquestionably broody, give her the eggs—never more than 20—and dust the nest thoroughly with fresh insect powder. Make the nest fairly flat, otherwise they will all crowd toward the center and some may be broken. If she is liable to be bothered by dogs or skunks, close her on the nest at night. Make sure that she can find water when she comes off. About three days before the four weeks are up, shake insect powder freely over the hen on the nest. A start free of lice is an important point in turkey-raising. Mr. Bell says he has never had to grease a young poulter for lice, and he gives the credit to the pre-natal application of insect powder. If a young bird should become lousy, use insect powder in preference to grease. If a coop that has been used the previous season is to shelter the brood, whitewash it thoroughly at the time of dusting the hen, so that it may be dry when required.

[Note.—Having carried the reader through the preliminary stages of the business, we shall leave him to digest the above, reserving the balance of the article "to be continued in our next."]

From East Middlesex, Ont., comes the report of a precocious pullet, which began productive enterprise at four months of age, laid about three dozen eggs, and then wanted to sit. From seven eggs she hatched as many chicks, and is still on the sunny side of six months. Her owner wonders whether any Professor's fowls can beat this record.

GARDEN ORCHARD.

THE ADORNMENT OF RURAL HOMES.

III.

By Prof. H. L. Hutt, Ontario Agricultural College.

By the judicious planting of trees alone, the general appearance of many homes may be greatly improved, but there is nothing like shrubs and vines to tone down the harshness and give detail and finish to the picture. These present such variety in form, foliage and flower, that no lover of Nature's handiwork who has room for them can afford to be without a good collection. A lengthy list of varieties may be found in any of the nurserymen's catalogues, and many good kinds may be found growing wild in most any section of the country. With such a number to choose from, the amateur is often bewildered in making a selection. As a guide to the intending planter, we would recommend the following as a dozen very desirable hardy flowering shrubs to begin with. These are selected as a few of the best among the hundreds which have been tested on our College grounds, and whatever stands the climate here, we feel safe in recommending for the greater part of the Province. These are named in the order of their season of bloom, the first coming in bloom with us about the end of April, and the last holding on till late in the autumn. The dates of bloom are given to show how well the season may be covered from early to late.

1. Forsythia, or golden bells, in bloom about end of April, and lasts about three weeks.
2. Ribes aureum, or golden currant, in bloom the second week of May, lasts two weeks.
3. Pyrus Japonica, or Japan quince, in bloom about 15th of May, lasts nearly three weeks.
4. Caragana, or Siberian pea-tree, in bloom about 24th of May, lasts over a week.
5. Lilacs, in great variety, some in bloom about 24th of May, and last about two weeks, others in bloom as late as the 1st of July.

6. Bechtel's double-flowering crab, in bloom about first of June, and lasts two weeks.

7. Spiraea Van Houttei, in bloom about third week in June, and lasts about two weeks.

8. Viburnum opulus sterilis, or snowball, in bloom the first week of June, and lasts over two weeks.

9. Lonicera Tartarica, or bush honeysuckle, in bloom the first week of June, and lasts about a week.

10. Weigelia rosea, in bloom the first weeks of June, and lasts nearly three weeks.

11. Philadelphus, or mock orange, of several varieties, in bloom about 15th of June, and lasts from two to three weeks.



Shaded with Maples and Adorned with Vines and Climbers.

Home of A. W. Peart, Burlington, Ont.

12. Rhus cotinus, commonly known as purple fringe or smoke tree, in bloom about the middle of July, and plumes last till November.

13. Hydrangea paniculata grandiflora, in bloom about the middle of August, and lasts about three or four weeks.

For southern sections of the Province, this list might be greatly enlarged to include many of the more tender kinds, such as the Altheas, Deutzias, Laburnums, etc., which are not hardy at Guelph. In arranging shrubs upon the grounds, it is well to avoid the common mistake of scattering them all over the front yard. The front lawn, as has already been mentioned, should be kept more or less open to give an air of breadth and expanse to the grounds. A few fine specimen bushes may be planted singly where they have room for full development and show to good effect; but, for the most part, the best way is to



A Cosy Cottage.

Sheltered with evergreens and shaded by a stately elm. The perennial border in the foreground bounds the lawn in front.

arrange shrubs in groups or clumps, massing them towards the borders and at the back of the lawn. They may thus be planted next to deciduous trees, not so close as to be overshadowed by them, but in a way that they will help to blend the trees with the lawn. When planted in masses, the larger-growing kinds should, of course, be planted in the back end or center of groups, and the smaller kinds brought to the front, where their drooping branches sweep the grass. Shrubs may also be used to advantage near the buildings, to

unite in the most harmonious way the walls of the building with the surface of the lawn. In grouping them thus about the buildings, the taller specimens may stand in nooks and corners where they do not obstruct the view from the windows, while lower-growing kinds may be planted beneath windows, and in this way a varied and pleasing outline will be presented to the eye, rather than a continuous hedge. Along the drive and near the walks shrubs may also be used with good effect. Wherever a curve is made in a drive or walk, there should be some object to make the curve appear necessary, and nothing answers this purpose better than planting a clump of shrubs in the bend.

The more one is acquainted with the habits of shrubs, and knows the ultimate size to which they will grow, the better he can arrange them to give the most pleasing results; but it is well to plant them fairly close, and thin out or transplant afterwards, as may be found necessary, to give desired effect.

It is well, in planting upon the lawn, where cultivation cannot conveniently be given, to mulch the ground heavily around the bushes with coarse, strawy manure or other material which will hold the moisture and enable the roots to make a good start.

In caring for shrubs and trees about the home, the main thing is to keep them growing thrifty and healthy. As a rule, very little if any pruning is necessary, except with roses and flowering plants of that kind. Each tree or bush should be allowed to develop its own natural form. We cannot too strongly condemn the practice of spoiling beautiful trees and shrubs by clipping them into unnatural shapes, as is often done with evergreens. In proximity to large public buildings, the architectural style of gardening, in which trees and shrubs are clipped into regular form, may be adopted if it is in keeping with its surroundings; but on the rural lawn, where the surroundings are all more or less natural, and even on city lawns, where the buildings are not pretentious, these clipped vegetable curiosities are ridiculous. And, for the same reason, many other artificial constructions, which are from time to time introduced on otherwise natural grounds, are to be discouraged.

Vines and climbers are particularly valuable upon village and town lots where the space is limited and all the surface available is desired for the growth of plants, but they are none the less valuable for the adornment of rural homes, and may be used in conjunction with ornamental shrubs to add beauty to the buildings, and unify them with the lawn and its surroundings. There are many kinds of beautiful climbers, differing in their luxuriance of foliage, vigor of growth and habit of climbing. Some are particularly adapted for climbing upon brick or stone walls. For this purpose, there is nothing better than the Boston Ivy (*Ampelopsis veitchii*) where it is sufficiently

hardy to stand the winter. At Guelph it is not sufficiently hardy to be depended upon, although if given protection for two or three winters it often covers a wide stretch of wall, but then may be killed back to near the ground. One of the hardiest climbers is the Virginia Creeper. There are two forms of this: the commonest one (*Ampelopsis quinquefolia*) climbs by means of tendrils, and is one of the best to cover a wooden building, or hide from view an unsightly outhouse. The other (*Ampelopsis quinquefolia*, var. *Engelmanni*) cling to the brick or stone almost as well as the Boston Ivy. The Climbing Bittersweet (*Celastrus scandens*) is a rampant-growing vine, found wild in many parts of the country, which climbs by twining, and, if given a chance, will soon climb the pillars of a veranda and festoon the balcony. The Trumpet Vine and Climbing Honeysuckles are also valuable to give variety in flower and foliage. Among the flowering vines, one or more of the varieties of Clematis are excellent to cover a screen or lattice. Two of the best of these are Clematis Jackmanii, the large, purple-flowered one blooming in July, and Clematis paniculata, the small, white-flowered one, blooming in October. The Rambler roses, too, deserve a place about every home. Of these, the Crimson Rambler is the favorite.

In planting vines and climbers about a dwelling, care should be taken to see that they are planted in good rich soil. A common cause of failure with them is that they are planted in the

hard, bare subsoil excavated from the cellar, which is usually banked around the cellar walls. If the soil is not of good quality, it should be dug out, and good rich soil put in its place. Nor should vines be planted so close to the wall that they are deprived of moisture by overhanging eaves. On the other hand, the lack of eave-trenches may allow them to get more water than they can stand.

THE BROWN-TAIL MOTH IN CANADA.

By Dr. Jas. Fletcher, Dominion Entomologist, Ottawa.

In 1902 Mr. William McIntosh, of St. John, New Brunswick, took a single male specimen of the brown-tail moth (*Euproctis chrysorrhœa*, L.) about 20 miles from St. John, N.B. About the same time another specimen was taken by Mr. Gordon Leavitt, at St. John, and in July of 1905, Mr. John Russell took a third specimen at Digby, Nova Scotia. Up to the present time these have been the only authentic records of this much-to-be-dreaded insect having been taken in Canada. Recently, however, I have received from Mr. C. Perry Foote, of Lakeville, Nova Scotia, one of the winter nests of the brown-tail moth, filled with the living caterpillars, thus proving that this insect has established itself at one place at least in Canada.

It was to be expected that the moths might be found here at any time, having been brought up direct from Massachusetts on one of the steamboats which ply regularly between Boston and the Maritime Provinces, but this would not necessarily prove that the insect had established itself. The occurrence of the young caterpillars, however, is a more serious matter, and shows that energetic measures are necessary at once to suppress and possibly to wipe out this unwelcome visitor before it becomes more widespread. The recognition of the winter nests is an easy matter, and this is the time of year to attend to their destruction. The brown-tail moth passes the winter as a very young caterpillar, and large numbers of these form colonies at the tips of the branches of the trees upon which they have been feeding the previous summer. The eggs are laid during July, and on hatching the caterpillars feed for some time on the upper surface of the leaves. As winter approaches they crawl to the tip of a branch and bind together a few leaves so as to make a tent. This is securely closed up with silk, and the caterpillars remain dormant all through the winter, and until the buds burst the following spring. These winter nests are easily recognized, from being almost invariably at the tips of the branches, and from being at this time of the year the only nests which contain colonies of living caterpillars. These latter are black, but covered with rusty hairs, and on the 10th and 11th segments towards the end of the body there are two reddish-yellow cushion-like tubercles, one on each segment, which the caterpillars can elevate or depress at pleasure.

WHAT TO DO NOW.

The only way in which the brown-tail moth passes the winter is in the shape of these half-grown caterpillars, little more than one-quarter of an inch in length, in colonies of between two and three hundred, inside these nests of leaves at the tips of the branches. These are easily seen, and everybody in Nova Scotia and New Brunswick who is concerned in the successful management of orchards, and every citizen who is interested in the beauty of the town he lives in, should examine and look to the destruction of every nest of leaves found to contain caterpillars, which he may notice. The destruction of these winter nests is the most effective means of keeping them within bounds.

A DANGEROUS ENEMY.

With the exception of the San Jose scale there are no two insects which have attracted so much public attention, nor with regard to which so much money has been spent in America by the State and Federal Governments of the United States, as the gypsy moth and the brown-tail moth. Both of these are pests introduced into America from Europe—the gypsy moth about 1869, and the brown-tail moth somewhere about 1890. Millions of dollars have now been spent on fighting the gypsy moth and the brown-tail moth in Massachusetts and the adjoining States. Dr. Howard, when treating of this insect, and an effort which is being made to introduce European parasites, says, in the Yearbook of the Department of Agriculture for 1905: "The brown-tail moth has become even more abundant and injurious than the gypsy moth, and, owing to the fact that the female flies readily, whereas the female of the gypsy moth does not fly at all, the brown-tail moth has far exceeded the gypsy moth in its spread.

PLANTS INJURED.

These caterpillars injure nearly all of the large and small fruits, and many perennial plants. The pear and apple seem to be favorites, but stone fruits, elms, maples and the oak are also commonly injured. A list of over 80 different kinds of food plants was published in 1903. Thousands of fruit trees in the vicinity of Boston, Dr. Howard says, have been killed by the brown-tail moth.

THE BROWN-TAIL RASH.

Not only are the caterpillars of this insect voracious upon the foliage of many kinds of trees, but

they cause much annoyance from their stinging hairs, which cause excessive irritation when they come in contact with the human skin. Each hair is barbed, and at the time the cocoons are spun these hairs are broken off and carried by the wind, when they fall on the neck and other exposed parts of the body, giving rise to the painful rash, which is very serious with some people, even although they may not have actually touched the caterpillars. Dr. Howard's assistants who have been working on this insect have suffered very severely, and persons engaged in removing the nests from trees in the winter time must be careful not to handle these nests too freely, or they may be inconvenienced by this rash. The nests should be cut off from the trees, placed in a basket with as little handling as possible, and burnt at once. Dr. Howard states that "a large part of the popular feeling in New England that the brown-tail moth must be exterminated, is due as much to the annoyance of this rash as to the loss of vegetation from the caterpillars." As a remedy for this rash a free use of vaseline is recommended.

DESCRIPTION OF INSECT.

The brown-tail moth resembles very closely the well-known fall webworm, being of a beautiful pure white, except the tip of the body, which in both sexes is brown, and from which the popular name is derived. The female bears at the tip of the body an almost globular tuft of brown hairs. Both sexes fly freely, and are much attracted to lights—a fact of some importance as affecting their spread. The search-lights of night-sailing passenger steamers has attracted so many as to have drawn the attention of the officers of such vessels, who reported that moths have alighted upon their ships in great numbers in the vicinity of Boston about midnight on several occasions, and the introduction of the species at more than one seaport in Maine is attributed by Dr. Howard to vessels coming from the infested districts rather than by natural spread by direct flight.

ONLY ONE BROOD IN THE YEAR.

The eggs are laid in masses containing about 300 eggs. These masses are brown in color from a thick covering of the golden brown hairs from the tip of the body of the female moth, and the whole egg mass more nearly resembles a silky, downy caterpillar than a cluster of eggs. These masses average about two-thirds of an inch in length by one-fourth of an inch in width, and are found on the lower surface of the leaves in July. The caterpillars hatch in August, but do not injure the trees much before winter. As soon as the buds burst in spring they are at once attacked by the caterpillars, which emerge from their winter shelters and do much harm.

SUMMER TREATMENT.

If the winter nests of the caterpillars have not been destroyed, trees should be sprayed with arsenical or other poisonous washes, so as to destroy the caterpillars during May and June. The caterpillars of the brown-tail moth are not so resistant to the poisonous effects of Paris green as are those of the gypsy moth. The spraying of all orchards with the poisoned Bordeaux mixture as a regular practice is recommended to all Canadian fruit-growers as the best general means of securing first-class fruit free of most of the ordinary pests which injure fruits. As the brown-tail moth caterpillars attack many other kinds of trees than fruit trees, it will be necessary that they should also be sprayed, and for this purpose Paris green may be used. A good useful poison wash consists of Paris green, one pound; fresh lime, one pound; water, 160 gallons. It is a very usual practice, however, among fruit-growers to use more than one pound of Paris green with lime in the 160 gallons, and, indeed, two pounds may be used without danger if two pounds of lime are added. Arsenate of lead is a newer remedy of great value, from the fact that it does not injure foliage so much, and remains on the leaves for a longer time. Three pounds of arsenate of lead may be used in 50 gallons of water without injury.

RESUME.

The brown-tail moth, which has been the cause of enormous loss in Europe and the United States, is, undoubtedly, established in one locality in Nova Scotia, and probably in several others. It is important to find out as soon as possible the range of infestation, and everybody is urged to send in as soon as possible any suspicious nests of insects, or clusters of leaves webbed together, particularly if they contain caterpillars, if they notice any on their trees.

The collection of the winter nests is the best and easiest means of controlling this insect.

The collection of these nests must be done carefully, with as little handling as possible, and all should be burnt at once when cut from the trees.

This work must be done before the buds burst. Any trees bearing nests of the brown-tail moth after the buds have opened, must be sprayed with some poisonous mixture for the destruction of the caterpillars.

The establishment of the brown-tail moth in Canada is a serious matter, affecting everybody in the district where the insects occur.

What is now only a matter of considerable interest, may, if neglected, become a public calamity.

Specimens for examination may be sent to "The Farmer's Advocate," or to the Entomologist, Central Experimental Farm, Ottawa. If sent to the latter no postage will be required.

ANNAPOLIS COUNTY, NOVA SCOTIA.

We have had a long winter. From the 25th of November to the 15th of April it has been possible to haul logs on snow anywhere in the forest. Every farmer is waiting for spring. Although a long, cold winter, there has been little depth of snow, probably not more than 20 inches at any time, and still we have had at least the usual amount of sleighing and sledging, consequently the frost has entered the ground to more than the usual depth. From present appearances we will have frost in the ground in May.

I wonder if any of your readers has noticed or will agree with what an old farmer told me not long ago? He said he had always noticed that after a winter in which there was little snow, that the ground dried more quickly after rains and suffered more from dry weather the following summer than if the winter had been one of heavy snowfall. I suppose if the fact were reduced to theory it might be explained that the soil is less thoroughly saturated by the melting snows of the winter in which there is a scarcity of snow, and therefore the rains of summer are more quickly absorbed. It was quite noticeable last summer that the ground became dry very quickly after each rain, and we certainly had very little snow in 1906. If this be the case, we shall need to get the cultivators at work soon after each rain the coming summer, for we shall need all the moisture we can get and keep. The precaution will hold good in any case, for the cultivator is never liable to be used too often. In our observations in this county, nine farmers use it once or twice during the summer—when it becomes absolutely necessary to keep down weeds—to one who uses it often to retain moisture. However, the right use and appreciation of the tool is gradually spreading, and wherever we see it used properly and often, we see better crops. As deforestation continues, we will be forced to adopt better methods of cultivation, and perhaps there is no more important subject for our Institute workers to keep before the farmers than this one of thorough and frequent cultivation.

The fruit trees have come through the winter seemingly in good shape. There seems to be an opinion prevalent among some of the old-time farmers that a certain sleet storm in March, which covered the trees with ice for three days, had the effect of destroying the eggs, etc., of insect pests. The greatest evil resulting from this belief will be that these farmers will take this as an excuse for not spraying.

Apples are pretty well sold out. Nonpareils have sold for \$3.00.

R. J. MESSENGER.

THE FARM BULLETIN

RETAILERS AND THE SEED CONTROL ACT.

In the eastern part of Ontario the competition is keen among the seedsmen, or, perhaps better, their agents. The result is one has an opportunity of making some comparisons. Occasionally we find a local dealer handling the seeds of three or more firms. At one point a farmer was told that the seed he was looking at was Government standard when he asked if it were free from weeds; to which he replied, I find that there is nothing in that Government standard term. I will take a sample and send it to the Seed Branch, and if it turns out all right I will take so much of that seed.

A number of the seed retailers, when weed seeds are pointed out in their samples, say that they are disappointed, and another year the wholesaler who gets his order must give a written guarantee that the seeds he buys will grade No. 1 under the Act, for what he wishes to sell as No. 1, and that the other must be good enough to sell. A few of the large firms seem to be grading some of their brands very close to the maximum number of weed seeds allowed to be sold, viz., 5 to 1,000. This is rather a foolish and dangerous policy.

Some of the English and Chili seeds which have been imported are very large, and make a fine looking sample, but too frequently they are being offered in the trade with too many weed seeds, such as ribgrass, curled dock, fool's parsley, catchfly and dodder, besides a seed which resembles wild mustard very much, except in color and flavor. Most of the farmers have secured their supplies of seeds by this time, but very often they run short and need some to finish out a piece. That is the time to look out for low-grade seeds. The best seeds are usually bought up first by enterprising farmers, while tenant farmers are too frequently satisfied with the cheaper grades, much to the disadvantage of the land owners, who, if they wish to keep their farms clean of noxious weed life, should furnish the small seeds to sow themselves.

On the whole, it may be stated that the seed merchants are conforming to the law pretty well, and the average of the seed for purity is growing better from year to year.

T. G. RAYNOR.

J. A. Ruddick, Dairy and Cold-storage Commissioner, Department of Agriculture, Ottawa, has been appointed Canadian delegate to the third International Congress of the International Dairy Federation, which meets this year in September at the Hague, Holland. He will also attend a health convention in Brussels, at which the relation of dairy supplies to health will be discussed.

Agricultural Legislation of 1906-'07 at Ottawa.

While practically all of the legislation that has been put through by the Dominion Government during the session that has been in progress during the past five months has more or less interest to the agriculturist, in common with other classes of the community, three of the measures that have been enacted have a direct bearing upon agriculture. These are the "Cold-storage" Act, the "Meat and Canned Foods" Act, and the "Customs Tariff Revision of 1907."

THE COLD-STORAGE ACT is in accordance with the policy of the Minister of Agriculture, formulated some years ago, for the purpose of aiding the export trade in perishable food products. Commencing with the assistance to steamship companies towards the installation of cold chambers for the carrying of fruit, dairy products, etc., the work was extended to the provision of an iced-car service during the heated months for butter, then for cheese; the construction and operation of illustration cooling rooms, and the bonusing of cheese and butter factories for the construction of refrigerators according to plans recommended by the Department. This still left the weak link of a lack of cold-storage facilities for the cooling and holding of such products as fruits, dressed poultry, etc., until these could be forwarded to the market by cool cars and steamships.

This bill provides for the granting of subsidies to persons who may enter into contracts with the Governor-in-Council for the construction, equipment and maintenance in good and efficient working order, of public cold-storage warehouses equipped with mechanical refrigeration, in Canada, and suitable for the preservation of all food products.

Upon the approval of the Governor-in-Council of the details of plans, specifications, location and amount to be expended upon every such warehouse, the Minister of Agriculture grants towards the construction and equipment of such warehouse a subsidy of thirty per cent. of the cost thereof in five installments, as follows: 15 per cent. upon the completion of the cold storage and its satisfactory operation; 7 per cent. at the end of the first year following; 4 per cent. at the end of the second year; and 2 per cent. at the end of each of the two next succeeding years; provided the warehouse is maintained and operated to the satisfaction of the Minister of Agriculture.

THE MEAT AND CANNED-FOOD ACT is a measure that should very materially assist the export trade in meats, vegetables, fruits and fish. Its purpose is to safeguard the trade in these products from charges of unwholesomeness, and in this way establish the same measure of confidence for these foods as already exists in Canadian cheese and butter. A meat inspection measure has been recommended by the Veterinary Director-General for two or three years, but not until the effect of the revelations of conditions at Chicago packing-houses became apparent did such legislation appear necessary in Canada. The publicity given the findings of the inspection commission appointed from Washington, gave all canned goods and products of meat-packing plants a name so bad in the minds of consumers wherever American foods reached, that the sale for them fell off greatly in all the leading markets of the world. To insure confidence in Canadian dressed, cured and canned meats, etc., the new measure was enacted.

To the great satisfaction of the Government, an inspection of all the meat-packing plants in Canada, preparing food for either export or interprovincial trade, by an official of the Department of Agriculture, revealed a generally satisfactory condition. The plants themselves, and the manner in which they were found to be operated, were calculated to turn out wholesome food in attractive form. It was to insure a continuation of this condition, and to have the products of Canadian factories marketed bearing the seal of Governmental inspection that the meats and canned-food act was introduced and made law by the Parliament of Canada.

There are two main divisions to the bill. The provisions in regard to meats, including dressed carcasses, cured bacon, hams, dressed poultry, sausages, and all canned or bottled meat products are a little more drastic than the provisions which apply to fruits, vegetables and fish. In plants where the former are prepared, one or two duly qualified Government inspectors are to be constantly employed, to inspect the animals alive and again after slaughter, and the parts thereof in the course of curing or canning. That found healthy and fit for food shall be duly marked by the inspector, which mark it is intended shall constitute a guarantee that the product is above suspicion. Provision is made for re-inspection before shipment, if considered necessary, with a view to determining whether the product has undergone deterioration since the first inspection.

Carcasses or portions thereof considered unhealthful or unfit for food, or which contain such ingredients or preservatives as may render them unfit for food, shall be marked by the inspector in such a manner as to indicate their condition, when it shall be disposed of as regulations provide.

In the case of fruits, vegetables and fish, the bill provides for sufficiently frequent and thorough inspection of packing plants to ascertain whether these are kept in a sanitary state, and whether the products prepared and packed for export are sound, wholesome and fit for food. Factories conducted in accordance with

regulations shall be granted permission to use such marks as will indicate that their products are sound and good. A plant that is not so conducted may be closed and its packed goods confiscated. All unsound or unwholesome products discovered in packing plants by inspectors shall be confiscated or destroyed.

Penalties ranging up to five hundred dollars are provided for false marking, tampering with marks, obstructing inspectors, and other violations of the Act. The Governor-in-Council may suspend the operations of any sections of the Act until the beginning of the year 1908.

The industry to be safeguarded by this Act is now worth about twenty millions of dollars annually for export alone, while the interprovincial trade in these products is enormous. It is calculated that some \$60,000 will be required to carry out this inspection the first year. This will include the salaries and expenses of from 35 to 40 inspectors, in addition to the bonus of \$100 granted to each candidate who chose to prepare himself for inspection work by taking a special course in meat inspection at Chicago. At the present time there are in Canada from 15 to 20 meat-packing plants that will require constant inspection, and from 60 to 70 canneries that will need occasional supervisory inspection.

THE TARIFF CHANGES.

The Customs Tariff Act of 1907 differs from tariff measures previously enacted by the Parliament of Canada. Heretofore one specified general tariff was provided for, while the Act of 1907 makes provision for three separate specific tariffs, viz.: British Preferential, Intermediate and General.

The British Preferential Tariff applies to goods produced or manufactured in the following British countries when imported direct to a Canadian port: The United Kingdom, Bermuda, British West Indies, British Guiana, British India, Ceylon, Straits Settlements, New Zealand, Cape of Good Hope, Natal, Orange River Colony, Transvaal, and Southern Rhodesia. Any other British Colony may be admitted to this preference by an order-in-council, and the preference may be withdrawn by the same procedure from and after, in either case, the publication of the order-in-council in the Canadian Gazette.

In the old tariff of 1897, which remained in operation until the present one came into force in November, 1906, the British Preference amounted to a reduction of 25 per cent. of the general tariff on all British goods, with the exception of certain spirituous liquors, medicines, tobaccos, etc. This preference, by the Act of 1907, is set at a fixed amount or percentage for each article specified.

The Intermediate Tariff shall apply to goods the produce or manufacture of any British or foreign country, to which the benefits of it shall have been extended to that country by the Governor-in-Council, in consideration of favors granted the products of Canada. By this process articles shall be transferred from the general to the intermediate classification. This transfer shall have effect simultaneously with the publication of the order-in-council in the Canadian Gazette. Provision is made for the withdrawal of this benefit at the discretion of the Governor-in-Council.

This intermediate tariff has not yet been put into operation with any country. It is purely a provision for a reciprocal arrangement that may be entered into between the Governor-in-Council and a country seeking better terms than the general tariff affords.

In order to guard against the effects of undervaluation of imports, provision is made in the Tariff Act for levying a special duty ("Dumping Duty") on such articles equal to the difference between the said selling price for the article for export and a fair market value for home consumption. This special duty is limited to fifteen per cent., ad valorem. Exempted goods under this provision include sugar refined in the United Kingdom, and binder twine made from certain grasses or fibres and measuring not exceeding 600 feet to the pound.

Again, a surtax is provided to apply to the goods of any foreign country which treats imports from Canada less favorably than these from other countries. The amount of the surtax when imposed shall be one-third of the duty specified in the general tariff. This is a continuation of the amendment to the customs tariff, assented to in October, 1903.

Articles for which changes in the general customs tariff have been effected by the Tariff Act of 1907:

Article.	1904-1905		1907	
	General Tariff.	General Tariff.	Inter-mediate Tariff.	British Preferential Tariff.
Live Stock and Live-stock Products—				
Cattle (unregistered).....	20%	25%	22½%	15%
Horses (unregistered).....	20%			
Horses (unregistered) over 1 yr. old, valued at \$50 or less per head each.....		\$12.50	\$12.50	\$10.00
Sheep (unregistered).....	20%	25%	22½%	15%
Canned meats, poultry and game.....	25%	27½%	25%	17½%
Extracts of meats and fluid beef not medicated, and soups.....	25%	27½%	25%	17½%
Meats, fresh, n.o.p.....	35%	30%	25%	20%

Field and Orchard Products—

Barley.....	30%	15c.	12½c.	10c.
Beans, per bush.....	15c.	25c.	22½c.	15c.
Buckwheat, per bush.....	10c.	15c.	12½c.	10c.
Peas, n.e.s., per bush.....	10c.	15c.	12½c.	10c.
Bran, millfeed.....	20%			
Oatmeal, lbs.....	20%	60c.	50c.	40c.
per 100 lbs.				
Hops, per lb.....	7c.	6c.	6c.	4c.
Bulbous roots, n.o.p.....	20%	25%	22½%	15%
Plums, bush.....	25%	30c.	20c.	20c.
Quinces.....	25%	50c.	45c.	35c.
Potatoes, n.o.p.....	15c.	20c.	17½c.	12½c.
Melons.....	25%	3c.	2½c.	2c.
each.				
Tomatoes, bush.....	20c.	30%	27½%	20%
10%				

Agricultural Implements, Appliances, etc.—

Harvesters, self-binding.....	20%	17½%	17½%	12½%
Lawn mowers.....	35%	32½%	30%	20%
Mowing machines.....	20%	17½%	17½%	12½%
Rakes, hay, n.e.s.....	25%	22½%	20%	15%
Reapers.....	20%	17½%	17½%	12½%
Spades and shovels, spade and shovel blanks, and iron or steel cut to shape for same.....	35%	32½%	30%	20%
Windmills.....	25%	20%	17½%	12½%
Horse-powers, portable engines, threshers, separators, and finished parts thereof for repairs.....	25%	20%	17½%	15%
Stoves of all kinds, and parts thereof.....	25%	10%	7½%	5%

Following is a complete statistical classification of imports relating to agriculture, together with the rates of duty under the three tariffs, as provided in the Customs Tariff Act now in force:

	British Tariff.	Preferential Tariff.	Intermediate Tariff.	General Tariff.
Animals, Agricultural Products and Provisions—				
Horses, cattle, sheep, goats, asses, swine, dogs and domestic fowls for the improvement of stock, under regulations prescribed by the Governor-in-Council.....	Free	Free	Free	Free
Bees.....	Free	Free	Free	Free
Horses over one year old, valued at \$50 or less per head each.....	\$10	\$12.50	\$12.50	\$12.50
Animals living, n.o.p.....	15%	22½%	25%	25%
Meats, fresh, n.o.p.....	2c.	2½c.	3c.	3c.
Canned meats, canned poultry and game; extracts of meats and fluid beef not medicated, and soups of all kinds.....	17½%	25%	27½%	25%
Poultry and game, n.o.p.....	12½%	17½%	20%	20%
Meats, n.o.p., per lb.....	1½c.	1½c.	2c.	2c.
Provided that the weight of a barrel of pork for duty purposes shall not be less than two hundred pounds.				
Lard, lard compound and similar substances, cottolene and animal stearine of all kinds, n.o.p.; per pound.....	1½c.	1½c.	2c.	2c.
Eggs, per dozen.....	2c.	2½c.	3c.	3c.
Cheese, per pound.....	2c.	3c.	3c.	3c.
Butter, per pound.....	3c.	4c.	4c.	4c.
Hops, per pound.....	4c.	6c.	7c.	7c.
Beans, n.o.p., per bushel.....	15c.	22½c.	25c.	25c.
Peas, n.o.p., per bushel.....	10c.	12½c.	15c.	15c.
Buckwheat, per bushel.....	10c.	12½c.	15c.	15c.
Buckwheat meal or flour, per 100 lbs.....	35c.	45c.	50c.	50c.
Barley, n.o.p., per bushel.....	10c.	12½c.	15c.	15c.
Corn meal, per barrel.....	20c.	22½c.	25c.	25c.
Indian corn for purposes of distillation, subject to regulations to be approved by the Governor-in-Council, per bush.....	7½c.	7½c.	7½c.	7½c.
Indian corn, not for purposes of distillation, and under regulations prescribed by the Minister of Customs.....	Free	Free	Free	Free
Oats, per bushel.....	7c.	9c.	10c.	10c.
Oatmeal and rolled oats, per 100 lbs.....	40c.	50c.	60c.	60c.
Rye, per bushel.....	7c.	9c.	10c.	10c.
Rye flour, per barrel.....	33c.	45c.	50c.	50c.
Wheat, per bushel.....	8c.	10c.	12c.	12c.
Wheat flour, per barrel.....	40c.	50c.	60c.	60c.
Hay and straw, per ton.....	\$1.65	\$1.75	\$2.00	\$2.00
Flaxseed, per bushel.....	7½c.	10c.	10c.	10c.
Seeds of timothy and clover.....	5%	10%	10%	10%
Field and garden seeds, not specified as free, valued at not less than \$5 per lb., in packages weighing not less than 1 ounce each.....				
Garden, field and other seeds for agr. or other purposes, n.o.p.; sunflower, canary, hemp and millet seed, when in packages weighing over 1 lb., each.....	5%	10%	10%	10%

Garden, field and other seeds for agr. or other purposes, n. o. p.; sunflower, canary, hemp and millet seed, when in packages weighing 1 lb. each or less 15% 22½% 25%

Seeds, viz., annatto, beet, carrot, turnip, mangold, mustard, sowing rape seed and mushroom spawn Free Free Free

Seed peas and seed beans, from the United Kingdom Free Free Free

Trees, n.o.p., and teazels Free Free Free

Trees, viz., apple, cherry, peach, pear, plum and quince, of all kinds, and small peach trees known as June buds, each.... 2c. 2½c. 3c.

Grape vines; gooseberry, raspberry, currant and rose bushes; fruit plants, n. o. p.; trees, plants and shrubs, commonly known as nursery stock, n. o. p. 12½% 17½% 20%

Potatoes, n.o.p., per bushel..... 12½c. 17½c. 20c.

Tomatoes, fresh 20% 27½% 30%

Tomatoes and other vegetables, including corn and baked beans in cans or other air-tight packages, n.o.p.; the weight of the cans or other packages to be included in the weight for duty, per pound 1c. 1½c. 1¾c.

Vegetables, n.o.p. 15% 27½% 30%

Fruits, viz., bananas, plantains, pineapples, pomegranates, guaves, mangoes, wild blueberries, wild strawberries and wild raspberries Free Free Free

Apples, per barrel 25c. 35c. 40c.

Apples, dried, desiccated or evaporated, and other dried, desiccated or evaporated fruits, n.o.p. 17½% 22½% 25%

Blackberries, gooseberries, raspberries, strawberries, cherries and currants, n.o.p.; the weight of the package to be included in the weight for duty; per pound 1½c. 1¾c. 2c.

Cranberries and fruits, n.o.p. 17½% 22½% 25%

Pears, quinces, apricots and nectarines, n.o.p., per 100 lbs. 35c. 45c. 50c.

Plums, per bushel 20c. 20c. 30c.

Melons, each 2c. 2½c. 3c.

Grapes, per pound 1½c. 1¾c. 2c.

Peaches, n.o.p.; the weight of the package to be included in the weight for duty, per 100 lbs. 67c. 90c. \$1.00

Honey, in the comb or otherwise, and imitations thereof, per pound 2c. 2c. 3c.

Raw sugar produced in Canada from Canadian beet-root—under regulations by the Minister of Customs—per 100 lbs., testing not more than 75 degrees by the polariscope..... 31½c. 31½c. 31½c.

And per 100 lbs. for each additional degree over 75 degrees 1c. 1c. 1c.

This item to expire Dec. 31, 1909, provided that raw sugar imported under this item shall not be subject to special duty.

Maple sugar and maple syrup... 15% 17½% 20%

Cider, not clarified or refined, per gallon 5c. 5c. 5c.

Cider, clarified or refined, per gallon 10c. 10c. 10c.

Building and Fencing Materials—

Building brick, paving brick, and manufactures of clay or cement, n.o.p. 12½% 20% 22½%

Drain tiles, not glazed 15% 17½% 20%

Cement, Portland and hydraulic or water lime, in barrels, bags or casks, the weight of the package to be included in the weight for duty; per 100 pounds 8c. 11c. 12½c.

Gypsum, crude (sulphate of lime) Free Free Free

Buckthorn strip fencing, woven-wire fencing and wire fencing of iron or steel, n.o.p., not to include woven wire or netting made from wire smaller than number 14 gauge, nor to include fencing of wire larger than number 9 gauge 10% 12½% 15%

Implements and Machinery, Etc.—

Mouldboards or shares, or plow plates, land sides, and other plates for agricultural implements, when cut to shape from rolled plates of steel, but not moulded, punched, polished, or otherwise manufactured Free Free Free

Wine machines, harvesters, self-binding or without binding, binding attachments, reap-

ers, and complete parts thereof, not including shafting..... 12½% 17½% 17½%

Cultivators, plows, harrows, horse-rakes, seed-drills, manure spreaders, weeders and wind-mills, and complete parts thereof, not including shafting 12½% 17½% 20%

Portable engines with boilers, in combination, horse-powers and traction engines, for farm purposes; wind stackers and threshing machine separators, including baggers, weighers, and self-feeders therefor, and finished parts thereof for repairs 15% 17½% 20%

Hay loaders, potato diggers, fodder or feed cutters, grain crushers, fanning mills, hay tedders, farm, road or field rollers, post-hole diggers, snaths, and other agricultural instruments, n.o.p. 15% 22½% 25%

Axes, scythes, sickles or reaping hooks, hay or straw knives, edging knives, hoes, rakes, n. o. p., and pronged forks 15% 20% 22½%

Shovels and spades of iron or steel, n.o.p.; shovel and spade blanks, and iron or steel cut to shape for the same; and lawn mowers 20% 30% 32½%

Stoves of all kinds, for coal, wood, oil, spirits or gas..... 5% 7½% 10%

Churns, n.o.p., brooms, whisks, washboards, pounders and rolling pins 15% 17½% 20%

Freight wagons, farm wagons, drays and sleighs, and complete parts thereof 17½% 22½% 25%

Buggies, carriages, pleasure carts and vehicles, n. o. p.; tires of rubber for vehicles of all kinds, fitted or not; cutters, children's carriages and sleds, and finished parts of all articles in this item 22½% 30% 35%

Provided that for duty purposes the minimum value of an open buggy shall be \$40, and the minimum value of a covered buggy shall be \$50.

Steel strips and flat steel wire, when imported into Canada by manufacturers of buckthorn and plain strip fencing, for use exclusively in the manufacture of such articles in their own factories, and barbed fencing wire of iron or steel. Free Free Free

Galvanized iron or steel wire, Nos. 9, 12 and 13 Free Free Free

Binder Twine and Woollen Goods—

Binder twine Free Free Free

Articles which enter into the cost of the manufacture of binder twine, when imported for such use exclusively by manufacturers who manufacture such twine only Free Free Free

Horse clothing of jute, shaped or otherwise manufactured ... 20% 27½% 30%

Wool and the hair of the camel, alpaca, goat, and other like animals, not further prepared than washed, n.o.p.; noils, being the short wool which falls from the combs in worsted factories, and worsted tops, n. o. p. Free Free Free

Wool, viz., Leicester, Cotswold, Lincoln, Southdown, combing wools, or wools, or wools known as lustre wools, and other like combing wools, such as are grown in Canada, per pound 2c. 2½c. 3c.

Yarns, woollen and worsted, n. o. p. 20% 27½% 30%

Yarns, composed wholly or in part of wool, worsted, the hair of the goat or like animal, n.o.p., costing 30c. per pound or over, when imported in the cop, cone or tube, or in the hank, by manufacturers of woollen goods, for use exclusively in their own factories 12½% 17½% 20%

Wool or worsted yarns, when genapped, dyed or finished, and imported by manufacturers of hanks, cards, tassels, buttons and fringes, for use exclusively in the manufacture of such articles in their own factories Free Free Free

Miscellaneous—

Hides and skins, raw, whether dry, salted or pickled; and raw pelts Free Free Free

Harness and saddlery, including horse boots 20% 27½% 30%

Fertilizers, unmanufactured, including phosphate rock, kainite or German potash salts, and German mineral potash; bone dust, charred bone and bone ash; fish offal, or refuse, and animal or vegetable manures Free Free Free

Fertilizers, compound or manufactured, n.o.p. 5% 7½% 10%

APPROPRIATIONS.

The fiscal year now ends on March 31st, instead of June 30th, as formerly. The following are estimates for agriculture, for the year ending March 31st, 1908:

	17 months. 1907-08.
Experimental Farms	\$140,000
Additional Branch Farms	40,000
Publication of Bulletins and Reports.....	8,000
Fumigation Stations	4,500
Exhibitions	250,000
Dairying, Fruit and Trade Extension	115,000
Cold Storage	150,000
Seeds	50,000
Live Stock	45,000
Health of Animals	350,000
Food Inspection	75,000

It will be seen that an extension of service is being provided for in most of the departments. It is expected that branch experimental farms will be put into operation in Central and Southern Alberta during the present season. An additional vote of thirty thousand dollars, not shown in the above table, is for a new horticultural building and cattle stable at the Central Farm.

The work of the Dairy Commissioner is being extended in the direction of supervising and assisting the export butter trade. For this work Mr. Geo. H. Barr, formerly Chief Dairy Inspector in Western Ontario, has been appointed to a place on the staff of this branch of the Department of Agriculture.

The enforcing of the Seeds Act in the various Provinces, and the establishing of a seeds laboratory at Calgary for the Western Provinces, call for an increased expenditure of money in the branch of the Seed Commissioner.

The Cold-storage Bill, already described, explains the disposition of \$100,000 of the grant for cold-storage purposes.

The Health of Animals Branch, which is now associated with the Live-stock Branch, will administer the inspection of meats and canned foods, as provided in the bill already described. During the session a grant of \$5,000 was voted to Dr. Grenfel, the Labrador missionary, towards the importation of reindeer from Northern Europe to the Canadian Labrador, to provide flesh, milk and clothing for the inhabitants of that barren country.

COMING EVENTS.

- May 1-4—Canadian National Horse Show, St. Lawrence Arena, Toronto.
- May 8-11—Montreal Horse Show.
- May 8-9—Glasgow Jubilee Show; horses, cattle, sheep, etc.
- June 5-10—Bath and West of England, Newport, Mon.
- June 6-8—Galt Horse Show.
- June 7-13—International Horse Show, Olympia, London, England.
- June 13-15—Winnipeg Horse Show.
- June 25-29—Royal Agricultural Society's Show at Lincoln.
- July 9-12—Highland and Agricultural Society's Show at Edinburgh.
- July 13-20—Winnipeg Industrial Exhibition.

IN THE TRAIL OF THE SPLIT-LOG DRAG.

In a letter to "The Farmer's Advocate" office, Mr. T. G. Raynor, of the Seed Branch, Ottawa, observes that while driving from Alexandria to Lancaster, in Glengarry Co., Ont., he noticed a split-log drag in operation on some of the heavy clay roads in that section, and it was doing good work, although the ground was almost too dry, in his judgment, before the dragging was begun. "But," he says, "it was levelling and filling in the ruts in good shape. The split-log drag is bound to prove popular."

By special invitation, President G. C. Creelman, O. A. C., Guelph, attended the commencement exercises of the Agricultural College, University of Nebraska, on April 26th. His trip included a visit to the Iowa State College at Ames, where four Canadian graduates of the Ontario Agricultural College are included in the staff.

H. G. Bell, B.S.A., a 1905 graduate of the Ontario Agricultural College, who has since been connected with the Experimental Department of the College, has accepted the position of Assistant Agronomist in the Iowa State College at Ames.

THE 1907 SESSION'S WORK OF THE ONTARIO LEGISLATURE.

AGRICULTURAL SOCIETIES.—The new Agricultural Societies Act, passed in 1906, comes into operation for the first time this year. A short amendment act was passed at the recent session, providing for the incorporation of a few societies whose affairs were in a somewhat uncertain condition, and changed two societies, those of Forest and Chesley, from horticultural societies into agricultural societies. It appears that for some years these two societies have been carrying on agricultural work, and as the two classes are now controlled by separate acts, it was necessary to transfer them from the one class to the other. The old question of horse-racing at fairs has been a subject of much discussion. The Provincial Fairs Association twice asked the Minister to take the ban off horse-racing and leave it to local option. The Government has not seen fit to do so. Then the representatives asked the Government to protect the directors from prosecution by takers and confidence men, who threatened revenge through being excluded from the grounds. The Minister decided that as the enforcement of this part of the act has always been a local enforcement measure, he would protect the directors thus far, in that prosecutions must be inaugurated by members of two years' standing. The fact is that agricultural exhibitions are run by the directors and not by the members. The result is that directors cannot ignore the wish of the members in this regard. For the first time a vote of \$5,000 appears, to be divided among the Toronto, London and Ottawa exhibitions, which do not share in the \$70,000 grant for agricultural societies.

LIVE STOCK.—The report of the commissioners appointed to enquire into the horse industry was presented to the Legislature, and is now being printed. The Minister did not introduce any legislation based upon it. Opportunity will be given for a full consideration of the evidence, and meetings will probably be held to discuss the subject. There appears to be a wide diversity of views as to what should be done. The Minister proposes to move cautiously, and allow all sides to be heard. The grant for the spring stallion show was increased from \$1,000 to \$2,000, and \$4,000 is allowed to continue the horse investigation and make grants to local horse shows. The Premier announced that the question of enlarging the Winter Fair buildings at Guelph will be considered and decided before the next session. Provision was made for special swine sales in Eastern Ontario, with a view to increasing the supply of bacon hogs. There is a vote of \$2,000 to pay the transportation of Ontario horses to the London, England, horse show.

INSTITUTES.—The only noticeable change here is an increase in the contingencies vote, which is intended, we understand, to provide for the salary of an assistant to the Superintendent.

DAIRY BRANCH.—The grant for instruction and inspection has been increased from \$32,500 to \$35,000. This, however, does not really represent the increase. Hitherto, the factories benefited have been charged a fee of \$15. This is abolished. All the instructors will be inspectors as well, and every factory in the Province will be visited. The aim is to enforce the act, so that all factories will be required to provide sanitary conditions. A large deputation pressed upon the Minister to assist by a substantial vote the holding of a Provincial Dairy Show. This was not acceded to. The Minister, apparently, is of the opinion that the strengthening of the Winter Fair at Guelph calls for more immediate attention.

FRUIT.—The new experimental fruit farm in Lincoln County has demanded a good-sized vote; \$15,000 is available for new buildings, equipment and expenses. We understand that no pains are being spared in searching for a live expert, who will take charge of the important work. It would be easy to find a man who could grow fruit, but what is wanted is a man who can produce new varieties of fruit. Ten thousand dollars was voted for spraying, San Jose scale and assisting co-operative associations. The Department and the Ontario Fruit-growers' Association are encouraging these very promising organizations. Five thousand dollars has been set aside to be voted to these associations, based on the work done by power sprayers. An amendment was made to the Scale Act. The section providing for the appointment of township inspectors was enlarged as follows:

"Upon the report of the inspector to the council that there is scale upon the trees or shrubs on any lot within the municipality, the council may direct that notice be given personally by the inspector, or by being sent by registered letter to the owner or occupant of the lot, to have the trees or shrubs forthwith sprayed, and in case the same are not sprayed within ten days, the inspector may cause the spraying to be done, and the cost of same shall be charged on the lot and be collected as a special tax, in addition to the other taxes imposed by the municipal council on the lot."

This provides for a full and complete enforcement of the Scale Act by the local authorities. It is understood that more municipalities are every year appointing inspectors. This is the most promising line of work whereby the scale may be kept in check.

HONEY.—Last year the Foul Brood Act was amended, permitting the Minister to appoint as many inspectors as he thought necessary to enforce the act. The grant has been increased to \$1,200. The Minister has explained that he intends to appoint six inspectors to cover the Province, so as to expedite the work. The

beekeepers are now for the first time in direct touch with the Department's work.

PIONEER FARM.—It is proposed to start a new experimental farm in the clay belt of Northern Ontario. Three thousand dollars was provided for clearing and beginning the work.

ONTARIO AGRICULTURAL COLLEGE.—Provision is made for the continuing of the work already in hand, and also for extension. There will be increased work in plant-breeding and in testing wheats and flours. Several votes were required to complete the work begun in 1906 in the Mechanics' Building, Chemical Laboratories and greenhouses. In addition, there will be a new mammoth coal house, a storehouse for vegetables, new roof for main building, and an addition to accommodate 40 additional students. The total vote in capital account amounts to \$77,225.

TOTAL EXPENDITURE.—Apart from capital account, the total appropriation for agriculture was \$505,453, as against \$460,557 in 1906.

IMMIGRATION.—The Governor's message announced that special efforts would be made during the year to assist farmers to procure help. The appropriation this year is \$55,665, an increase of \$17,000 over 1906.

AGRICULTURAL TEACHING.—A beginning is to be made in introducing agricultural courses in half a dozen high schools; \$6,000 was provided for the purpose. The intention, as announced, is to select six high schools. Teachers are to be provided by the Agricultural College. The courses have been arranged. The Government will grant \$1,000 to each school. Class work will be given, and experimental plots will be established. The teaching will be adapted to the agricultural conditions of the section in which the school is located.

COMPANIES ACT.—Hitherto, various special acts provided for the organization of cheese and butter manufacturing companies and co-operative fruit companies. All these have now been provided for in the new Companies Act. The companies already organized will be continued, but hereafter all companies must be incorporated under the new act of the Provincial Secretary's Department. The methods of incorporation will be simple and the fees low. The aim is to have them all registered in one place, have all report to the one office, and thus keep them somewhat uniform. It has been felt that the modes of organization were somewhat crude and uncertain, and that the farmers' organizations should receive as much consideration and protection as the more ambitious organizations of larger capitalization.

VETERINARY SURGEONS.—According to statute no one is allowed to use the title "veterinary surgeon" unless he holds the diploma of the Ontario Veterinary College, or the certificate of the Ontario Veterinary Association, which practically amounts to the same thing. Occasionally a petition is presented to the Legislature to permit someone to use this title who has not taken the course at the Ontario Veterinary College, the ground being that of experience. At the recent session two bills were presented and passed, authorizing Jerry Brisson and Thomas Johnston to practice as veterinary surgeons. Announcement was made during the past year that the Government propose to take over the Ontario Veterinary College and conduct it along lines similar to those of the Ontario Agricultural College. Nothing was presented to the Legislature, as the announcement was made that Dr. Andrew Smith will complete the education of the present classes, but students entering in October, 1907, will be required to take a three years' course, and the Government will take over the work in 1908. Terms are now being arranged between the Government and Dr. Smith, and it is expected that the new Principal will be selected during the coming summer.

PUBLIC SCHOOLS.—One of the most noticeable increases in grants occurs under the heading of Public and Separate School education. In 1906 the grant was \$629,178; this year it is \$896,667. The Act amending the Public Schools Act sets forth a new basis for the payment of salaries of teachers in rural public schools. In every school section whose average equalized assessment for the three preceding years has been at least \$30,000, the head teachers must be paid at least \$300 per year, and every assistant at least \$200 per year. In every school section of an organized county having an assessment of less than \$30,000, and in every school section in a territorial or judicial district, the head teacher must be paid at least \$150, and every assistant at least \$100 per year. The townships are required to raise the amounts to pay these salaries. The counties raise in addition an amount equal to the grants paid by the Government. It will be seen that the regular grants to public-school work are this year very largely increased. The regulations of the Department which are authorized by the School Act provide that the Government pay 40 per cent. of any salaries in excess of the minimum salaries above stated (\$300 and \$150) up to \$600; also, an unconditional grant of \$15 for each section, and a grant for equipment and accommodation. The Premier announced that the grants to rural public schools have been as follows: 1904, \$118,000; 1906, \$178,000; 1907, \$380,000.

There are other increases; for instance, the grants for continuation classes have been increased from \$32,000 to \$40,000. There is a grant of \$5,000 for the use of flags for rural public schools.

ROAD GRANTS. The Minister of Public Works introduced and got through the House an Act, appropriating \$1,000,000 for road improvement. County councils may pass a by-law adopting a system of improvement, assuming any township roads necessary

to complete their general plan. Toll roads may be purchased and included. Villages and towns (not separated) may be assisted in improving roads that form part of the plan. The plans are to be approved by the Government, and the by-law also by the rate-payers. Then the Government is prepared to pay one-third of the cost of the improvements.

SUGAR BEETS.—The bounty of \$75,000 a year has been paid to the beet-sugar manufacturers for the past five years. The first act (1902) provided for three years, then an extension took place for two years more. Urgent appeals have been made to continue this bounty. It was laid before the Minister, and after full consideration the decision apparently reached not to continue it, as nothing appears in regard to it, either in legislation or estimates.

CATTLE POISONING.—Hitherto, Provincial coroners have had the power to hold inquests to investigate the causes of fires, but it was found difficult to gather evidence as to the poisoning or injuring of live stock. An amendment has been passed, whereby the same officers "shall have the power to investigate cases of maiming or suspected poisoning of horses, cattle, and other domestic animals." The proper course now to pursue is for the owner thus injured to apply at once direct to the Attorney-General.

TOTAL VOTES.—For the first time the appropriations have crossed the seven million dollar mark—to be exact, the appropriations for all purposes this year amount to \$7,044,382.28. The Provincial Treasurer reported cash balances on hand on the first of January, \$3,497,240, and he estimated receipts during the year amounting to \$7,612,287. It will perhaps interest the readers of this article to know where this money is to come from. Here are the principal items:

Dominion Subsidy	\$ 1,339,287
Interest on Trust Funds and Investments.....	170,000
Timber Dues, Bonus and Ground Rents.....	1,715,000
Crown Lands, Leases and Sales	267,000
Royalty and Crown Mines	200,000
Mining Licenses	100,000
Cobalt and Kerr Lakes	1,155,000
Taxes on Corporations	640,000
Liquor Licenses	550,000
Succession Duties	700,000
Provincial Secretary's Dept. (charters, etc.)..	175,000
Public Institutions	135,000
Central Prison Industries	60,000
Agricultural Department	74,000
Education	45,000
Other Revenue	287,000
	\$7,612,287

DALGETY BROS.' CLYDESDALE SALE.

The 18 imported Clydesdale fillies, advertised by Dalgety Bros. to be sold by auction at London, Ont., on April 24th, was attended by a medium-size but good-bidding crowd. The fillies were a real good lot, such as this firm handles, and although a number of them were quite thin, and nearly all looking gaunt from their long and tedious journey, they were readily taken at fair prices; the highest price, \$600, being paid by Prof. Day, of the Ontario Agricultural College farm, for the grand and typical bay four-year-old, Sunflower, by Martinet (10594). Following is the sale list:

Sunflower, foaled 1903; Ont. Agri. College, Guelph.....	\$600
Blackhall Maid, 1904; D. McFrac, Glencoe.....	405
Peggie H., '03; A. B. McDonald, Appin.....	330
Flowerdale, '04; John Stewart, Springbank.....	325
Miss Ramsay, '04; John McLean, Aldboro.....	275
Corskie Bridesmaid, '03; Wm. Boyle, Lucknow.....	305
Miss Ironside, '04; Col. Gartshore, London.....	310
Lady Perth, '04; John Stewart.....	340
Lady Rose, '05; C. B. Fitzgerald, Rebecca.....	230
Lady Overton, '04; Wm. Boyle.....	315
Lily of Hilton, 1897; Wm. Boyle.....	305
Lot 12, '03; Walter Nixon, Arva.....	375
Lot 18, '04; Chas. Cundick, Watford.....	305
Lot 14, '01; P. A. McDevitt, Alvinston.....	440
Happrew Fancy, '04; John Stewart.....	290
Minnie, '03; Jas. Cobban, Middlemiss.....	275
Roving Lass, '04; Hy. Seargeant, Bellwood.....	300
Miss Maggie; Walter H. Brownlee, Aughtim.....	300
18 fillies sold; average, \$334.	

Prof. Andrew M. Soule, a Canadian, who has distinguished himself in public service in the United States, has resigned his position as Dean and Director of the Virginia College of Agriculture, to become head of the new agricultural college at Athens, Georgia, at a salary of \$5,000 per annum. He will also have charge of the State Institute system, and advise in the management of the new State agricultural high schools.

The Government at Ottawa have appropriated \$15,000 to connect the Central Experimental Farm by electric railway with the city. It is proposed to extend the Ottawa street railway tracks along Wellington to Preston, and then down that street to the Farm. The move is a good one. Heretofore when a visitor to the National Capital inquired of a citizen or policeman the way out to the Experimental Farm, he was indignantly told that he might go either of two ways. He might go to the end of the car line, and then walk a mile, or if he preferred he could take a short cut through the bush.

THE HARD-EARNED MONEY OF THE FARMER

If you are farming for the money you make out of it, then you want to keep that money in a safe place.

After you have worked hard for your money, and your crops have escaped all risks, you should make the proceeds of your crop safe and solid.

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MARKETS.

TORONTO.

LIVE STOCK.

Receipts of live stock at both City and Junction markets last week were liberal, so much so as to cause prices to be easier. The quality was generally good at both markets, but not any better than they should be at this season of the year. Trade in shipping cattle was slow, owing to shortage of vessel space. Butchers' classes were a little easier owing to large supplies. On Monday, at the Junction, receipts were light, there being only 758 cattle. Exporters were dull at \$4.90 to \$5.25, bulk selling at \$5.10 to \$5.15. Butchers' firm, at quotations given below.

Exporters.—Prices ranged from \$4.90 to \$5.35, but few got the latter price, the bulk selling for the week at \$5.00 to \$5.15. Export bulls sold at \$3.75 to \$4.25 per cwt.

Feeders and Stockers.—Trade in feeders and stockers has increased, several dealers having bought large numbers. John Sheridan got about 600 of good quality for his ranch at Cobocok. But all dealers are looking for good quality, and common-bred steers are slow sale. Steers weighing from 1,000 to 1,050 lbs., \$4.35 to \$4.60; steers 1,100 to 1,200 lbs., \$4.70 to \$4.85; good steers, 800 to 900 lbs., \$3.90 to \$4.12½ per cwt. Stockers sold from \$3.50 to \$3.75.

Milch Cows.—There was a moderate trade in milkers and springers at prices ranging from \$30 to \$55 each, the bulk selling at \$40 to \$50.

Veal Calves.—Deliveries large; prices easy at \$3.00 to \$6.50 per cwt., the bulk selling from \$4 to \$5 per cwt.

Sheep and Lambs.—The North American Live Stock Co., of Port Arthur, were represented on the market by Mr. Jaffray, who bought 800 lambs and 115 yearlings of extra quality. This consignment of sheep and lambs, which were of the finest quality, sold readily at \$8 per cwt., although they had been shorn before shipment. Export sheep sold at \$5 to \$5.75 per cwt.; spring lambs sold at \$5 to \$8 each.

Hogs.—The Davies Packing Co. quote selects at \$6.40 and lights at \$6.15 per cwt., fed and watered at Toronto.

Horses.—The horse market at Toronto is in a flourishing condition, so much so that two more sales stables are promised in the near future. The Union Stock Yards Co. at Toronto Junction are negotiating for the erection of a large stable and arena, where auction sales of horses will be held two or three days weekly. David McDonald, of the firm of McDonald & Maybee, wholesale cattle dealers, is arranging to erect one of the most up-to-date auction sale stables on the continent, in conjunction with the city cattle market. Mr. McDonald contemplates putting up buildings to cost in the neighborhood of \$40,000 on Stanley Park, adjoining the city market, if permission can be obtained from the city.

Good horses in all the different classes last week were in excellent demand, but

there were few in each class that could really be classed as good, in comparison with the numbers offered. A few choice heavy-draft horses sold from \$200 to \$275 each. General purpose horses are in demand. Burns & Sheppard quote first-class drafters as selling from \$200 to \$275; general purpose and express horses at \$160 to \$225; best quality carriage horses, \$250 to \$300 each; common ordinary drivers, \$100 to \$135; first-class, well-trained drivers are worth \$200 to \$250 each, and hard to be got at these prices.

BREADSTUFFS.

Wheat—No. 2 white, 73c.; No. 2 mixed, 72c.; No. 2 red, sellers at 73c.; Manitoba No. 1 Northern, 92c. bid at North Bay. Corn—No. 3 yellow, 52c. bid, Toronto. Oats—No. 2 white, 39½c.; No. 2 mixed, 38c. bid. Rye—No. 2, 60c. bid. Barley—No. 2, 53c.; No. 3X, 51c.; No. 3, 50c. Peas—No. 2, 78c. to 80c. Buckwheat—56c. Bran—Scarce, at \$23 to \$24, sacks included, at Toronto. Flour—Manitoba patent, \$3.85, track, Toronto; Ontario, 90 per cent. patents, \$2.67; Manitoba patent, special brands, \$4.50; strong bakers', \$4.

COUNTRY PRODUCE.

Butter—An easier feeling prevailed, especially for choice dairy pound rolls, as receipts have been much larger, causing a drop of 2c. per lb. in this grade. Creamery, 29c. to 30c.; creamery boxes, 27c. to 28c.; dairy pound rolls, 24c. to 25c.; tubs, 22c. to 23c.; bakers' tub, 19c. to 20c.

Eggs—Market firm, at 17c. to 17½c. Cheese—Market steady at 14c. for large; twins, 14½c.

Honey—Supplies light; prices steady, at 12c. for strained, and \$2.60 to \$2.75 per doz. for combs.

Evaporated Apples—9c. per lb. Potatoes—J. J. Ryan, who received 5 cars last week of New Brunswick Delawares, reports car lots as worth from 95c. to \$1.00 per bag.

Poultry—Supplies were light. Yearling chickens, 15c. to 17c. per lb.; spring chickens, 30c. to 40c. per lb.; Mr. Stewart, of Stouffville, Ont., brought in 50 pairs of springers, 24 to 2½ pounds per pair, sold wholesale at \$1.25 per pair; turkeys, 15c. to 18c. per lb.; old hens, 12c. to 14c. per lb.

Hay—Baled—Market strong, at \$12 to \$13 per ton for No. 1 timothy.

Straw—Baled, \$6.50 to \$7.50, by the car, on track at Toronto.

SEEDS.

There is a good demand for seeds from farmers, at following prices for re-cleaned seed: Red clover, \$14.50 to \$16.50 per 100 lbs.; alsike, \$10.50 to \$13 per 100 lbs.; timothy, \$5 to \$7 per 100 lbs.

HIDES.

E. T. Carter & Co., 85 Front street, have been paying the following prices: Inspected hides, No. 1 steers and cows, 10½c.; No. 2 steers and cows, 9½c.; country hides, cured, 9c. to 9½c.; country hides, green, 8c. to 8½c.; calf skins, No. 1, city, 13c.; calf skins, No. 1 country, 11c. to 12c.; sheep skins, each, \$1.65 to \$1.75; horse hides, \$3.50 to 3.75; horse hair, No. 1, per lb., 30c. to 32c.; tallow, per lb., 5½c. to 6½c.

CHICAGO.

Cattle.—Common to prime steers, \$4 to \$6.85; cows, \$3.25 to \$5; heifers, \$3 to \$5.25; bulls, \$3.40 to \$4.60; stockers and feeders, \$3 to \$5.25.

Hogs.—Choice to prime heavy, \$6.55 to \$6.57½; medium to good heavy, \$6.50 to \$6.55; butchers' weights, \$6.55 to \$6.57½; good to prime, mixed, \$6.52½ to \$6.55; packing, \$6.25 to \$6.55; pigs, \$5.50 to \$6.50.

Sheep and Lambs.—Sheep, \$4.25 to \$6.25; yearlings, \$5.25 to \$7; lambs, \$6.75 to \$8.75.

BUFFALO.

Cattle.—Prime steers, \$5.75 to \$6.25. Veals—\$5 to \$7.75.

Hogs.—Heavy, \$6.75 to \$6.95; mixed, \$6.95; Yorkers, \$5.50 to \$6.95; pigs, \$6.85 to \$6.90; roughs, \$5.90 to \$6.05.

Sheep and Lambs.—Sheep steady; lambs, \$5.50 to \$7.75.

MONTREAL.

Advices from England show that the market for cattle is weak. Prices are considerably lower than a week ago and trade is reported slow.

The approaching opening of navigation is occasioning somewhat more activity, but, at the best, the quantity of space booked from the port of Montreal for the month of May is unusually small. There has been a little demand from American exporters for sailings from Portland, and quite a little space has been booked from there to Liverpool at 27s. 6d., for May. All the May space, to London, on one line of ships, has been taken. Some Glasgow space has also been let at 35s., some Liverpool at 32s. 6d., and Bristol, 25s.

Cattle—In the local market choice cattle brought 5½c. to 5½c., fine 5c. to 5½c., good 4½c. to 5c., medium 3½c. to 4½c., and common down to 3c. Really choice calves sold at \$7 to \$10 each, but there was a considerable number of poor animals at \$3 to \$5. Sheep and lambs were scarce, sheep being 5½c. to 6c. per lb., yearlings 6½c. to 7c., and spring lambs \$4 to \$6 each.

The market for hogs was steady at the recent decline. Offerings rather light, owing probably to the lower prices, but the scarcity had a steadying effect on the downward course of the market. Prices are now 7c. to 7½c. per lb., for best stock, off cars.

Horses—There is practically no change in the market for horses. Demand is fair and the opening of navigation is causing increased activity. Prices are steady at: heavy-draft, 1,500 to 1,700 lbs., \$250 to \$300 each; light-draft, 1,400 to 1,500 lbs., \$200 to \$250 each; express, \$175 to \$225; common plugs, \$75 to \$125, and choice driving and saddle animals, \$300 to \$500 each.

Dressed Hogs and Provisions—Demand for dressed hogs continues excellent. Supplies were not quite so large as during the previous few weeks, but they were sufficient for the demand. Sales of fresh, abattoir-killed stock were made at 9½c. to 10c. There is an excellent demand for smoked meats of all kinds and prices continue practically unchanged, at 13c. to 13½c. per lb. for hams of 25 lbs. and upwards, 14c. to 14½c. for 18 to 25 lbs. weights, 14½c. to 15½c. for 12 to 18 lbs., 15½c. for 8 to 12 lbs. Choicest smoked bacon is 15c. to 16c.; choice, 14c. to 15c.; inferior and green and salt bacon, 12c. and down to 10½c. Barrelled pork is \$20.50 to \$24.50 per bbl., and lard, 9½c. to 10½c.

Maple Products—There seems to have been a heavy make of syrup and sugar. Receipts of both have been larger the past few days than at any time this season, last week having been very favorable for the sap. The long spring has been responsible for the large make. Sales of syrup are being made at 5½c. to 6c. per lb., in kegs, and at 6½c. to 7c. in tins. Sugar is selling at 9c., some of the dark and inferior stock selling at 8c. Demand is fair and supplies appear to be large. The market is easier than a week ago.

Potatoes—The market for potatoes shows very little change. Supplies are fair and there is a moderate demand throughout the market. Carloads of mixed stock, mostly white, were bought at 68c. to 69c., on track, per 90 lbs., but the general range is from 62c. to 65c. for reds and 68c. to 71c. for whites, although some of the latter range up to 75c. These are being sold at about 80c. to 85c. for reds, bagged and delivered into store, in a jobbing way, and at 85c. to 95c. for whites.

Eggs—Dealers appear to be arriving at the conclusion that eggs are going to be a luxury this season. It would seem that 16c. is being paid at country points, in the west, and that purchases cannot be made in the vicinity of Montreal at a great deal under 17c.; probably 16½c. is a general figure. In the city, 17c. is quoted by some, though 17½c. is more frequently the price, this being for seconds. Dealers are taking the choice, large eggs out of the straight receipts and putting them away and selling the smaller stock. Fresh, straight receipts would not be sold at less than 18c. Demand is good.

Butter—Demand for new milk butter is good. The market has experienced a decided break since the beginning of last week, prices being now 24½c., as against about 32c. At present figures, demand

shows a considerable improvement. Dealers profess to believe that by the end of the week there will have been another break in the market and that 20c. will represent values. This seems somewhat like an attempt to force the pace, a result of which action is frequently the opposite of that desired.

Cheese—There is very little interest in the market for cheese. Cables to the other side have met with no response, and the market is now lower than it was a year ago. At the moment, it would be impossible to make sales at more than 11½c. and 11½c. for new cheese.

Flour and Feed—The situation in the market for feed is more acute than ever. Almost no bran or shorts are to be had and millers will only sell to those who purchase a certain proportion of flour. For Manitoba shorts, on spot, fully \$23 and \$24 per ton, bagged, has to be paid, while for bran, \$25 to \$26 is charged.

Grain—The market is stronger than a week ago and prices are about ½c. per bushel higher, at 43½c. to 44c. for No. 2, 42½c. to 43c. for No. 3 and 41½c. to 42c. for No. 4, store, for local account. There is practically nothing else doing in grain in the local market.

Hay and Hayseed—\$13.50 to \$14 per ton for No. 1 timothy, \$12.50 for No. 2 and \$11.50 for clover. Demand for all kinds of hayseed is very active and the market is firm all round. Dealers are selling timothy at \$5.50 to \$7.50 per 100 lbs., Montreal, red clover at \$16 to \$17.50, white clover at \$14 to \$20 and alsike at \$13 to \$16.

Hides—The market for hides is easier. Demand is quite dull and the quality of the beef hides is very poor. Dealers are paying 11c., 10c. and 9c. per pound for Nos. 1, 2 and 3, respectively, Montreal, for country take-off and ½c. more than these prices for city hides. They are selling to tanners at ½c. advance in each case. Calf skins are steady, at 13c. per lb. for No. 2 calf and 15c. for No. 1. Sheep skins are \$1 each and spring lambs 10c. Horse hides and tallow, steady.

BRITISH CATTLE MARKET.

London.—Canadian cattle are easier at 11c. to 12c. per lb.; refrigerator beef is 8½c. to 9c. per lb.

TRADE TOPIC.

A RARE GOOD THING IN EARLY POTATOES.

Those who are looking for a really good thing in early potatoes should not miss the chance offered to procure a stock of seed potatoes from Thos. Bousfield, of Carlisle, Ont., who is advertising the variety called Snider's Best Early. Mr. Bousfield is in no sense a promoter, but a plain, practical farmer, who has got hold of a very superior variety, and is letting his fellow farmers know of it through our columns. Members of "The Farmer's Advocate" staff saw an exhibit of these potatoes at Toronto Exhibition last fall, and we believe them to be all he claims. The variety has been very highly commended at both Guelph and Ottawa as an unusually productive, strong-growing, vigorous, early variety. If you have not already corresponded with Mr. Bousfield do so at once.

GOSSIP.

SALE DATES CLAIMED.

May 9th.—W. J. Thompson, Mitchell, Ont., Shorthorns. Dispersion.

May 23rd.—G. A. Gilroy and G. H. Manhard, Holsteins, at Brockville, Ont.

May 24th.—Jas. I. Davidson, Balsam, Ont., dispersion sale of Clydesdales and Shorthorns.

Mr. John Campbell, Woodville, Ont., writes: "The choice young Clydesdale stallion, three years old on May 20th, recently advertised in 'The Farmer's Advocate', has been sold to Mr. S. J. White, of Whiteside, Simcoe Co., Ont. The purchaser is to be congratulated on securing one of the very best bred Clydesdales in America; a real good individual, with a gilt-edged pedigree, is the combination secured, and this horse should prove a prepotent sire of the right class of stock."



Life, Literature and Education.

[Contributions on all subjects of popular interest are always welcome in this Department.]

DEMENTIA AMERICANA.

An observant and thoughtful Canadian, after a somewhat extended residence in the United States, tells us of two very marked changes passing over the spirit of the dreams of the Republic. So unmistakable is the strength of these tendencies that they may be ranked among the most hopeful signs of the times on this continent.

First is the waning idolatry of wealth and wealth-getting. One of the premonitory symptoms of this is the phenomenal and continued appreciation of Wagner's "Simple Life," which a few years ago struck a responsive chord in the overwrought and luxury-surfeted heart of the American people, in contrast with which that remarkable little book was the very antithesis. To-day we see millionaires vieing with each other in placing their accumulations upon the altars of humanity. Some people are worrying about their motives, but these we need not stay to analyze. There is a distinct reversion to higher ideals, and a slump in public esteem of the unscrupulous money-making machine.

Secondly, there is a most wholesome revulsion of sentiment among the thinking and self-respecting masses against the mercenary and low-toned press, with its indecencies in print and picture. They have come to discern at last, with sure intelligence, the menace that a vitiated journalism is to the youth and future of the state, by undermining the work of the home and the school.

The Government of Canada, through the new international postal convention, has taken a position designed to check the lately increasing inflow, and, fortunately, the press of Canada has kept itself singularly free from these cheap and objectionable features. No parent, no citizen, who has any regard for the future of his home, the education of his family, and the good of Canada, will permit the "yellow" stream to cross the threshold, and a prompt and courageous protest at this juncture in the country's progress will exert a most wholesome effect in curing the premonitory stages of this type of Dementia Americana.

VARIOUS FISHERMEN.

The first of May is the beginning of a new year for the fisherman, and nobody makes so many or so sincere good resolutions. On the last night of the piscatorial year, instead of wasting time waiting for the midnight bells and lying abed next morning, he retires with the hens, in order to begin his "new year" with the sun. Indeed, that punctual riser is for once given an example; the angler is afoot in the gray morning twilight, hurrying for his particular "hole"—a spot he has had in mind for weeks. Alas! standing in the one spot that commands it is his neighbor, Turner, who bids him good-morning with restrained cheerfulness. By sunrise a wavering procession of rods is moving along the creek. The fishhook appears to be the insignia of equality. One may see an aristocrat in long rubber boots and wicker creel, throwing into the same pool with the bare-legged youth who fishes

cal competition with his victim in the latter's chosen element.

I have never seen him fishing, for, like others of his craft, he is excessively shy. Once I was nearly in time—just too late to see the fisherman, whose wet footprints on a rock and a half-eaten sucker showed how recently he had gone away. The ripples had not entirely died from the surface of the water. But another June day, on the Pagwachuan River, I had better luck. The river was fine and broad, with a current that carried us rapidly down the forest-way when assisted by our paddles. A long way down stream there appeared two floating black spots. Ducks? They were not behaving like ducks; every now and then they disappeared, popping up again somewhere else. We had ceased paddling, and our Indian was silently diagnosing the situation. At last, in a whisper, "Neeg-yig!"

Ah! otters. We were now close enough to recognize them and watch

Little wonder the otter is the premier fresh-water fisherman. Long generations of application to his profession has made him a specialist in aquatics. His legs have shortened up, broadened, and grown tremendously powerful. No doubt the stout, tapering tail is for speed, too; it is almost thick enough to be considered a prolongation of the body—like an alligator's. The dainty, conical teeth might seem unserviceable until one notices how sharp they are; no fish is too slipper for those awl-like points.

The bear does a little fishing in the first of the season, but he is only a novice, and is satisfied with tame sport. He is not particularly fond of the water, and fishes rather from necessity than choice. In late April the most noticeable feature about a black bear is his appetite. At about the same time the suckers are possessed of an insane determination to go up-stream at all costs. They push up rapids, flounder across shallow

places, and, apparently satisfied with this unusual display of energy, lie up in some quiet back-water. Muquah, who knows something about this spring madness, picks out a nice place where a log has fallen across a shallow place, fixes himself comfortably, and leans over admiring his reflection. One big paw hangs idly, the claws trailing in the current. Presently a sucker comes floundering along, is scooped out, along with a pailful or so of river water, and begins a heel-and-toe dance on shore. The big fisherman scrambles up rather hastily, and eats his catch on the spot. Then operations are resumed. After a while, if his luck is good, he grows fastidious, and selects only the dainty parts. The soft throat is bitten out and the remainder left for some needier body. At the end of a good afternoon's operations, quite a pile of mutilated suckers are left as crumbs from the feast. The bear, however, is a confirmed

Jack-of-all-trades, and, as usual, not much good at anything. If fishing becomes difficult, he resorts to ripping open dry logs and licking up the ants, at the risk of some day losing his teeth. For a clumsy-fingered fellow, he is a champion berry-picker. In August, when the blueberries are ripe, he wouldn't go fishing under any circumstances.

But the spectacular exponent of the gentle art is of quite another sort. My first glimpse of him was while travelling down a shallow river expansion back of Kenogami. It was a quiet, muddy place, full of reeds—a splendid place for pikes to take a snooze of a hot afternoon. I don't know whether they actually fall asleep or not, but for hours they will



And Fisherwomen, Too.

with a maple pole and strings his catch on a willow gad.

They are a heterogeneous lot, and yet one has only to visit the woods to find a stranger tribe of anglers, employing the strangest of outfits and methods. With them, open season commences with the breaking up of the ice, but, as elsewhere, there are a few who laugh at the law. At all events, the first catch of the season is made either by the mink or the otter. So far as the fish is concerned, it doesn't much matter; his deesse is skilfully conducted by either of these craftsmen. Nor is he lured by wise pretences. An otter offers no temptation, but the questionable one of a beautiful double row of teeth. He succeeds by physi-

every movement. What liness and sinuosity of motion! They were playing in the water, diving and reappearing rapidly. Their snaky, wet bodies undulated in and out with a swiftness and ease suggestive of a serpent. At times there seemed neither head nor tail, but a writhing succession of black folds. With scarcely a pause, the two kept up this intricate serpentine water game, quite obvious, seemingly, to their surroundings. But we were floating up close now. One of the players paused and turned a square black head in our direction for a moment, then disappeared, and the game continued. Only for a moment, however, and this time they both stared uneasily into a grim pair of tubes.

lie still, and, when disturbed, dash off excitedly, as if suddenly awakened. This afternoon was a splendid one, and, no doubt, a good many siestas were in languid progress. The spruce forest kept off any breeze that may have been stirring, and the sun poured down ardently. My canoe-man had rudely disturbed one sleeper by jabbing at him with his paddle, when somewhere overhead came a high-pitched "he-he-he," like an unsuccessful attempt at mirth. It took a moment for the eye, roving across the sky, to define anything in so immense a space, but at last it seized upon a black speck sailing ever so high above the tree-tops. Like a tiny black satellite, obedient to some invisible cosmic force, it described slow, wide circles. The circles gradually carried it down the river; our eyes, following the wheeling speck, descried another smaller one farther away. Presently the two were together, swinging in great curves, their paths crossing, approaching and retreating, rising and sinking, as if at the will of creatures as buoyant as the atmosphere. I was not aware then that these airy circlings were a feature of domestic economy—the daily patrol duty. Yet, at their incredible height, the two hawks were beating up and down their fishing ground, scrutinizing the water away below for prey. No doubt from that elevation the river looked very shallow, and shadows, reeds or fishes appeared as if covered by a glass plate. Such, at least, is the impression given the human eye on looking from a height into water well illuminated by the sun.

The two were again separating, one growing faint in the distance. The other was coming our way, growing larger with every great circle. It was descending, too. The motionless wings and spread tail grew distinct. It would soon pass overhead. But at the end of a long, silent glide the great wings fluttered rapidly, as if in distress, and the body poised, stationary, for a moment. Then the wings half closed into a flattened crescent, and, like some heavy, inanimate object, came shooting downward, gaining terrific velocity. Against the dark forest background the eye lost track of its meteor-like fall, but almost instantaneously a splash of white spray rose high above the reeds. A great flapping of powerful wings succeeded, and the fish-hawk, no longer buoyant, struggled upward, holding in his claws something that glinted in the sun.

C.

Of the Geological Survey, Canada.

OUR ENGLISH LETTER.

I have been more or less on the tramp for the last few weeks, Teignmouth being a very good center from which to reach the many places of interest to be found in this lovely County of Devonshire. Wherever possible, I have tried to obtain for our Home Magazine pictures of the spots I have visited, in the hope that space may be found for them. I will begin my story by telling you of my trip to Sidmouth, which it actually took me two hours to reach, having to take cross lines and change at junctions, although its coast, as well as the white cliffs of historical Lyme Regis, a little farther on, can be plainly seen from my window at Teignmouth. In the summer, when special trains, coaches and steamers are provided, all these places are brought closely into touch with one another, and are easy enough of access; but, after all, I think I prefer the more quiet, even though more circuitous route which an early-spring visit invokes.

SIDMOUTH.

Sidmouth lies in a lovely nook, surrounded by hills and facing the sea, or, to be more accurate, the wide bay, bound by Lyme Regis on the one side, and Tor Bay on the other. It is fast becoming a fa-

mous seaside resort, and except in the parts of Old Sidmouth which retain old-time features, it has a family likeness to similar places all over this sea-girt isle.

There is now a fine promenade, extending from one end to the other, and a sea-wall to protect the houses facing it from the ravages of the sea, the calamity which once overtook it, as long ago as 1824, not having been forgotten. The story goes that it was in one of the cottages afterwards washed away in which lived the famous Mrs. Partington, who was credited with trying to keep out the Atlantic with a mop. She was excellent at a stop or a

pily, no serious harm was done, although the incident caused much comment at the time, and is recorded as an incident in the early history of Victorian days. The residence in Sidmouth of the Duke and Duchess of Kent brought many royal and notable visitors to the then pretty little village, whose advent has not been forgotten. Probably in those long-ago days royal ears heard the voice of the town crier, arrayed in his crimson coat, white waistcoat and cocked hat, prefixing his announcements with the "Oyez! Oyez!" of his office. I heard the town crier during my little visit to Sidmouth, but he was in the everyday, unpic-



The Royal Glen, Sidmouth.

puddle, but should never have meddled with a tempest.

The exact age of the fine old parish church is not known, but there are records which prove it must have been in existence before 1259. It has been restored from time to time, and, as in so many of the churches of Great Britain, the various styles of architecture introduced in pillars, windows, rood-screens, etc., mark various stages in its history.

The sextoness, who showed me over the church, pointed with pride to a very fine window which the late Queen had placed over the chancel in memory of her father, the Duke of Kent, who had died at Sidmouth on

turesque garments of 1907, and I must freely confess I could not understand one word he uttered after he had stopped ringing his most un-musical bell.

The corner of the Sidmouth Esplanade in the picture is a bit of the old village, and close to the Royal Glen. The road behind the house leads over the cliff to some lovely places which I longed to visit, had time permitted, and had my purse limits not vetoed my desires. I had already treated myself to one delightful drive round Sidford and across the bridge which arched over the silvery little river "Sid," and through lanes, the banks of which



Esplanade, Sidmouth.

the 22nd of January, 1820, at "The Royal Glen," a picture of which I send. It is a very simple, unpretentious house, and is but little altered, except that the larger grounds surrounding it are public thoroughfares, since the infant Princess Victoria spent her first Christmas day there. The story goes that some school-boys, shooting birds in an adjoining field, thoughtlessly fired in the direction of the house, and that one of the shots went through the window of the nursery in which was sleeping the future Queen of England. Happ-

were covered with verdure, and with that to crown my holiday, I had to be, and indeed was, quite content.

First College Graduate.—I hear you have a job. What doing?

Second College Graduate.—Oh, running errands and cleaning inkwells and so forth.

"Like it?"

"First rate; that is, until my employer had the nerve to ask me out to his house to dinner. It's pretty tough to have to associate with our social inferiors out of business hours."—[Life.

The Quiet Hour.

BE COURTEOUS.

—1 St. Peter iii. 8.

Courtesy is not a falsehood or grimace; it need not be such.—"Bending before men," is a recognition that there does dwell in that presence of our Brother something Divine.—[Carlyle.

In the R. V., the words I have chosen as the text are translated, "Be . . . humbleminded." So, also, where it is stated—in Acts xxvii—that a Roman centurion "courteously entreated Paul," the revised translation is "treated Paul kindly." It would seem, then, that true courtesy includes humility and kindness, and it is a grace well worth cultivating. The Roman soldier's unexpected courtesy and kindness to one of the prisoners in his charge is still remembered in his honor, long centuries after his acts of bold daring have been forgotten by the world. And other acts of courteous kindness still stand out in bold relief, though performed many centuries before Rome was even thought of. Look at that tableau in Genesis xxiv. An elderly, travel-stained man, hot and tired and thirsty, goes up to a fair young girl and says: "Let me, I pray thee, drink a little water of thy pitcher."

How graceful and kind is her ready response as she quickly lets down her pitcher upon her hand, saying "Drink, my lord;" and, as if that were not enough to satisfy her desire to show hospitality, she adds, "I will draw water for thy camels also, until they have done drinking." And this was not a mere Oriental parade of grand and meaningless words, for "she hastened, and emptied her pitcher into the trough, and ran again unto the well to draw water, and drew for all his camels." Though that little scene was acted about 4,000 years ago, it is not, nor ever will be, out of date or old-fashioned. Example is always more influential than precept, and Rebekah little thought that her sweet courtesy to a dusty stranger by the well would inspire other maidens to do likewise until the end of time. If she had not been humbleminded, thinking of the needs of another rather than of the beauty of her own action, her courtesy would have been only superficial, and would have had no "salt" to preserve its freshness during all these long centuries.

In the second chapter of Exodus, we find another picture of graceful courtesy. Seven shepherdesses fill the troughs to water their flocks, and some rude, un-courteous shepherds interfere and drive them away. Then Moses proves himself to be a gentleman, keeping his courtly manners even in the wild wilderness, for he instantly stands up in defence of the weak. He delivers them out of the hand of the shepherds, draws water for them and helps them to water their flocks. Now it is not for nothing that these and similar pictures of courtesy are given a place in God's Great Book. Courtesy is not only a matter of birth, breeding or education; and it should always be more than "skin deep." Real courtesy—including humility and kindness—is a very important part of Christian character. It springs naturally from the "recognition that there does dwell in that presence of our Brother something Divine."

We sometimes see men and women who are good and honorable, and who yet bring discredit on their Christian profession by the roughness and rudeness of their manners—especially in the home circle. They seem to think that courtesy of word or act is out of place in the easy familiarity of the home atmosphere. They speak rudely or shortly to those they love best, though probably any stranger will be treated with courtesy and attention.

To cure this sin of discourtesy by outside means might result in a superficial polish, which would be little better than the former rudeness. But real Christian courtesy springs from within, being the direct result of having the eyes open to see Him Who is always with us. Those who have learned to recognize Christ in everyone will find discourtesy almost impossible. Think of the little children or the troublesome, noisy boys and girls who so often hear rough words addressed to them by those who love them best.

They may grow accustomed to being considered of little consequence, may care little for a slighting word or a hasty slap; but if God considers an act of courtesy to be worthy of a place of honor in His Word, surely He does not overlook the countless acts of discourtesy which seem to pass unheeded.

Our Lord gratefully accepted the precious ointment which was poured lavishly on His head and feet, and declared that this courteous attention should always be remembered by His Church. But the discourtesy shown by Simon the Pharisee was keenly felt by the loving heart of Jesus, and the Church can never forget that either. Simon neglected the customary signs of welcome which any honored guest had a right to expect. No water was provided to wash the weary feet, there was no kiss of greeting, and no anointing oil was poured on the head. Discourtesy to the King is no light offence on the part of a subject. It is a great mistake to fancy that a rude or unkind speech to a child is a matter of slight consequence. Our Lord's warning words bear witness to the gravity of the offence. "Take heed," He says, "that ye despise not one of these little ones." And He makes it very plain that any kindness or unkindness shown to a child is accepted by Him, for He says: "Whosoever shall receive one of such children in My Name, receiveth Me; and whosoever shall receive Me, receiveth not Me, but Him that sent Me." If we see Christ in everyone, we cannot be discourteous.

Then we must always remember that a rude, unattractive Christian will tend to drive others away from Christ, making them dislike the very name of Christianity. And terrible indeed is the warning against dragging down Christ's little ones. "Whoso shall cause one of these little ones which believe on Me to stumble, it is profitable for him that a great millstone should be hanged about his neck, and that he should be sunk in the depth of the sea." Holmes says that our Lord's command regarding children—"Forbid them not!"—must refer also to the "forbidding face," because children are great readers of faces, and "a face bright with looking unto Jesus must carry its impressions to those who look upon it. We may be unconscious of it, but if we have been on the Mount with God, others will see it. God works through features, and sometimes we are responsible for the impressions conveyed through our faces."

If we are often on the Mount with God, our eyes will be clear enough and our hearts pure enough to see Him everywhere. As Christ is in His brethren here in the world, the least discourtesy to them must touch Him, and cannot be lightly regarded by those who love and honor Him.

Anyone can be polite to strangers—that fleeting courtesy requires little effort and deserves little praise. But to be bright and pleasant and courteous all day and every day, when other people are unreasonable or complaining, cross or disagreeable, rude or unkind, is by no means so easy. For true courtesy must go under the surface. To be rude in thought and put on a smooth, polite manner, is to be very untrue; and it is also generally very irritating to the other person, who instinctively feels that he is being smoothed down and cajoled. We can generally feel each other's thoughts, and are not easily deceived by outside manners. As Christians we are especially bound to be kind to those who are not particularly attractive to us. "If ye do good to them which do good to you, what thank have ye? for sinners also do even the same," says our Lord. To meet unkindness with cheery kindness, and to meet rudeness with winning courtesy—not once only, but continually—is to be sure of victory in the end, and no ignoble victory either. Love is stronger than hate, good can overcome evil, life must prevail over death. Enemies can, by persistent kindness, be transformed into friends. As God sends His rain and sunshine to carry healing and life to the evil as well as the good, so His children must be ready to show kindly courtesy to all around them. Those who do not seem to deserve it, or even appreciate it, may yield quite unexpectedly and turn towards the Sun of Righteousness whose light they see always reflected in a sunny, loving face. Courtesy, like sunshine, may win them, but certainly coldness and discourtesy

never will. "By love serve one another," writes St. Paul, and humility grows in loving service; until to "serve one another" becomes a most glorious vocation, and we can understand how our Master and Lord was exalted by His life of lowly ministry. He is always ready to reach out with kindest courtesy to the meanest creature He has made; and how then can we venture to look down with lofty condescension or disdain on any of our brothers and sisters.

The only possible root of true Christian Courtesy is LOVE, which is the grand foundation as well as the crown of everything worth having.

"Familiar acts are beautiful through Love." HOPE.

About the House.

RHUBARB AND ASPARAGUS.

Rhubarb Jam.—Six lbs. rhubarb, 6 lbs. lump sugar, and rind of 3 lemons. Put the rhubarb into preserving kettle with sugar. Mince the lemon rind, and add, keep stirring to prevent rhubarb from burning. When sugar is dissolved, let boil quickly for three-quarters of an hour, skimming well.

Stewed Rhubarb.—Cut into pieces about 3 inches long; cover with cold water, set on a moderate fire, and let come slowly to boiling point, but not actually boil. Drain the water off carefully, not breaking the rhubarb, and to each pint of liquid add 1 lb sugar. Boil this till syrupy, then pour over the rhubarb. A bit of ginger-root may be boiled up with the rhubarb, if preferred.

Rhubarb Marmalade.—Wash young rhubarb (but do not peel) and cut into inch lengths. Weigh, and to each pound allow $\frac{1}{2}$ lb. sugar. Let stand over night. Place in a preserving pan, bring slowly to the boil, then boil an hour, stirring and skimming frequently. About 15 minutes before the boiling is finished, add for each quart the juice and rind of a lemon, the rind being peeled off thinly and cut into fine bits. Seal while hot.

Rhubarb and Orange Marmalade.—Four pounds rhubarb and four oranges, with the juice of all and peel of two, 4 lbs. sugar, 1 lemon, $\frac{1}{2}$ lbs. raisins. Prepare oranges by squeezing out the juice and cooking the peel in water till tender. Drain, and scrape out the white skin. Extract the juice of the lemon. Put rhubarb into a granite kettle, heat it slowly to boiling point; cook 15 minutes; then add sugar, juice, orange peel (cut fine), and raisins. Cook slowly until thick. The raisins may be omitted, if preferred. Rhubarb and pineapple also makes a delicious preserve.

Rhubarb Pudding.—Stew to a pulp, sweeten, and thicken with cornstarch—4 tablespoons to the quart. Let cool in a mould, and serve with cream and sugar.

Rhubarb Conserve.—Chop fine 3 $\frac{1}{2}$ lbs. rhubarb; add grated yellow rind and juice of 2 lemons, with 3 lbs. sugar, and let cook $\frac{1}{2}$ hour, then add $\frac{1}{2}$ lb. blanched and shredded almonds and $\frac{1}{2}$ cup dried orange peel, and cook a second $\frac{1}{2}$ hour.

Delicious Rhubarb Pie.—Bake in 2 crusts the following mixture: One cup chopped and peeled rhubarb, 1 egg, 1 cup sugar, 1 rolled cracker, and butter, size of a walnut.

Asparagus on Toast.—Boil until tender in salted water, putting in the large stalks first, and adding the small ones six or eight minutes later. Drain, lay on buttered toast, and cover all with a good cream sauce.

Stewed Asparagus.—Break stalks in inch lengths, putting the tough bits on a plate by themselves. Tie the tough pieces in a bit of clean cheesecloth, and lay in the kettle with the tender asparagus and enough slightly-salted water to cover. Cover and stew gently until done. Throw away the part tied in the cheesecloth, which has only been put in to strengthen the juices; season remaining portion with butter, pepper and salt, and serve.

Now, dear reader, tell me where my soul dwells. For I have seen God and God's light in me, and I have seen God and God's light in my brother out and found all things new. —Ernest Crosby.



No More Drudgery

Housework Made Easy With

The Chatham Kitchen Cabinet

JUST think what a saving in time and labor you can make with a Chatham Kitchen Cabinet—the number of steps you save in a day—the ease with which you can prepare a meal! With the Chatham every ingredient and every cooking utensil you need in the preparation of a meal is right within reach of your hand and there is no constant running back and forth from kitchen to pantry for first one article and then another.

The Chatham Kitchen Cabinet enables you to get a meal—stir up a cake—or mix a batch of bread in just half the time—with half the labor that it takes you in the old way—running back to the pantry every minute or two for first, the salt—then the spice—next the flavoring—and so on. Now you can get this wonderful work-saver at a very reasonable price on my

Liberal Time Payment Plan

So if it isn't convenient for you to pay all cash, you can pay for the Cabinet on such easy terms that you'll never miss the money—while all the time you can be enjoying its benefits. And my Kitchen Cabinet is not only useful—but ornamental as well—and any woman will be proud to own one. It not only simplifies cooking—but it keeps your kitchen always neat and tidy and does away with all the clutter of cooking and baking.

If you are thinking of replenishing your home furnishings you cannot invest in anything that will give as much genuine help in your housekeeping as the Chatham Kitchen Cabinet—and once you use it you'll find the regular weekly—monthly—and yearly housecleaning is no longer a bugbear. Your kitchen and pantry take the biggest part of your time—and make the hardest part of your housework—but if you'll use my Cabinet you can cut out all the kitchen drudgery and use the extra time for pleasanter work or recreation.

Now you should get my FREE KITCHEN CABINET CATALOGUE at once—and you can get it, postpaid, by writing a postal. Send for it today without fail. It's a handsome book that shows beautiful photographs of the Chatham Kitchen Cabinet and gives my prices and terms.

It's free for the asking. Write for it today. Address me personally. MANSON CAMPBELL, President, The Manson Campbell Company, Ltd., Dept. 5 A Chatham, Ont.

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Stocks Carried at Montreal, Brandon and Calgary

Your Daily Bread

should be as pure as you can make it, but it cannot be pure unless pure ingredients be used. "FIVE ROSES" Flour is made by methods which render it as pure as flour can be made, and the use of it to make your bread and pastry will give you more satisfaction and purer food than if an ordinary flour were used. "Five Roses" is the standard flour for purity the world over.

Ask your grocer for a bag to-day.

LAKE OF THE WOODS MILLING CO., LIMITED.

Wanted Men

\$75 to \$150 per month. Hundreds of men wanted to fill positions as Firemen and Brakemen. We teach and qualify you by mail, and assist in securing positions. Write to-day for booklets and full particulars.

Dominion Railway Correspondence School

Dept. F. WINNIPEG

ADVERTISE IN THE ADVOCATE

SNIDER'S BEST EARLY POTATO

The most productive early variety by actual test; does not rot. Send

\$1 per 15 lbs., \$3 per bushel, or \$8 per barrel; C. O. D.

Out of 116 varieties tested at O. A. C., Guelph, Snider's stands first, being free from rot, yielding 300 bushels per acre, and maturing in 88 days. Two varieties yielded a few more bushels per acre, but were nineteen days later, so are not in same class with Snider's. It is also a strong grower. See ad. in Farmer's Advocate of February 28th, 1907, for picture of leaf measuring over six inches in width. You must have a strong grower, with heavy foliage to withstand the blight and bugs and dry weather.

YOU RUN NO RISK. READ THE FOLLOWING:

"This is to certify that I am personally acquainted with Mr. Thos. Bousfield, the grower of Snider's Best Early Potato. I have seen his crop of potatoes, also the original copies of letters received re tests made, and know them to be genuine. I am confident that all orders will be satisfactorily filled."

(Rev.) G. Francis Morris, Carlisle, Ont.

Address all orders to:

THOMAS BOUSFIELD, CARLISLE, ONT., WENTWORTH CO.

THE DUNN HOLLOW CONCRETE BLOCK MACHINE.

Third year in the market, and every machine sold doing good work. Simple in construction and operation. Suitable for block-making for a single building or for a regular block making business. A moderate priced machine; compact and portable. No power required. Has suited every purchaser, and will please you. Western shipments made from our Winnipeg warehouse.

Write us for catalogue.



Address Dept. O. THE JAS. STEWART MFG. CO., Ltd., Woodstock, Ont.

Runs in Oil

Why do you oil any machine? To lessen friction and wear. A grindstone will run fairly well and last quite a number of years if it is only oiled "once in a while." But a grindstone turns only about 65 times a minute.

Now every mechanical cream separator has a bowl that skims the cream from the milk by revolving thousands of times a minute. It's driven by gears which also turn at high speed. You see at once that unless all the working parts of a separator are thoroughly oiled they will soon begin to wear away, and remember, that the gears of a separator must fit into one another exactly or they will run hard and make trouble.

The oiling device of the Improved

U.S. CREAM SEPARATOR

is the result of years of careful and expensive experimenting. But it's worth all the trouble because it is recognized as superior to that of any other cream separator. The cut will give you an idea of it. Notice that part of the frame has been broken away showing the driving gears and bowl. Notice that the bowl which turns fastest is kept thoroughly oiled by the automatic oil cup. Notice, too, that the lowest gear wheel touches a pool of oil. When the gears are in motion, this oil is thrown up in a spray just as a buggy wheel throws water when you drive through a mud puddle. In this way all the gears run in oil and that's why there is so little friction to a U.S., and why it is the longest-wearing and lightest-running separator made.

But we can only give you an idea of the superior oiling devices here and can't even mention the other fine points of the U. S. Tell you what, though, if you want we'll send you free a copy of our big, handsome, new separator catalogue that tells all about the U. S. Just say, "Send catalogue number D 110". We'll mail you one right away. Better write us now while you think of it. Use a postal if it's handiest, and address

VERMONT FARM MACHINE CO., Bellows Falls, Vt.

Prompt deliveries of U. S. Separators from warehouses at Auburn, Me., Buffalo, N. Y., Toledo, O., Chicago, Ill., LaCrosse, Wis., Minneapolis, Minn., Sioux City, Ia., Kansas City, Mo., Omaha, Neb., San Francisco, Cal., Portland, Ore., Sherbrooke and Montreal, Que., Hamilton, Ont., Winnipeg, Man. and Calgary, Alta.

ADDRESS ALL LETTERS TO BELLOWS FALLS, VT.

Current Events.

John D. Rockefeller has donated \$50,000,000 for the education of the Chinese.

Lord Halifax, who was born at Windsor, N. S., in 1832, died in London, England, on April 21st.

Three hundred Japanese laborers, who were refused admission at San Francisco, have landed at Vancouver.

Owing to the exigencies of the grain-carrying trade, thirteen vessels will be added to the Upper-lake service this year.

A Canadian Indian, Thomas Longboat, has won the Marathon race of 25 miles at Boston, Mass., defeating 103 competitors.

Vladimir Poulsen, of Copenhagen, is said to have invented an entirely new wireless telegraphy system, better and cheaper than Marconi's.

It is rumored that a Latin union, supplemented by Great Britain, for the maintenance of the status quo in the Mediterranean, is in progress.

Twenty million people in Russia must be supported by relief committees until the harvest. The famine is the worst that Russia has ever known.

The building at the corner of Lorne and Front Streets, Toronto, has been rented by the Britishers' Welcome League, and will be used as an immigrants' home.

A new anæsthetic called stovaine, which is injected into the spine, producing temporary paralysis below the point of injection, is being used in England for operations, in many cases in which, owing to great age or heart weakness, the use of chloroform might be dangerous.

A serious fire, which caused damage to the amount of 3,000,000 francs, occurred at the French arsenal, Toulon, last week. It is suspected that the fire was the work of incendiaries, since the Government works are said to be a hotbed of revolutionary feeling.

Prof. Ellis, of the School of Practical Science, Toronto, declares that ashes cannot burn, and that the most of the mixture of coal, ashes, salt and oxalic acid, "discovered" by the Altona cobbler, can do, is to conserve the heat thrown off by the coal. He advises caution in using it, in view of the corroding action the salt and acid may have on the iron of stoves and furnaces. And so another bright dream has been dispelled.

NEW PUBLICATION RATES.

Mr. W. H. Smith, Secretary of the Post-office Department, recently stated that there was nothing in the new agreement to prevent mail matter from either country being sent across the line by freight or express, and then being mailed at the usual rate of one cent per pound, if the authorities permitted. Thus, American publishers might send over consignments to their Canadian agents, who could then distribute them to their subscribers at the domestic rate, and Canadians do the same in the United States. It now appears, however, that the American post-office authorities will not permit this, and since Canada is almost certain to adopt the same rule, it seems as

though publishers on both sides of the line will have to pay the full rates imposed by the new regulations, which come into force on May 8th.

THE COLONIAL CONFERENCE.

Judging by the attention which it has drawn upon itself, the Colonial Conference in London has surely been "a sight to make surrounding nations stare"—Botha and Jameson, who fought against each other in South Africa; Botha in the forefront of the Boer war against Great Britain, yet to-day cheered at every point of his progress through London; Sir Wilfrid Laurier, French of blood, yet foremost among British subjects; representatives from the four corners of the earth, and all united in the interests of the great British Empire. The outcome of the Conference has been embodied in several resolutions, the chief of which are as follows: (1) That an "Imperial Conference" is to be held every four years, "at which questions of common interest may be discussed and considered; as between His Majesty's Government and the Governments of the self-governing dominions beyond the seas." The Prime Minister of the United Kingdom will be ex-officio President, and the Prime Ministers of the self-governing dominions, also the Secretary of State for the Colonies, will be ex-officio members of the Conference. Such other Ministers as the respective Governments may appoint will also be members of the Conference. (2) That a permanent Secretariat shall be appointed for the interim between the conferences, and charged, under the direction of the Secretary of State for the Colonies, with the duty of obtaining information for the use of the Conference, of attending to its resolutions, and of conducting correspondence on matters relating to its affairs. (3) That a central staff of defence be created, for which no money contributions will be asked from the Colonies, but upon which the self-governing dependencies may be represented if they so choose; this staff "to study military science in all its branches, and collect and disseminate to the various Governments military information, and to undertake the preparation of schemes of defence on a common principle." . . . The question of Imperial preference was also discussed, Premier Deakin being especially desirous that schemes toward it be brought to a conclusion. It was notable that, in regard to questions of defence, Sir Wilfrid Laurier remained conspicuously silent.

The British press has been almost at one in eulogizing the establishment of the Imperial Conference as a great step towards Imperial Federation, the Morning Post alone looking upon the movement as an effort toward bureaucracy.

Before returning to Canada, Sir Wilfrid Laurier will visit France, Switzerland and Italy, and, in especial, the village of Lachendis, in Charente, whence in 1660 his ancestors emigrated to Canada. There has been some talk of his attempting, while in Paris, to lay the foundation of a treaty of commerce between France and Canada.

RECIPES.

Wheat Griddle Cakes.—To 1 large cup of cooked wheat porridge add 1 pint milk and 1 beaten egg. Sift together 1½ pints Five Roses flour, 1 teaspoon sugar, ½ teaspoon salt, 2 teaspoons baking powder. Add, and bake on a griddle.

Afternoon Cake.—One cup sugar, ½ cup butter, 1 cup milk, 3 eggs, 1 cup raisins, 3 cups Five Roses flour, 2 teaspoons baking powder. Flavor with nutmeg and cinnamon, and bake in pattypans.

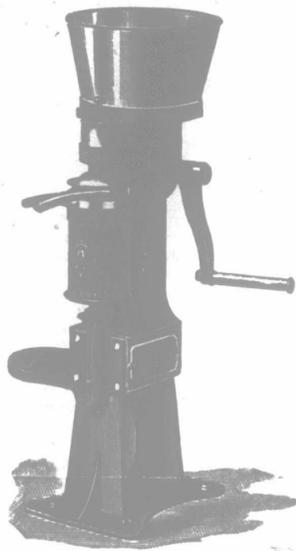
"What is inconsistency?" asked the curious one.

"Well," responded the wise one, "it is that spirit which moves a woman whose sleeves stop at the elbow to scold her husband because he hasn't cuffs on." —Chicago News.

NEVER SAW BETTER SKIMMING

than was done by the

Magnet Cream Separator



This is the verdict of the expert engaged by the Crescent Creamery Co.:

WINNIPEG, MAN., Apr. 20, 1907.
The Petrie Mfg. Co., Ltd. Ltd.
Winnipeg, Man.:

Gentlemen:—I have this day made two tests from the MAGNET Cream Separator No. 1.

TEST NO. 1.

Per cent. of fat in milk $\frac{1}{2}$ temp., 85.
Per cent. of fat in cream, 23%.
Per cent. of fat in skim milk, $\frac{1}{2}$ space in skim milk bottle.

TEST NO. 2.

Per cent. of fat in cream, 33%.
Per cent. of fat in skim milk, $\frac{1}{2}$ space.
I find the MAGNET as close a skimmer as any separator I have tested. Also find it easy to turn.

Yours truly,

FRED LUTLEY,
Milk and Cream Tester for the Crescent Creamery Co., Winnipeg, Man.

The test shows only about 3 ounces butter-fat left in a ton of milk. This shows the wonderful perfection attained by the MAGNET.

No special machine was built for this test. It was made with the regular and only machine that we make. Every buver of a MAGNET Separator gets one that will

do as good work as the one tested at the Creamery. Note the remarks about easy turning. On these two points the MAGNET has no equal, viz.:

Close Skimming and Easy Turning.
Add to these great points the square gear, double support to the bowl, with the one-piece skimmer, so easily cleaned.
These five points are only found in the MAGNET, which places it in a class by itself.

Write for our 1907 Catalogue.

THE PETRIE MFG. CO., LIMITED,
Hamilton, Ont.; Winnipeg, Man.; St. John, N. B.; Calgary, Alta.

Western distributing points:
Regina, Sask.; Vancouver, B. C.; Victoria, B. C.

CHEAP HOMES IN THE GREAT WEST.

A Million Acres of Splendid Wheat Lands,

Wild, improved and partly improved, for sale in the best districts of Western Canada. Only small cash payments required. Balance in term of years at ordinary rates of interest. Your crops will make your future payments. Thousands are becoming independent from the proceeds of such land. So may you. It's the last opportunity. The best investment possible. Write us for booklet and other information.

THE H. H. CAMPKIN CO., LIMITED
Head Office: Indian Head, Sask.

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Potato Growers

If you grow potatoes for profit you want Houghton's Potato Grower. Two rows handle it better than any splendid grower. Write for booklet that tells what we have to offer. Price low.

HENRY HOUGHTON
Saskatoon, Sask.

Simply Perfect and Perfectly Simple. Box F.

Children's Corner.

[All letters for Children's Corner must be addressed "Cousin Dorothy," 52 Victor Ave., Toronto. Otherwise they will not be published.]

PUZZLE COMPETITION.

Anyone under 16 years old may try for the prize. Neatness will count, and answers must be in before May 24. In case of more than one perfect paper, the prize will be awarded to the first arrival.

COUSIN DOROTHY.

52 Victor Ave., Toronto.

1. Jumbled Letters.—Letters spelling the name of an animal: Kyemon, Bibtar, Eosum, Braze, Noli, Grujaa, Figefer, Kumarts. The name of a plant: Gecbaba, Otaotm, Tchahireok, Hitselt, Umelnl.
2. Squares.—Find three letters which spell: (a) the name of a boy, (b) a small insect, (c) something that is done to leather. Four letters spelling: (a) a heavenly body, (b) a name for sailors, (c) what artists study, (d) very unpleasant animals.
3. Acrostics.—The first letters of the following nouns will spell (a) the name of a great admiral, (b) the name of a great general.

- (a)
Something used in sewing.
An important part of a train.
An English peer.
One of a crew.
A strong-smelling vegetable.
A time of darkness.
- (b)
A refreshing drink.
A province of Canada.
A safeguard for ships.
The covering of a bird.

The country to which we owe most.
4. Fill in the missing letters, and you will have ten Canadian towns and cities:

—IN—PE—; —U—B—C—; H—I—A—;
—RA—F—RD—; P—N—T—G—IS—
E—E—; —T—W—; —AN—OU—E—;
K—G—T—N—; G—ELP—; P—T—
BO—O—.

5. Why is a bad joke like a poor pencil?
Where did the witch of Endor live?
If a fender and fire-irons cost \$4, what will a ton of coal come to?

What is the difference between a bankrupt man and a feather bed?

6. Make a sentence out of the following letters: esiwBdnahetdaer etacovdA-sremraF.

ARE LARGE FAMILIES BETTER THAN SMALL?

Affirmative.

Dear Cousin Dorothy,—Is it not really time Fred Hungerford's letter was answered, as I do not think he is correct? If, in big families there is a great capacity for quarreling, is there not just as great a chance for loving? I am acquainted with several children who come from families where there are only one or two children, and they are generally selfish, and do not know how to play unless with a dog or a cat. On the other hand, boys and girls from big families have lots of jolly games, and are hearty in playing with others. Again, so far as disease and the small families of the rich are concerned, take Mr. Andrew Carnegie for example. He is rich enough surely, and has only one little girl, yet she is an incurable invalid. Just think of the lonely existence of that child, though she may be surrounded with every luxury. How much more merry would be her well days, if she were surrounded by a lot of brothers and sisters who cared for herself and not for her wealth. Of course, I think the best place for large families is out in the country, and not in the town. I could say more, but I do not want this put in the waste-basket.

ONE OF A LOT (age 17).

Nashville.

NEXT SUBJECT FOR DISCUSSION.

"Can boys be as useful at home as girls?" You see, Cornerites, that the debates get a good deal mixed up, on account of the letters having to be sent to the printers some time ahead. But we get along all right, don't we?

C. D.

The Advantages of Education.

Dear Cousin Dorothy,—I read the Children's Corner, and I saw there was to be a debate on "education of farmers." I think farmers SHOULD be educated more than they are now. I think there should be higher education in the public schools, so as to give farmers' children that cannot afford to go to high school better education. If that was the case, we might some day have more farmers in our Parliament than we have now. I think farmers should be capable of ruling the country as well as doctors and lawyers. Wishing the farmers and "The Farmer's Advocate" every success.

ANNIE L. CAMPBELL (age 11).
Corbyville, Ont.

A Lively Letter.

Well, Cousin Dorothy,—I have chewed the end off my pencil while wondering how I shall begin my first letter. I would have written before, had I not remembered the insatiable appetite of the W.-P. B., and thought it better to keep my distance. At last, however, I have given way to the temptation, and here I am—What! no admittance! Well, just this once, and I won't bother you again. There, I knew you would let me in on that promise. I am not acquainted with a single person in the "Corner," unless it is Blossom, and I have an idea who she is. Cousin Dorothy, don't you think it would be nice to have colors? It would be rather odd to have plaid for our colors; that is, if you approve of having any. I went to a friend's a few days ago, and had just a fine time. We "sugared off" every blessed day. We even went to the bush and ate syrup out of little wooden spoons. Quite a few years ago, a friend and I were going through a sugar bush, and, seeing the buckets under the spouts, we thought we would like some maple syrup. So we picked up a bucket, and if it wasn't full of bugs, and every one we peered into had bugs. But this did not scare us, and we tasted it. Of course, it was sap, and we silly little idiots did not know it. I would love to tell you more about my visit, but I am afraid that the W.-P. B. is looking longingly at this letter, so I had better skidoo.

CLEOPATRA.

How would we manage about colors? Would everyone who reads the Corner be allowed to wear them? Anybody else got anything to say about it? C. D.

* THE LETTER BOX.

Dear Cousin Dorothy,—I am an interested reader of the Children's Corner. I agree with those that are beginning to write about some other subject, for I think it very monotonous to be reading about cattle and pets all the time; but I think that short stories about how you are spending your days at home or about your school days, or any other subject you may desire to tell about, would be more interesting than writing about other countries. What do you think? I hope you all agree with me. I go to school. We have a consolidated school. There are a large number of scholars going. We had some fine coasting this winter, but it did not stay long. Wishing "The Farmer's Advocate" every success.

REBECCA R. MCGILLIVRAY (age 13).
Purl Brook, Antigonishe Co., N. S.

Dear Cousin Dorothy,—I live on a farm, and just across the road is Fair Child's Creek, a tributary of the Grand River. How many of you girls, that are members, like housekeeping? I think that it is fun. I have four sisters. I would like to have some girls correspond with me. The letters should contain riddles, as I am very fond of them. STELLA ALLAN (age 10).
Onondaga, Ont.

Dear Cousin Dorothy,—I live on a farm, a few minutes' walk from the village of Pakenham. We are beautifully situated on the banks of the Mississippi; skating in winter and boating in summer. I am visiting away from home, where there are two little boys, Albert and Charlie. Albert has some pet pigs, and Charlie has a pet calf. Charlie helps me gather the eggs every day.

LAURA MacARTHUR (age 11).
Pakenham, Ont.

The Doctor Said Nervous Prostration

But After Weeks of Effort He Could Not Help Me, and I Was Cured by Dr. Chase's Nerve Food.

Sleeplessness, failure of appetite and digestion, and then nervous collapse. This is the story told in this letter. But there is also new hope for similar sufferers in the cure described.

Mrs. Alf. Stevens, Burgessville, Oxford County, Ont., writes:

"Two years ago last November I was run down, and did not know what was wrong. I could not sleep or eat, and at last my nervous system gave way entirely, and I had to go to bed. The doctor told me I had nervous prostration, and, though he doctored me for some weeks, I did not get any better.

"I then began the use of Dr. Chase's Nerve Food, and by the time I had used six boxes I was completely cured. People remarked how well I looked, and I said, 'Yes, and I feel well, that is the best of it, and Dr. Chase's Nerve Food did it.'"

It is in extreme cases like this one that Dr. Chase's Nerve Food shows its extraordinary power of building up the nervous system and overcoming disease. 50 cents a box, at all dealers, or Edmanson, Bates & Co., Toronto.

THE MORE YOU TAMPER WITH

Supe fluous Hair

THE MORE AMBITIOUS AND ENERGETIC IT BECOMES.



There is no other treatment that will permanently remove this disfiguring blemish but Electrolysis. Don't tamper (cut, pull, burn or use depilatorie) with it, but come here and be successfully treated. Our method is reliable and practically painless. Satisfaction guaranteed.

Princess Complexion Purifier

makes the skin clear, pure and fine. It removes tan, freckles, moths patches and all discolorations, cures rashes, black heads, pimples, eczema, ringworm, ivy poisoning, etc. Price \$1.50, express paid.

We have reliable home treatment for dandruff falling hair, lines and wrinkles, red nose, sore hands and feet, and undeveloped figure. Send stamp for booklet F.

Graham Dermatological Institute, Dept. F., 502 Church St., Toronto. Established 1892.

Water! Water!



LISTOWEL DRILLING MACHINE CO.

Manufacturers of well-drilling machinery and drilling tools. The most efficient and best-equipped outfit in Canada to-day. Catalogue and full particulars on application.

LISTOWEL, - ONTARIO.

\$12 WOMAN'S SUITS, \$5

Suits to \$15. Coats, raincoats, skirts and waists at manufacturers' prices. Send for samples and fashions. Southcott Suit Co., Dept. 27 London, Can. Send for our catalogue, which lists everything you use.

FOUL IN FEET.

Three of my cattle have become very lame behind. They are swollen from the feet up.

Ans.—The symptoms given are very meagre, but I am of the opinion the trouble is foul in the feet, caused by either standing in or walking through irritating substances, as liquid manure, stagnant water, etc. Remove to dry, clean quarters, and apply hot poultices to the feet; use linseed meal and boiled turpentine. When the soreness disappears, if any raw or tender surfaces appear, dress three times daily with carbolic acid, 1 part, sweet oil, 30 parts. V.

Dear Cousin Dorothy.—We live on a farm on an island. This island is seven miles long and two miles wide in the widest place. There are forty-two families living on it. And, also, we live on the south side of the Bay of Quinte. It is a beautiful place in the summer. We can troll and catch bass, pike and other fish. EVELYN THOMPSON. Big Island.

Dear Cousin Dorothy.—My father has taken "The Farmer's Advocate" for three or four years, and we like the paper very well. We live at Mt. Elgin Institute, and there are about one hundred Indian pupils at the Institute. There are Indians living all around us, and we live near a river called the Thames. I have three miles to go to school, and I am in the Fourth Book. We have a ride to school every morning, and an Institution boy or an officer comes after us at night. We have a dog named Collie, and a very snooty cat. I think I will close for this time, wishing "The Farmer's Advocate" every success. WALTER MATTHEWS (age 12). Muncey, Ont.

What kind of a cat is that? C. D.

Dear Cousin Dorothy.—This is my second letter. We live on a farm about 13 miles from the City of Peterboro. Rice Lake is two miles south of here, and the Otonabee River is two miles north. In summer, the boats carry passengers up the river to Peterboro. I sometimes go on the boat, and like the sail very much.

HERBERT E. DAWSON (age 8). Lorenz, Ont.

With the Flowers.

PRUNING FLOWERING SHRUBS.

In this department last week there appeared an excellent reprint, dealing with the care of shrubs. Upon the subject of pruning, however, more might have been said. As a rule, the amateur goes at the work in March, thinning out relentlessly as though the shrubs were apple trees, and never dreaming that he is cutting out hundreds of embryo-flower shoots in the process. Flowering shrubs, as a rule, need very little pruning except to cut out dead or weak shoots, which may be done in spring before growth begins. Immediately after flowering, however, they should be headed back just a little. This will induce the growth of new shoots during the summer, and it is upon the new wood, of course, that the bloom will appear the following spring. When pruning drooping shrubs of any kind, care should be taken not to destroy the beautiful fountain-like effect. Better leave them almost strictly alone except to cut out such growth as is distinctly disfiguring. When planting out shrubs that blossom before the leaves appear, e. g., Forsythia and Japonica, care should be taken to place them where they will have a background of evergreens; otherwise a great deal of their beauty is lost.

A PROTECTION FOR CHERRY TREES

A shrub that should be seen more commonly than it is the Juneberry (Amelanchier Canadensis). It is perfectly hardy, grows wild in many parts of Canada, and in all probability would accommodate itself quite readily to almost every other part. The Juneberry grows into a small tree, which bears beautiful loose-petalled white flowers and a profusion of blue berries, which ripen with the cherries. Robins are very fond of these berries and will leave cherries any time to eat them; hence Juneberry trees may well be planted as a protection for the fruit orchard, as may also pin cherries, or any other small wild fruit. Better this than to shoot the robins, which, after all, are among the best friends a farmer has. It is often forgotten that these fruit-eating birds also eat caterpillars and insects of all kinds, and that, upon these, when the fruit season is over, their chief means of subsistence must depend.

Telephones

If you have no telephone line in your locality, now is the time to build one. It's not a difficult proposition. Get about ten men together with a small amount of capital, organize a Telephone Company and build a line.

Write to-day for our Bulletin No. 2. It tells all about organizing Telephone Companies and constructing the lines.

We are the only manufacturers in Canada who can supply you with anything and everything needed to complete a telephone system.

Northern Electric & Mfg. Co., Winnipeg. (Limited) Montreal.

Beautiful Interiors

whose rich and handsome appearance can scarcely be equalled by any other finish at any price, can be obtained at a very moderate cost by using our

Classified Metal Ceilings and Walls.

Hundreds of harmonious designs suitable for any room, from a bathroom to a hotel rotunda or theatre. Our Metal Ceilings and Walls are very quickly and easily put on, and are practically everlasting. They are washable and sanitary, and afford a real protection against fire, dirt and vermin. They add greatly to the safety and comfort, as well as the beauty, of a room.

Send for our Catalogue, showing dozens of Classified Designs. 50

METAL SHINGLE & SIDING CO., Limited - PRESTON, Ont.

QUESTIONS AND ANSWERS. Miscellaneous.

DIFFICULT BREATHING IN SOW

Have a young sow (a fall pig), which had done well till about ten days ago. Has difficulty in breathing; every third or four breath will be exhaled with a gasp. There seems to be a thickening of the glands of the throat. She has been kept with a mate in a warm, confined pen during winter, with little exercise. She will not eat, but seems bright, and does not appear to get better or worse. She is due to farrow the last of May. What do you consider the trouble, and is there any remedy? C. P.

Ans.—The trouble is doubtless due to lack of exercise, and liberal feeding. The only hope for her is to get her out on the ground and on grass as soon as possible, and give her a good bed of straw on the sunny side of a building, protected from cold winds or drafts. Give laxative food, as bran, ground oats and greasy swill. We should have little hope for the success of the prospective litter, considering the treatment and condition of the dam at this date, but shall be glad to have a report after parturition, hoping it may be better than our fears.

MUSHROOM CULTURE.

I am about to put in a small mushroom bed, and, as my information on the subject is limited, I want to get a small, simple and inexpensive handbook on the subject of mushroom culture. J. C. F.

Ans.—One of the standard books on mushroom culture is called "Mushrooms: How to Grow Them," by William Falconer. This little volume of 170 pages is published by the Orange-Judd Co., New York; price, \$1.50. A more recent publication is called "The Secrets of Mushroom Culture Simplified and Explained." This is a little paper-covered volume of 42 pages, written and published by A. V. Jackson, 3267 Northwestern Ave., Chicago, Ill., who claims to be the largest mushroom-grower in America. This is a very practical little book, but the price, \$1, seems rather expensive. Either of these volumes could be obtained direct from the publishers or through a local bookseller. There is an excellent little bulletin on this subject called "Mushroom-growing for the Amateur," by George F. Atkinson and Robert Shore, of Cornell University. No doubt, this could be obtained upon application to L. H. Bailey, Director of Cornell Experiment Station, Ithaca, N. Y. H. L. HUTT.

POULTRY AND EGGS

Condensed advertisements will be inserted under this heading at two cents per word each insertion. Each initial count for one word, and figures for two words. Names and addresses are counted. Cash must always accompany the order for any advertisement under this heading. Parties having good pure-bred poultry and eggs for sale will find plenty of customers by using our advertising columns. No advertisement inserted for less than 20 cents.

ASAP—Choice Single-combed White Leghorn eggs; 13, 75c; 30, \$1.50; 100, \$4. Geo. Easton, Jr., Whitney, Ont.

AT Valley Mills Poultry Ranch—Fertile eggs from Single-comb White Leghorns, Buff Orpingtons, \$1 per setting, \$4.50 per hundred. Mottled Anconas, settings only, \$1. No better winter layers. Free circulars. Edmund C. Apps, Box 334, Brantford, Ont.

BARBED ROCKS—Pen headed by second-prize cockerel, Toronto, 1905. Eggs, \$2 per 15. A. L. Orniston, Columbus, Ontario

BUFF ORPINGTONS—Yards 3 and 4—Headed by males whose grandams had records of from 240 to 292 eggs in one year. Eggs, \$1.25 per 15; \$5 per 100. Circulars. C. Everard Brown, Havelville, Ont.

BUFF ORPINGTON eggs for hatching from extra heavy layers \$1 per 15, \$5 per 100. Good hatch guaranteed. Hugh A. Scott, California, Ont.

BLACK Minorcas; White, Brown, Black, Buff, Leghorns; Buff Orpingtons; Barred, Buff, White Rocks; White Wyandottes; Silver Hamburgs; Pekin ducks. Eggs from winners, \$1 per setting. R. Laurie, Drumbo

BARRED Rock eggs, from a pen of the "National strain," selected for their choice barring and persistent laying of large perfect colored eggs, and mated with two prize cockerels, vigorous, blocky, barred to the skin. Price, \$1 per 13, or \$2 per 40. W. C. Shoarer, Bright Ont.

CHANCE—S-C. White Leghorns—layers; 28 eggs, \$1.50 upwards. Quick supply. E. Fiendall, Smithfield, Ont.

CANADA'S best Single-comb and Rose-comb Black Minorcas; great layers winter and summer; single comb eggs, \$1.50 per 15; Rose-comb eggs, \$2.50 per 13. T. A. Faulds, 11 Victor St., London, Ont.

CLOVER LEAF POULTRY YARDS—Barred Rock eggs for sale. Pen No. 1, \$1.50 for 13 eggs; pen No. 2, 75c. per setting or \$3 per 100. Extra heavy laying strain. D. Carmichael, Jr., proprietor, West Lorne, Ont.

EGGS for hatching from S-C. Buff Orpingtons and Pekin ducks. Write for prices. Elms Poultry Yards, Trowbridge, Ont.

EGGS—White Wyandottes (McKellar strain), Barred Rocks (Thompson strain) Per two settings one dollar. W. Bryant, Cairngorm, Ont.

EGGS—Buff Orpington, White Wyandottes (Duster strain), B. Rocks. Bred for winter laying. \$1 per 15; \$4 per hundred. J. H. Fordon, Beachville.

EGGS for hatching from McCormack's prize-winning White Leghorns at \$1 per 15 upwards. Send for mailing list. Jas. L. McCormack, Brantford, Ont.

EGGS FOR SALE—My birds won at the Ontario, Hamilton, Owen Sound and Meaford, and seven fall shows, over 300 first prizes. Barred and White Rocks, White and Silver Wyandottes, Brown and White Leghorns, Buff and Black Orpingtons, Black Javas, \$1 per fifteen or \$5 per 100. Blue Andalusians and Rhode Island Reds, \$1.50 per fifteen. F. W. Krouse, Guelph

FOR SALE—White Wyandotte eggs from prizewinning stock. Fertility guaranteed. The Daniels Bros., Valens, Ont.

INGLENOOK Poultry Farm offers eggs from selected pens of choicest laying strains of White and Brown Leghorns, Black Minorcas and Buff Orpingtons, also a select pen of White Wyandottes for show birds, but not tested for laying quality. Eggs either separate or assorted, \$1 per 15; \$5 per 100. W. H. Smith, 41 Spruce St., Toronto.

LOCHABAR Stock Farm and Poultry Yards offers eggs from the following varieties: Barred Rocks (Latham's strain), Buff Orpingtons, S. L. White and Partridge Wyandotte, \$1 per 13 Imperial Pein duck eggs, \$1 per 9. Eggs from imp. Bronze turkeys, \$4.50 per 9 eggs. D. A. Graham, Wainstead, Ont.

RELIABLE POULTRY YARDS—The breed that lays is the breed that pays. Single-comb White Leghorns are acknowledged the best everywhere. Eggs \$1 per 15, \$4 per 100. A few sets of Canada's fine L. B. P. Rocks. Catalogue free. Correspondence a pleasure. Guarantee 75 per cent. fertile. H. B. Foster, Box 359, Bowmanville, Ont.

RHODE Island Reds—Rose-comb (exclusive y.), bred eight years from carefully-selected heavy winter layers; large, brown eggs; \$1.50 per 15. Good hatch guaranteed. Jno. Luscombe, Merton, Ont.

SELECTED LAYERS—Barred Rocks (Hawkin's mating, Boyce's), \$1, fifteen; \$5 per 108. J. F. Roth, Haysville, Ont.

WHITE ROCKS—Eggs from my prizewinners at \$1.50 per 15, \$6 per 100. Geo. R. A. Miller, Valentyne, Ont.

WHITE Wyandottes (exclusive y.). Best general-purpose fowl, strongly-fertilized eggs from heavy-laying Merton and Daston strain, one dollar per fifteen. Daniel T. Green, Brantford.

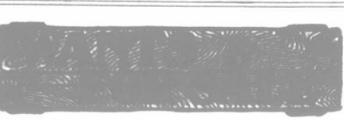
20 EGGS, \$1.75, from Silver-laced Wyandottes. Prizewinners in pens. Try us. Hertel & Bogues, Hanover, Ont.

The Top Prices Paid for Wool
Drop us a card for prices.
LLOYD-JONES BROS., BURFORD, ONT.

Now is the Time to Ship Butter, Eggs & Poultry.

Prices good. Returns quick.
QUEEN CITY PRODUCE COMPANY, LTD.
100 Front St. E., TORONTO.
WM. AGAR, MANAGER.

MORGAN'S ROUP CURE
Is guaranteed to cure Roup in all its forms, is a preventive of Colds, Gapes, Cholera, Diarrhoea and all Germ Diseases; no trouble. Price 25c. postpaid. Ask for Free article on Feeding Chicks and Poultry.



Advertisements will be inserted under this heading, such as Farm Properties, Help and Situation Wanted, Pet Stock, and miscellaneous advertising.

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

CUB BEAR wanted—Write to Mr. John F. Drury, care of Mr. Hugh Hall, Linton, Ont.

CRANBERRY vines for sale, \$2.25 per barrel, or 20c. per lb. by mail. Correspondence solicited. Henry Shaw, Waterville, N. S.

FOR SALE—Pet donkey: \$75 will buy cart, harness and beautiful pet donkey. No bad habits. Address: Bx 798, Berlin Ont.

FOR SALE—25,000 acres; wild lands; by 1/2 or full section. Adjoining homesteads. Eagle Lake District. Also improved farms J. M. Thomson, Real Estate, Indian Head.

FARM lands of all description in Manitoba, Saskatchewan and Alberta. Some excellent propositions in improved farms with small cash payment, balance in half crop. Write for particulars to Western Canada Realty Co., Souris, Man.

FOR SALE—Cranberry sets; price, \$3 per barrel. S. C. Parker, Berwick, Nova Scotia.

NEW JERSEY FARMS—5 acres good, high, dry land near Atlantic City N. J., for \$100—\$5 down, \$5 monthly. Excellent soil and climate for raising early fruit, berries, truck, squabs and poultry. Good markets close by. Two railroads. Near large manufacturing city. Pure air and water. Title perfect. Booklet free. Daniel Frazier Co., 728 Bailey Building, Philadelphia, Pa.

WANTED—Persons to grow mushrooms for us in their own homes. Waste space in cellar, garden or barn can be made to earn \$15 to \$25 per week. Send stamp for illustrated booklet and full particulars. Montreal Supply Co., Montreal.

WANTED—Farmers and others who desire farm hands and domestics for the spring. Apply to A. Stevenson, emigration agent, Kilmarnock, Scotland.

WANTED—Good, competent men to work on a large pure-bred stock farm. Good prospects for right parties. Apply: Box 41, Watervale, Ont.

WANTED, a good, competent woman for general housework in private home on Sunnybank Farm. Work light, twin family, no farm work connected, permanent position. Address Frank X. Brabant, Wallaceburg, Ont.

WANTED by experienced man, single, situation with a show herd as herdman. Can fit for show or sale. Able to take full charge if required. Address: Herdman, care Farmer's Advocate, London, Ont.

320 ACRES; fine wheat farm; 190 acres under cultivation. Good buildings. \$23 per acre. Easy terms. 640 acres prairie land. Good location. \$13 per acre. Regina city property. 100 other good propositions. Sebolt & Froom Regina, Sask.

A MISREPRESENTED HEIFER.

A bought a heifer from B. B claimed that heifer was pure-bred Shorthorn and in calf to a pure-bred bull, and that he would furnish registered pedigree. The heifer is not in calf, and B will not furnish pedigree. What will A do in this case?

ANS.—If A were to intimate to B that unless he were willing to make reasonable compensation, the matter would have to be referred to the court for adjustment, perhaps B would make a suitable settlement. We would suggest that A take that course with him, and follow it up, if necessary, by suit in the Division Court for damages.

ENGLAND'S GLORY AND CARDINAL.

Please give the number in Clydesdale Studbook of two horses travelled to Simcoe County twenty-five to thirty years ago, England's Glory and Cardinal.

As a member of these horses are in the Clydesdale Studbook, England's Glory was doubtless an English horse, probably a Shire, as two other horses of that name appear in the Clydesdale Shire book.

QUESTIONS AND ANSWERS. Miscellaneous.

SPASMODIC COLIC.

I have a horse that is subject to spasmodic colic; what kind of feed would you recommend for him? Would you recommend any condition powder, and what kind, if any?

ANS.—Feed hay, oats and bran of good quality and always in limited quantity, mixing bran or chaff with his oats so he will eat slowly and chew it well. Be careful when watering never to allow much cold water while warm. Still, it is better to water before than after feeding. It is a good plan in summer to draw the water a few hours ahead and let it stand in the pail till wanted. The feeding of a tablespoonful of ginger every night in the food tends to ward off attacks by keeping the digestive apparatus in tone.

WATERCOURSES.

1. The farms of A, B, C and D corner each other. A's watercourse originally conveyed water from A's farm across B's into C's, but natural causes diverted the water down A's side of the fence into C's, down beside the fence between him and D for the last eight or nine years, to a watercourse which originally came out of D's into C's, but last fall, owing to deposits, went further beside the fence into an unbroken field, and there divided, some going onto C's and some to D's. D has notified C that he must open the original watercourse between A and B, but B threatens he will prosecute if C attempts the same. Can D hold C responsible for alleged damage?

2. Is it lawful to divert a watercourse if a proper outlet can be secured, and water from same will not be injurious?

ANS.—1 and 2. These are matters that call for the attention of the township engineer if the parties find that they are unable to agree respecting same. They ought, however, to make an earnest effort to get together and arrange the difficulty between themselves.

HOTBED—BOOKS ON GARDENING.

I intend making a hotbed this year, but am ignorant as to what is required in the way of heating material, ground, way of building frame, etc. May I ask for information on the subject at your convenience?

ANS.—In making a hotbed, the material used to furnish heat is usually manure from the horse stable, which has been piled in a conical heap until strong fermentation takes place. It is well to turn the heap once or twice until the whole pile is thoroughly heated. It may then be placed under the frames in which the plants are to be grown. The manure should be piled in a heap about two feet deep, and extending a foot or so beyond the sides of the frames. This insures uniform heat in all parts of the hotbed. The manure should be thoroughly packed, and after the frame has been placed upon it, six or seven inches of good garden loam should be placed inside the frame in which to sow seeds.

Seeds should not be sown, however, until the temperature begins to fall after the frames have been made up. A thermometer should be used inside the frame to note the temperatures. Great care is required in watching plants in a hotbed to regulate temperature. If the sun heats down strongly upon the glass, in addition to the heat from the manure beneath, the temperature sometimes rises very quickly, and plants are liable to be injured. The temperature must be regulated by reason of raising or lowering the sash to give ventilation. Care must also be taken in watering to avoid soil drying out through intense heat beneath. If you are engaged in garden work, it would pay you to get a good book on gardening in which full directions are given for the preparation and management of hotbeds, as well as garden crops. I would recommend "Principles of Vegetable Gardening," by E. H. Bailey, published by the MacMillan Co., Toronto, price, \$1.25. Another excellent little book on gardening is "Vegetable Gardening," by Prof. S. B. Green, published by the Webb Publishing Co., Toronto, price, \$1.00.

H. L. HUTT.

PREPARING A LAWN.

Our home and buildings are all new, and the front-yard for the lawn is old sod—timothy and clover on high and dry ground. Would you advise to cultivate the ground this season to put it in proper condition for lawn grass next year? The ground is not very rich, and will need to be well manured. R. S. F.

ANS.—It would certainly be advisable to plow up and thoroughly cultivate and level ground for lawn, which is now seeded with timothy and clover. It would be best to thoroughly cultivate the ground until all the timothy and clover roots are dead, and if the ground is in need of enriching, well-rotted manure could be applied to improve it in that particular. It might be possible by repeated cultivation to get it in condition for seeding in time to get a good catch of lawn grass this fall, but unless the seed could be sown early enough to get considerable top before the cold weather sets in, it would be better to leave the seeding till early next spring.

H. L. HUTT.

GOSSIP.

In our issue of April 25th, we published an item headed "A Simple Home-made Liniment," giving a subscriber's recipe for what he says is an excellent liniment. By a mistake of the clerk, the amount of water was made two ounces larger than it should be. The correct formula is: 2 ounces ammonia, 2 ounces turpentine, 2 ounces sweet oil, and 4 ounces water.

W. J. THOMPSON'S SHORTHORN SALE.

The dispersion sale on Thursday, May 9th, of the entire Hollymount herd of Scotch-bred Shorthorns belonging to Mr. W. J. Thompson, of Mitchell, Ont., including 16 imported cows and their produce, 35 head in all, constitutes one of the most important offerings of the year, or indeed of recent years in Canada. Mr. Thompson has been a liberal buyer of the best things at public sales as well as privately in the last few years, and as the herd has been well cared for, without being pampered, the cattle are in excellent condition, in the best of health, and breeding regularly, nearly all the females of breeding age having calves at foot, sired by the excellent Matilda-bred bull, imported Rustic Chief—40419—, included in the sale, the balance being forward in calf.

Among the useful families represented are the Clementina, Kilblean Beauty, Jilt, Bruce Mayflower, Rosemary, Bellona, Bessie, Lovelace, Nonpareil and Crimson Flower tribes. Nearly all the cows are young, and a goodly number of the heifers are in calf and will soon be in profit. Recent auction sales of Shorthorns in the United States have given evidence of a decided upward turn in prices. Canadian-bred cattle taking the lead in selling value, and the probability is that an improved demand for good cattle of the right type may be confidently counted upon, and the purchase of young breeding cows and heifers at the present time looks like as safe an investment as can be tackled. Especially is this true of young imported cows and their progeny, since the high prices prevailing for the best type of Scotch-bred Shorthorns in Great Britain precludes the possibility of profitably importing any more good ones for some time. Such cattle have been selling at very moderate prices in Canada this spring and no better opportunity than the present has offered in many years to lay the foundation of a herd of the right class with a moderate outlay than the present. Mr. Thompson deserves a good sale, for he has been a plucky buyer, and breeders should feel an interest in attending his sale, as on its reasonable success will depend to a considerable extent the scale of values of the breed generally in this country for some time to come. The date of the sale makes it an unusually favorable time to buy, as stable feeding will be practically over, and pastures nearly, if not quite, ready to turn onto. Mitchell is convenient of access, being only a few miles west of Stratford on the Buffalo and Goderich branch of the G. T. R., and the terms of the sale are easy. It will probably be a good while before so good a chance will again be afforded of securing such good cattle of desirable type and breeding as this sale presents.



30 PERCHERONS

Also Shires, Hackneys and Clydes, have just arrived with our new importation from Scotland, England and France, of high-class stallions and mares. Many of them prizewinners in their native lands. Bred by the best breeders. Percherons, blacks and grays, weighing 1,600 to 2,000 pounds. Shires at two years old weighing 1,700 pounds. Clydes, bays and blacks, 4 and 5 years old, weighing 1,800 to 2,000 pounds, bred by the best in Scotland. Our Hackneys are bays and chestnuts, combining size, quality and breeding that cannot be beaten. We have a few first-class young stallions that we will sell at cost, to make room for our next importation; and all for sale at reasonable prices.

HAMILTON & HAWTHORNE, Simcoe, Ont.
53 miles south-west of Toronto on the G. T. R.



Clydesdales, Percherons and Hackneys

I have still on hand 19 Clydesdale stallions, 4 Clydesdale fillies, all imported; Scotland and Canadian prizewinners; 3 years old, that will make 2100-lb. horses of choicest quality and richest breeding; 4 black Percheron stallions, 3 years old, big, flashy, quality horses, and 6 Hackney stallions, 1st-prize and championship horses among them. Will sell reasonable and on terms to suit.

DR. T. H. HASSARD, Millbrook P.O. and Stn.



GRAHAM BROS.

"Cairnbrogie," CLAREMONT,

IMPORTERS OF

HACKNEYS and CLYDESDALES

Established 30 years, and winners at all large shows in Canada and United States. Best of stock always on hand for sale. New importation of Royal winners just arrived.

40 WAVERLY HACKNEYS 40

Imported Stallions and Fillies.



Every one a high-class actor and a show animal. Splendidly-matched pairs and singles. Positively the highest class lot of Hackneys to be found on any one farm in America. All ages. Also 4 imported Clydesdale fillies. A big flashy lot, full of style and quality.

ROBERT BEITH,
Bowmanville P. O. and Station.
Long-distance 'Phone.

W. C. KIDD, LISTOWEL, ONT.

Importer of Clydesdales, Shires, Percherons, Belgians, Hackneys, Standard-breds and Thoroughbreds

of highest possible quality and richest breeding. Have sold as many stallions the last year as any man in the business, with complete satisfaction in every case. I have always a large number of high-class horses on hand. My motto: "None but the best, and a straight deal." Will be pleased to hear from any one wanting a rare good one. Terms to suit. Long-distance 'phone. LISTOWEL P.O. AND STATION.

SMITH & RICHARDSON, COLUMBUS, ONT.,



have now on hand a choice selection of Clydesdale Stallions, combining size and quality with straight, true action. Breeding unsurpassed. Individuality unexcelled. Scotland prizewinners. Also a few Canadian-bred stallions, and imp. and Canadian-bred fillies.

Long-distance 'Phone Myrtle Station, C. P. R. Brooklyn or Ottawa, G. T. R.

Clydesdale Stallions!

I have on hand for sale another choice lot of Clydesdale stallions, newly imported, ranging in age from two to six, with plenty of size, style and good true action. Also one first-class Hackney. **Wm. Colquhoun, Mitchell, Ont.**
'Phone to residence.



Graham & Renfrew's CLYDESDALES and HACKNEYS

Our Clydes now on hand are all prizewinners, their breeding is glittered. Our Hackneys, both stallions and mares, are an exceedingly high-class lot. We also have a few high-steppers and carriage horses. Yonge Street cars pass the door every hour. 'Phone North 4488.

GRAHAM & RENFREW, BEDFORD PARK, ONT.

GOSSIP.

Messrs. Mac Campbell & Sons, Harwich, Ont., write: "We have had a very prosperous year with our Duroc-Jersey hogs; have sold everything we could spare, and refused several orders. Our George D. Campbell is at present visiting some of the leading herds of the United States, in search of some of their best boars, and sows in farrow."

Mr. W. H. Simmons, New Durham, Ont., writes: "Among my sales of Holsteins, since January 1st, 1907, are the following: To Mr. William Slaughter, Beaton, Ont., three grand cows; Jemima Cubanna gave, in official test, '65 lbs. of milk in one day, and 62 lbs. average for fourteen days; Lizzie Pietertje De Kol, 19.50 lbs. butter in seven days; Little Katie Kent 3rd, also an excellent R. of M. cow. The sires of these cows are also in R. of M. To Mr. R. W. Walker, Utica, Ont., a grand show bull, to head his fine herd of pure-breds. This bull's dam is imported, and gave 59 lbs. of milk in one day. Our stock bull, Isoco Mechthilde, went to Mr. M. B. Traves, Latimer, Ont. He won first prize at Toronto, 1905. His dam and two sisters averaged 20.50 lbs. of butter in seven days. To Wm. T. Bell, Willetsholme, a bull calf, whose dam is in R. of M. This is the second bull that Mr. Bell has purchased from this herd. A son of Lizzie Pietertje De Kol (official record 15.50 lbs. in seven days) went to H. A. Lester, Burford, Ont. A bull calf to A. Cornell; his dam gave, in official test, 62 lbs. of milk in one day in official test from three teats. His grandsire is a brother to Aitje Posh, 27 lbs. of butter in seven days, world's champion for age; also Mercena 3rd, 27.65 lbs. of butter in seven days, 113 lbs. in 30 days. These three bulls were sired by Prince Pauline De Kol 4th, third-prize bull at Toronto, and second at London, 1905. He has ten sisters in R. of M., and his dam has ten sisters in A. R., with records as high as 24 lbs. of butter in one week. An imported bull went to Mr. Albert Wells, Teviotdale, Ont.; a son of the second-prize yearling heifer at Toronto to Mr. John H. Tuttle, Oriel, Ont. His dam is sister to Liola, the champion heifer in Canada last year under three and a half years; a son of the first-prize bull at London to Mr. Wallace Tuttle. This bull's dam is full sister to the dam of the first-prize bull calf at London, 1904. Tidy Abbekerk Mercena Posch, now at the head of the herd, is the richest butter-bred bull calf in Canada, and unsurpassed in America; three nearest dams averaged 26.64 lbs. butter in seven days, three nearest dams' dam's sisters and grandsire's full sister averaged 27.66 lbs. butter in seven days."

QUESTIONS AND ANSWERS. Veterinary.

MISCELLANEOUS.

1. Give treatment for diarrhoea in a horse.
 2. Where can Angora goats be purchased, and on what kind of land will they thrive best? Where can their hair be sold?
 3. Can a bitch 5 years old be spayed without danger?
 4. At what age should Angora goats be castrated? G. R.
- Ans.—1. Remove the cause. If due to an irritant in the intestines, give a pint of raw linseed oil and follow up with astringents as 2 ozs. tincture of opium, 4 drams each of catechu and prepared chalk in a pint of cold water as a drench every four hours until diarrhoea ceases. If the case be acute and the horse becoming weak, omit the oil and commence with the astringents at once.
2. I do not know where they can be purchased or where there is a market for the hair. Probably some readers of this journal may have them for sale. They, like other goats, will thrive best on high, dry land.
3. There is always danger of untoward results following this operation. The danger is greater in a five-year-old than in a younger animal, at the same time the risk is not great if the operation be skillfully performed.
4. From 2 to 4 weeks old.

HORSE OWNERS! USE



CAUSTIC BALSAM.

A safe, speedy and positive cure. The safest, Best BLISTER ever used. Removes all bunches from Horses. Impossible to produce scurf or blemish. Send for circulars. Special advice free.

THE LAWRENCE-WILLIAMS CO., Toronto, Canada



ABSORBINE

will reduce inflamed, swollen Joints, Bruises, Soft Bunches, Cure Boils, Fistula, or any unhealthy sore quickly; pleasant to use: does not blister under bandage or remove the hair, and you can work the horse. \$2.00 per bottle, express prepaid. Book 7-C free.

W. F. Young, P. D. F., 73 Monmouth St., Springfield, Mass. Canadian Agents, Lyman, Sons & Co., Montreal.

Imp. Clydesdale Fillies!



Have now on hand about a dozen, nearly all imported. A high-class lot and very richly bred. Combine size and quality, and all in foal. Also one-year-old stallions. Write me, or come and see them.

Nelson Wagg, Clarendon P.O. Ont.

Imported Clydesdales



Two 4-year-old and two 3-year-old stallions; one 3-year-old and two 1-year-old fillies; positively the best bunch I ever imported; richly bred, full of quality, abundance of size, and nice, true actors. Will sell them right. Terms to suit.

Telephone con. Geo. S. Stewart, Hawick, Que.

For Sale: A Registered Clydesdale Stallion First-class, coming 3 years. Color, rich brown; small stripe and little white on the feet. Sired by Imp. Pioneer (11181) (8374), of Darnley breeding. Dam out of the imp. prizewinner, Outman Lass (1918), and granddaughter of old Prince of Wales (673), sired by imp. Queen's Own (7176) (1708), winner of several gold medals in Canada. A promising colt, of the very choicest combination of breeding, with near ancestors leading winners in keenest competitions. Price very moderate for quick sale. **JOHN CAMPBELL, Fairview Farm, Woodville, Ont.**

SHETLAND PONIES!

P. McCullough & Son, Breeders and importers of Shetland ponies, Markdale, Ont. We showed 8 ponies at Toronto Exhibition in 1906, and got 8 prizes: 3 firsts, 4 seconds and 1 third. All our ponies are imported. Our stallion, Foxglove, took first prize at Toronto. Our mare, Bessie, took first prize, and their foal, Bruce, took first prize also. Good accommodation for mares sent from a distance to breed. Ponies for sale. Our address: Markdale P. O., Ont.

FOR SALE!

Hackney Stallion, Calvin

A. H. S. B. 306,

By the champion Matchless of Lonsdale, and out of champion mare, Dagmar, by Denmark. For particulars address: **SHELBURNE FARM, Shelburne, Vt., U. S. A.**

FOR SALE: Two imported

CLYDESDALE STALLIONS

Six years old. Big strong fellows, with good breeding and sure foot getters; also an imported Hackney stallion, 5 years. These horses will be sold at living prices.

R. REID & CO., Hintonburg, Ont. (near Ottawa).

REGISTERED CLYDESDALES for sale.

One four-year-old, one three-year-old, and two two-year-old stallions, and one three-year mare. All bred from first-class imported stock, with good style and action. Prices reasonable. **McDougal Bros., Tateshurst, Que.**

For Sale REGISTERED CLYDESDALE STALLION, Wild

America (4188); foaled June 10th, 1908. Full particulars will be given upon writing to **A. GRADY, CASTLEMORE, ONT.**

CLYDESDALES and Shorthorns—Four Imp. Clyde mares, 2 and 3 years old, bred in the purple—two of them in foal. One filly, rising 1 year, sired by the great Macqueen—registered. Three Shorthorn bulls from 8 to 12 months Scotch. A few heifers. All sired by Scotland's Fame=47897=, by Nonpareil Archer (Imp.) **John Fergie, Clarendon P. O. and Station.**

CLYDESDALES and SHORTHORNS—Canadian-bred, registered. One stallion, rising 3, by Imp. Macqueen. Two stallions, rising two, by Imp. Primrose. One filly, rising 2, by Imp. Macqueen. A choice lot. Show stuff. Also stock bull, Gilbert Logan 36424; roan; 7 years old. Safe and sure. **W. D. PUGH, Clarendon P. O. and Station.**

FARMER'S ADVOCATE "Want and For Sale" Ads. bring good results. Send in your ads. and you will soon know all about it. **The Wm. Weld Co., Ltd., London, Ont.**



MITHS-OVARY-TONIC MAKES HENS LAY

Your hens will lay all the year round, if you will give them Smith's Ovary Tonic once a week.

One teaspoonful to four fowls keeps hens healthy—strengthens and invigorates the egg-producing organs—and renews wasted tissue due to prolific laying.

Only 25c. and 50c. a bottle. Sold by druggists, grocers, etc.

NATIONAL DRUG & CHEMICAL CO., LIMITED, MONTREAL.



Unreserved Sale of Rawlinson Bros. Hackneys.

In consequence of MESSRS. RAWLINSON BROS. having sold their ranch, and who are leaving the country, their entire stock of highly-bred pedigree Hackneys must be disposed of, and will be sold by auction in JULY next, at the ranch, 11 miles west of Calgary. The pedigree Hackneys consist of 3 IMPORTED STALLIONS, 8 HOME-BRED STALLIONS, 48 BROOD MARES, 12 FOUR-YEAR-OLD FILLIES, 9 THREE-YEAR-OLD FILLIES, 8 TWO-YEAR-OLD FILLIES, 12 YEARLING FILLIES, ALSO 97 HEAD OF UNREGISTERED MARES, FILLIES AND GELDINGS. Nearly all the best mares the champion Robin Adair ever got in this stud are included in this sale, together with the full sisters to Baxon, Priscilla and Minona, who won everything in sight at all the eastern shows, including the championships of both sexes at the St. Louis World's Fair. It is the greatest collection of high-class Hackneys that is ever likely to be offered again in Canada for many years. Catalogues of sale will be ready for distribution on June 1st, 1907, and may be obtained from

Jordison Bros., Auctioneers, P. O. Box 1172, Calgary, Alta.



Buy at First Hand

Deal with us direct and secure handsome, well-made, latest style carriages and high-grade harness at first cost. Dealers' profits cut off.

No. 10 Piano Box Buggy
Price \$57.00.

Our catalogue will help you to choose from the biggest and fullest assortment of vehicles and harness. It accurately pictures and describes all the many styles, gives prices and fully explains our method of selling direct. Mailed free.

International Carriage Co.,
BRIGHTON, ONTARIO.

Clydesdale Horse Ass'n of Canada

Application forms, transfer blanks, etc., for registration, can be obtained by addressing **Accountant, National Live-Stock Records, Department of Agriculture, Ottawa.** Send applications for registration to the above address. Letters to the above will pass free of postage by placing the letters O. H. M. S. in place of postage stamp. All breeders are recommended to attend to registration matters early, as information and evidence are more difficult to obtain as time passes. Address all other correspondence to

J. W. SANGSTER, Secretary, Temple Building, Toronto.



Tudhope Carriages

It's a mighty comfortable feeling to know that the carriage you buy has a 50 years reputation behind it.

There's no likelihood of there being any cause for complaint against a Tudhope Carriage.

But if there should be, you have the guarantee of a firm that has been in business, right here in Canada, since 1855.

TUDHOPE No. 3

A great favorite all over Canada. Light—easy running—with rubber tires if desired. Gear, wheels and shafts best hickory. Complete with lined rubber apron, wrenches, quick shifters and 2 sets of washers. Detailed description in our free illustrated catalogue. Write for it.

THE TUDHOPE CARRIAGE CO., Ltd. ORILLIA, Ont.

NOTICE!

A special meeting of the **CLYDESDALE HORSE ASSOCIATION OF CANADA** is called to discuss the following amendment to the rules governing the registration of imported Clydesdales: "That all imported Clydesdale stallions and mares, by sire and by dam both recorded in the Clydesdale Studbook of Great Britain and Ireland, and whose sire and dam are also recorded and bearing registration numbers, be accepted for registration in the Clydesdale Studbook, and that this action shall come into force on the first day of June, 1907." The meeting to be held at the **King Edward Hotel, at 2 o'clock, May 23rd, 1907.** The attendance of all members is respectfully solicited.

J. W. SANGSTER, Sec.-Treas. Clydesdale Horse Association, Temple Building, TORONTO.

When Writing Please Mention Advocate

QUESTIONS AND ANSWERS. Veterinary.

RHEUMATISM.

Horse has rheumatism in breast and fore legs. What is best to do? F. H.

Ans.—Keep dry and comfortable and give 2 drams salicylic acid 3 times daily. Bathe the affected parts 3 or 4 times daily with hot water, and after bathing rub well with liniment made of 4 ozs. alcohol, 1 oz. oil of turpentine, 4 drams camphor, and water to make a pint. V.

WARTS.

Enclosed you will find a wart that I removed from the eyelid of colt. There are two or three more not quite so large. What will cure them? I took three similar ones out a year ago. C. E.

Ans.—The practice you are following, viz., removing the warts by dissection, is the proper practice. They can be removed by applying a caustic, as butter of antimony, daily, but it is a slow process. Some animals are predisposed to epithelial growths like this, and the predisposition cannot be removed. All that can be done is to treat the growths as they appear. V.

FOREIGN MATTER IN NOSTRILS

Last Saturday a yearling heifer was not well. On Sunday morning she breathed very heavily. She began to cough, and the enclosed substance was expelled from her nostril. What is it? S. T. T.

Ans.—The substance enclosed in letter is animal tissue. It was an abnormal growth in the nostril. It is not possible to state what caused it. Such growths are liable to appear either on the skin or mucous membranes. It caused sufficient irritation to affect breathing and cause coughing. The convulsive efforts of coughing dislodged it, and it escaped through the nostrils. If no more growths of a similar nature are present, your heifer will have no further trouble. V.

BRAIN TROUBLE—VETERINARY WORKS.

1. Three-weeks-old calf, nursing cow, stiffened and fell over. Got its head back as far as possible.

2. What is the very best veterinary work that can be got? W. A. B.

Ans.—1. This may not occur again. It was due to some pressure upon the brain, which may have been simply congestion of the blood vessels. If it is due to a growth upon the brain, the attacks will continue, and eventually will kill him. Nothing can be done.

2. Probably the best are Williams, in two volumes, viz., "The Principles and Practice of Veterinary Medicine" and "The Principles and Practice of Veterinary Surgery," by Williams. They cost about \$7 per volume, and can be purchased from any dealers in veterinary works. Of course, there are many works that cost much less money, but you asked for the very best. V.

RINGBONE—LAMPAS.

1. Filly, now four years old, was lame when a yearling. It left an enlargement like a ringbone on near hind ankle, larger on sides than in front. She was not lame since then until two months ago, when she went lame again. The lameness decreases slightly on exercise, but is bad again after standing. The enlargement has increased some. I got a sweat blister and applied it, but the leg swelled, and she is still lame.

2. What causes lampas in horses, and how should it be treated? W. W.

Ans.—1. This is undoubtedly ringbone. The swelling of the leg is a natural result of the blister, and will disappear. Blistering will not likely do any good. It is usually a waste of time and money, except in very young animals. Get your veterinarian to fire, and then blister it, and give her at least two months' rest, and be satisfied if the lameness disappears in six to eight months afterwards.

2. Lampas is simply a congestion of the gums from irritation of feeding. Horses over five years old are not troubled. Treatment consists in steady feeding just posterior to the teeth. The bleeding will relieve the congestion. Do not cut further back than the second bar, else dangerous bleeding may result. V.

IF WOMEN ONLY KNEW

Thousands of women suffer untold misery every day with aching backs that really have no business to ache. A woman's back wasn't made to ache. Under ordinary conditions it ought to be strong and ready to help her bear the burdens of life.

It is hard to do housework with an aching back. Hours of misery at leisure or at work. If women only knew the cause. Backache comes from sick kidneys, and what a lot of trouble sick kidneys cause in the world.

But they can't help it. If more work is put on them than they can stand it's not to be wondered that they get out of order. Backache is simply their cry for help.

DOAN'S KIDNEY PILLS

will help you. They're helping sick, overworked kidneys—all over the world—making them strong, healthy and vigorous. Mrs. P. Ryan, Douglas, Ont., writes: "For over five months I was troubled with lame back and was unable to move without help. I tried all kinds of plasters and liniments but they were no use. At last I heard tell of Doan's Kidney Pills and after I had used three-quarters of the box my back was as strong and well as ever."

Price 50 cents per box or three boxes for \$1.25, all dealers or The Doan Kidney Pill Co., Toronto, Ont.

Lost Strayed or Stolen—One Cow

That is about what happens each year for the man who owns five cows and does not use a Tubular cream separator. He loses in cream more than the price of a good cow. The more cows the price of the greater the loss. This is a fact on which Agricultural Colleges, Dairy Experts and the best Dairymen all agree, and so do you if you use a Tubular. If not, it's high time you



did. You can't afford to lose the price of one or more cows each year—there's no reason why you should. Get a Tubular and get more and better cream out of the milk; save time and labor and have warm sweet skimmed milk for the calves. Don't buy some cheap rattle-trap thing called a separator; that won't do any good. You need a real skimmer that does perfect work, skims clean, thick or thin, hot or cold; runs easy; simple in construction; easily understood. That's the Tubular and there is but one Tubular, the Sharples Tubular. Don't you want our little book "Business Dairymen" and our Catalog A.193 both free? A postal will bring them.

The Sharples Separator Co.
West Chester, Pa.
Toronto, Can. Chicago, Ill.

FOR SALE: \$250 will buy the Champion Carriage Stallion OF CANADA.

Sure and kind. Reasons for selling: Disabled by accident.

E. W. BROOKS, Glen Ross, Ontario

READ THIS! We are offering a dark red Durham bull 14 months old, weighing 1,000 lbs., for \$75. A two-year-old bull, light roan, heavy boned, extra good getter, \$85. Females equally cheap. W. R. BOWMAN, Mt. Forest, Ontario

Amatite

INSTEAD OF SHINGLES



In the last few years the price of lumber has more than doubled in cost. Before the increase the price was higher than the average farmer could pay. The use of shingles, therefore, has been growing less and less, and the progressive farmer has been using Amatite instead.

What is Amatite? It is the mineral surfaced roofing that costs less and wears longer than the "Paint-me every-two-years-or-leak" kind.

It's waterproof, weather-proof, stormproof. It's the one with a real mineral surface

that makes painting and coating entirely unnecessary. Any one can lay it by simply following the directions which go with every roll. We send along enough nails and cement for laps to complete the job.

FREE SAMPLE

To any one interested we will send, upon request, a Sample and illustrated Booklet telling all about Amatite. We want you to see how good this roofing really is. Write to-day and keep up with the times.

BARRETT MANUFACTURING CO., New York, Chicago, Cleveland, Allegheny, Kansas City, St. Louis, Boston, Minneapolis, Philadelphia, New Orleans, Cincinnati, London (Eng.)

PATERSON MANUFACTURING CO., Limited, Canadian Agents, Toronto and Montreal.

A Remarkable Invention FOR THE CULTURE OF HAIR.



THE EVANS VACUUM CAP is a practical invention constructed on scientific and hygienic principles, by the simple means of which a free and normal circulation is restored throughout the scalp. The minute blood vessels are gently stimulated to activity, thus allowing the food supply which can only be derived from the blood, to be carried to the hair roots, the effects of which are quickly seen in a healthy, vigorous growth of hair. There is no rubbing, and as no drugs or chemicals of whatsoever kind are employed, there is nothing to cause irritation. It is only necessary to wear the Cap three or four minutes daily.

60 DAYS' FREE TRIAL!
The Company's Guarantee.

An **EVANS VACUUM CAP** will be sent you for sixty days' free trial. If you do not see a gradual development of a new growth of hair, and are not convinced that the Cap will completely restore your hair, you are at liberty to return the Cap, with no expense whatever to yourself. It is requested, as an evidence of good faith, that the price of the Cap be deposited with the Chancery Lane Safe Deposit Company of London, the largest financial and business institution of the kind in the world, who will issue a receipt guaranteeing that the money will be returned in full, on demand, without questions or comment, at any time during the trial period.

The eminent Dr. I. N. LOVE, in his address to the Medical Board on the subject of Alopecia (loss of hair) stated that if a means could be devised to bring nutrition to the hair follicles (hair roots), without resorting to any irritating process, the problem of hair growth would be solved. Later on, when the **EVANS VACUUM CAP** was submitted to him for inspection, he remarked that the Cap would fulfill and confirm in practice the observations he had previously made before the Medical Board.

Dr. W. MOORE, referring to the invention, says that the principle upon which the Evans Vacuum Cap is founded is absolutely correct and indisputable.

An illustrated and descriptive book of the Evans Vacuum Cap will be sent, post free, on application.

THE SECRETARY, EVANS VACUUM CAP CO., LTD.,
REGENT HOUSE, Regent St., London, Eng.

When Writing Advertisers Please Mention this Paper.

QUESTIONS AND ANSWERS.
Miscellaneous.

RAILWAY FREIGHT CHARGES.

I shipped a car of sixteen head of registered Shorthorns from T_____ to W_____. The _____ Railway received them at the reduced fare (one-half) for registered stock, and agreed to deliver them at W_____. I paid the freight to W_____ at the _____ Railway freight office in L_____. The connecting railway refused to move this car over their line until I paid the balance of the full car rate to them over both lines. This, after I had paid the freight the _____ R. asked for the whole distance. The _____ R. took the shipping vouchers for the sixteen head. Now, can I recover the extra money other railway received?

Ontario.

Ans.—We think so.

FEEDING VALUE OF MOLASSES

Kindly let me know the value of molasses in feeding growing calves, or in fitting cattle for the shows. In what proportions would you mix molasses, corn, oats, bran and oil cake, or is there anything better?

OLD SUBSCRIBER.

Ans.—Molasses is a purely fattening food, but it tends to improve the coat and to give the animal a general thrifty appearance. When animals learn to eat it, they generally become very fond of it, and will eat more of other food in consequence. Unless the growing calves are being fitted for show, I do not think it would pay to feed molasses. Plenty of whole milk, combined with a ration made up of about equal parts by weight of corn, oats and bran, with a very small proportion of oil cake added, will be found satisfactory for these growing calves. As to the oil cake, a very small amount should be used at first, say a small handful at a feed twice a day. As the calves become accustomed to it, the quantity may be increased, but I do not think it would be wise to exceed one or two pounds of oil cake per day with calves under twelve months old—the younger the calves, the smaller the amount. The same meal ration will answer very well for cattle that are being fitted for show, but the proportion of oil cake should be increased, though I doubt the wisdom of feeding more than from three to four pounds of oil cake per day to an animal. As to the molasses, it should be used somewhat sparingly, as it is a somewhat expensive food, but I do not think a quart of molasses a day would do an animal any harm, provided it is thought advisable to feed so much as this. For reasons of economy, however, I think it would be better to feed a smaller proportion, and possibly just as good results would be obtained. G. E. DAY.

TRADE TOPIC.

AN IMPROVED GASOLINE ENGINE.
Those who consider that gasoline engines are the ideal farm power, as well as many who have been dubious concerning them, are sure to be interested in the "New-Way" model. A member of "The Farmer's Advocate" staff had the privilege recently of inspecting one of this make running in a shop in London, Ont., where a local agency is being established by general agent, E. S. Cooper, and was impressed with its compactness, its lightness combined with strength, its simplicity, and evident smoothness of running, and its air-cooling device instead of the accustomed water tank. This is claimed to be the first engine to cool its cylinder by means of air. The plan is very simple. A revolving fan on one side forces a current of air through a perforated iron casing, enclosing the cylinder, and we are assured that in the hottest weather the cylinder is kept quite cool. One advantage of doing away with the water tank is a great saving in weight, an important point in a portable farm power. The 6-7 h.-p. twin cylinder New-Way weighs only 700 pounds. Another point is that the two opposed cylinders give constant speed and quick recovery under a load. On another page will be found an advertisement of this engine, which is handled in Canada by the New-Way Motor Co., Brighton, Ont. Write for free illustrated booklet; you will be certainly interested.

An Infallible Cure

For Sprains, Ringbone, Splint, Curb, Swelley, Lameness and Soft Bunches, Kendall's Spavin Cure has no equal.

MONTRÉAL, P. Q., Sept. 12, '06.
"I have the care of a number of horses and have used your remedies, which always proved infallible." *D. Baillergeron.*
Be prepared—keep Kendall's always in the stable. Our book "Treatise on the Horse" free from dealers or

\$1 a bottle—6 for \$5.



Dr. E. J. Kendall Co.,
Keosauqua Falls,
Vermont,
U.S.A.

Lump Jaw

The first remedy to cure Lump Jaw was Fleming's Lump Jaw Cure and it remains today the standard treatment, with years of success back of it, known to be a cure and guaranteed to cure. Don't experiment with substitutes or imitations. Use it, no matter how old or bad the case or what else you may have tried—your money back if Fleming's Lump Jaw Cure ever fails. Our fair plan of selling, together with exhaustive information on Lump Jaw and its treatment, is given in Fleming's Vest-Pocket Veterinary Advisor. Most complete veterinary book ever printed to be given away. Durable bound, indexed and illustrated. Write us for a free copy.

FLEMING BROS., Chemists,
75 Church Street, Toronto, Ontario.

Put Good Grazers on Your Grass!



The **HEREFORDS** are the range cattle par excellence. They grow near the ground. They make flesh rapidly and easily, and they will make money for you. Over 100 head of breeding stock of the most approved strains on hand at low prices.

A. S. HUNTER, DURHAM, ONTARIO.

Sunnyside Herefords



Present offering: 10 bulls, serviceable ages; 4 of them over 2 years; big, strong, happy fellows; ready for heavy service or rough usage on the ranch; also breeding cows at prices that will move them. Must make room for this year's crop of calves. Come and see them, or write and tell me what you want. **ARTHUR F. O'NEIL, Maple Grove, Ont., Middlesex Co.**

Broxwood Herefords

Cows, heifers and calves
For Sale.

R. J. PENHALL, Nover, Ont.

FOREST VIEW FARM HEREFORDS

Four bulls from 8 to 18 months old; prize-winners and from prizewinning stock. Several heifers bred on the same lines; choice individuals for sale. **JOHN A. COVERLACK,** Forest Sta. and P.O.

HEREFORDS

We are now offering a few thick, smooth young bulls and a number of females—a low-down, even, beefy lot. If in want of something extra good, correspond with us. We can please you. **J. A. LOYBING, Coldwater P.O. and St.**

Fairview Herd Holsteins

Home of Pontiac Rag Apple, the cow that sold a few days ago for \$8,000. Highest price ever paid for an A. E. O. cow. I have her sire, Pontiac Korndyke, the greatest living sire of the breed, and also over 40 of his daughters, sisters to the one that brought the top price, and they are all good ones. Also bull calves by the best sires in the States. Write me, or come and look the herd over. Only seven miles from Prescott, Ont. **E. H. DOLLAR, Heuvelton, St. Lawrence County, N. Y.**

Saskatchewan

Wheat land. Easy terms.
\$10.00 to \$35.00 per acre.
Money making. City property.

The Minton Mansell Co., SASKATOON.

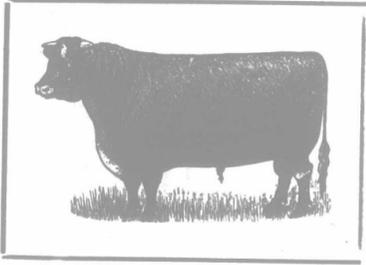
Messrs. R. Reid & Co., Hintonburg, Ont., near Ottawa, write: "Am offering for sale two grand six-year-old imported Clydesdale stallions, good foal-getters, having travelled on same route for three years, and taken well with the public; also a fine Hackney stallion, five years old. These horses have all been winners wherever shown."

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35 Head Imp. Scotch Shorthorns BY AUCTION

At his farm, "Hollymount,"
3½ miles north of Mitchell,
Ontario, on

Thursday, May 9th '07



Mr. W. J. Thompson will sell his entire herd of 35 head of Scotch Shorthorn cattle, including the stock bull, Imp. Rustic Chief, a roan 6-year-old son of Clan Alpine. Sixteen of the cows are imported, the balance sons and daughters of theirs, all got by Rustic Chief. Nearly all the cows have calves at foot, the balance heavy in calf. All are in splendid condition, of modern type and richest breeding. See Gossip.

TERMS—Six months' credit on bankable paper, 5 per cent. per annum off for cash.

Conveyances will meet all morning trains at Mitchell.

CAPT. T. E. ROBSON | Auctioneers. Catalogues on application.
JAMES JONES

W. J. THOMPSON, Prop., Mitchell, Ont.

Glenora Shorthorns and Lincolns

Imp. Marr Boan Ladies, Missies, Miss Rainedns and Uys. Strictly high-class in quality and breeding. Winners at Canada's leading fairs. Five grand young bulls, from 9 to 12 months old. Two from great milking dams (over 50 lbs. per day). Prices right. Come and see them and you will buy. One hundred head of Dudding bred Lincolns. Grand crop of lambs from imp. sires and dams.

A. D. MCGUGAN, Rodney, Ont.

DOMINION SHORTHORN HERDBOOK WANTED.

The Dominion Shorthorn Breeders' Association will pay \$1 each for the following volumes of their herdbooks: Volumes 8, 9, 12, 13, 14, 15, 16, 17 and 19. Parties having these volumes to part with, write for wrappers and mailing instructions to

W. G. Pettit, Sec.-Treas., Freeman, Ont.

Pleasant Valley Shorthorns

Herd headed by Imp. Ben Lomond—4160—, assisted by Bud's Emblem, 2nd-prize senior bull at Toronto, 1906, son of Old Lancaster 60'68. Correspondence solicited. Inspection invited.

Geo. AMOS & SON, Moffat St. & P.O., C.P.R. Farm 11 miles east of City of Guelph.

John Gardhouse & Sons—Importers and breeders of Scotch Shorthorn cattle, Shire and Clydesdale horses and Lincoln sheep. Just now we are offering a few extra choice heifers—show stuff among them; also three rare good young bulls, bred from imp. sire and dam. Highfield P. O., Weston station 3½ miles. Telephone.

Spring Valley Shorthorns

Bulls in service are: Dapton Chancellor (imp.) = 40359 = (78286), Clipper Chief (imp.) = 64220 =. Stock for sale at all times.

KYLE BROS., Ayr, Ontario

Shorthorns for Sale—Five choice bulls, all from imp. sire, and three of them from imp. dams; also females of all ages. Scotland's Fame (imp.) at head of herd.

ALEX. BURNS, Rockwood P.O. and G.T.R. Sta.

Advertise in The Farmer's Advocate and Get Good Results



SHORTHORNS

Just closed out the season's crop of bulls of breeding age, but have a few very nice youngsters coming up. Anyone wishing a stock bull from the noted Derby imp. send orders ahead, as they are all picked up as soon as ready. W. J. SHEAN & SON, Box 856, Owen Sound, Ontario.

A. EDWARD MEYER

Box 378, Guelph, Ont., Offers for sale, at prices you can stand, young SHORTHORN BULLS

Four of them from imported sire and dams. Several cows with heifer calves at foot by imp. Scottish Hero, and a few yearling heifers. All are of the choicest Scotch breeding. Write, or better come and look them over. Long-distance 'phone in house.

MAPLE GROVE SHORTHORNS

My present offering consists of imported and home-bred cows and heifers, also four young bulls bred by Lord Banff's Conqueror. He is one of the best stock bulls of his breed. Terms and prices to suit the times. C. D. WAGAR Enterprise Stn. & P. O. Addington Co.

Queenston Heights Shorthorns

Show animals in yearling and two-year-old bulls, also bull and heifer calves. Young cows and heifers at very reasonable prices. Canadian and American registration.

Hudson Usher, Queenston, Ontario.

Shorthorns and Clydesdales

I am now offering 6 young bulls from 8 to 20 months old, all Scotch bred, two of them from extra good milking families, and a few registered fillies of good quality.

JOHN MILLER, Brougham, Ont. Claremont Sta., C.P.R.; Pickering, G.T.R.

SHORTHORNS, YORKSHIRES and S.-C. WHITE LEGHORNS.—I have sold all my young bulls advertised, but can offer straight Scotch bred heifers of the noted 82000 bull, Joy (M. 2000 imp.) = 32070 =, and young cows bred to him. Also choice Yorks bred 5 months old, in pair and dam. Legs of legs supplied at 25¢ per lb. Geo. D. Fletcher, Binkham, Ont., Erin Station, C. M. W.

QUESTIONS AND ANSWERS. Miscellaneous.

RAPE WITH OATS—SEEDS PER ACRE—SPRING-SOWN CROP FOR HAY—DRILLING VS. BROADCASTING.

1. Is it a good thing to sow rape with oats for fall pasturage? How much to an acre to sow? Is rape good for hogs 4 months old?
2. How much clover and timothy would you sow to the acre? I have been sowing about 3 lbs. clover and 4 timothy, and seemed to have very good catches. What do you think about it?
3. What is a good thing to sow on a field that has been seeded down and did not catch, in order to get a crop of feed for cows in the winter? The land is rather poor.
4. What do you think of the Owego and White Jewel oats for seed?
5. Which would you prefer, sowing oats broadcast or with drill, and how much to the acre would you sow?

E. B.

Ans.—1. Whether the sowing of rape in oats, with a view to furnishing fall pasturage, is advisable or not, is a debatable question. Usually it will furnish a fair amount of excellent grazing, but on rich land, or in a moist season, it grows rank and gets bound into the butts of the sheaves, causing more or less trouble in curing the grain crop. As a general practice we would not advise sowing rape on spring grain, but would reserve the average of cereal crops for seeding to clover and grass. The amount of rape seed to be broadcasted on spring grain would be one to two pounds per acre. Rape makes an excellent pasture for hogs of all ages, though sometimes swine pasturing constantly in dense growth of wet rape are affected with an irritating skin disease from causes not perfectly understood.

2. The amount of clover and timothy seed necessary for a good catch depends on soil and season. For most parts of the country we recommend 6 to 8 lbs. red clover, 2 lbs. alsike and 4 lbs. timothy per acre. Three pounds of clover is altogether too little, though it might give a fair stand in some seasons. It is far better for the land and more profitable to the feeder to grow clover than timothy; therefore, in seeding use as much clover seed as if no timothy were sown at all. Then if the conditions are favorable for clover, little timothy will appear in the first season's crop. The four pounds of timothy are added to the clover as a precaution, so that if the clover fails there will be some hay crop to fall back upon. The timothy comes in useful, also, in thickening the stand in the second year.

3. Three bushels per acre of a mixture of equal parts peas and oats, to be cut in the early ripening stage, is perhaps as good as anything. It might in this case be advisable to top-dress lightly with manure, sow only six pecks of grain mixture per acre, and seed down. The sooner such land can be laid down to meadow the better.

4. We have no knowledge of either of the varieties of oats mentioned, but doubt very much whether they possess any merits that would place them ahead of Siberian, American Banner or Joannette (the latter variety is not a very strong grower, but is excellent for rich land).

5. Oats broadcasted and well covered will give almost or quite as good results as drilled oats in a moist season, but in dry weather the chances for even germination and strong growth are rather with the drilled grain. The amount of seed per acre depends somewhat on soil and locality. In the Maritime Provinces four, five and even six bushels per acre are sometimes sown. For average Ontario conditions we recommend two bushels per acre when not seeding down, or six pecks when grass and clover seeds are sown with the grain. This sowing of grain gives the grass seeding a much better chance.

Veterinary.

UMBILICUS WILL NOT HEAL.

Bull calf has large umbilical cord. I cut it off, but it will not heal. J. M. W. Ans.—Dress the cord three times daily with carbolic acid. Keep water 20 parts.



PILES CURED.

ZAM-BUK SUCCEEDS WHEN ALL ELSE FAILS.

To get relief from the agony of piles, just take this simple course. Apply a little Zam-Buk, either with the hand direct or on a clean warm lint, to the piles. If internal, make a small wad of clean old lint (not new linen or cotton, as these are likely to contain the chemicals used in bleaching, which are very harmful). Melt a little Zam-Buk, and thoroughly soak the wad, then apply to the part, anointing well with the balm. Do this just before retiring, and then lie on a fairly hard mattress. You will be amazed at the ease which follows. This course taken on a few consecutive nights, and a little attention paid to the bowels to prevent or remove constipation, will be found to cure.

Mr. Neil Devon, farmer of Webbwood, Ont., says: "I was bothered for eight years with piles, and nobody knows what I have suffered. I tried Zam-Buk, and the result was so pleasing that I secured a good supply. Now I am cured." Mrs. Elizabeth Taylor, of Greenwood Ave., Toronto, whose photo we reproduce above, says: "For four years I suffered acutely from bleeding piles, and spent an immense amount of money on 'remedies' and doctors' prescriptions, but got no ease. Zam-Buk was different to everything else I had tried, and it cured me. I am grateful for the cure, and as I have never had piles once since, I know the cure is permanent."

Zam-Buk cures cuts, burns, abrasions, pustules, scalp sores, itch, eczema, ulcers, boils, abscesses, blood poison, etc. All druggists and stores sell at 50c. a box, or post free from the Zam-Buk Co., Toronto, for price, 6 boxes for \$2. Send one-cent stamp for postage for free trial box.

SHORTHORNS

Six superior yearling bulls, some of them out of great milch cows; heifers of all ages. A lot of very big yearlings and a few heifer calves cheap.

CLYDESDALES

Two mares 5 years old, one an extra good one, and a pair of geldings 4 years old.

JAS. MCARTHUR, Gobles, Ont.

JOHN LEE & SONS, Highgate, Ont.

SHORTHORNS & LINCOLNS

The champion herd of Highgate and Essex counties. For Sale: 6 choice young bulls, 3 reds and 3 roans, of grand type and quality; also good selection of young cows and heifers. Visitors welcome.

Clover Lea Stock Farm SCOTCH SHORTHORNS

Superior breeding and individual excellence. For sale: Bulls and heifers—reds and roans; some from imp. sire and dam. Visitors meet at Ripley station, G. T. R.

R. H. REID, PINE RIVER, ONTARIO.

Shorthorn Bull—Prince of Stars = 49804 =. Rich roan. Sire Chief of Stars (imp.), dam by Blue Ribbon (imp.), g. dam Estelle (imp.). Kind, sure, a good handler. Will sell to avoid inbreeding. Look up this pedigree, and write H. M. VANDERLIP, Cainsville, Ont.

Shorthorns Stamford's English Ladies, Mildreds, Marthas, Nonpareils. 3 choice bulls 14 months old. 2 heifers 2 cows. Breeding unsurpassed. Canadian and American registration. F. W. EWING, Salem P. O., Elora Station.

When Writing Please Mention this Paper

Belmar Parc Shorthorns

WE think we have as great a lot of young show animals as has ever been on one farm in Canada. Our herd is large, the individuals are choice and of the richest Scotch breeding, and our prices are moderate. 15 young bulls, 25 heifers under three years. A splendid group of breeding and show matrons. Most in calf to the champion Marigold Sailor = 53258 = and the prizewinning Nonpareil Archer (imp.) = 45202 =. Pembroke is on the main line of the C. P. R. and the Canada Atlantic Division of the G. T. R. You can leave Toronto 11 a. m., arrive Pembroke 12.05 p. m., see the herd, and arrive Toronto next morning at 7.20. We prefer you to see the cattle, but if you can't spare the time we take special pride in filling mail orders satisfactorily.

John Douglas, Manager.

PETER WHITE, Pembroke, Ont.

R. A. & J. A. WATT

Offer at reduced prices two highly-bred red

SHORTHORN BULL CALVES

They are the last pair they have to offer, and are not the poorest of the great dozen they sold this winter. If you want them, come and see them at once.

Elora Station, G.T.R. & C.P.R.

Phone 42K.

SALEM, ONTARIO.

AT "MAPLE SHADE"

Our young bulls are the best that our herd has ever produced. We can furnish Cruickshank bulls of high quality to head the best herds, and some that should produce the best prime steers. We have a bull catalogue. Send for one.

JOHN DRYDEN & SON,

Brooklin, Ont.

Stations: Brooklin, G.T.R. Myrtle, C.P.R. Long-distance telephones.

Valley Home Shorthorns and Berkshires

Special offering at very low prices for immediate sale: Eight young bulls 10 to 15 months old, five cows from 3 to 5 years old, with calves at foot; four 2-year-old heifers in calf to Royal Diamond 2nd = 58459 =; also eight heifers one year old. The above are straight Scotch and a choice lot; and 10 young Berkshire sows, just bred to Myrtle's Prince (imp.) - 14133 -, and 30 young pigs of both sexes, from one to two months old. Visitors welcomed for personal inspection.

S. J. PEARSON, SON & COMPANY,

Meadowvale, Ontario

Stations: Meadowvale and Streetsville Jct., C.P.R.



Special Offering of Scotch SHORTHORN BULLS

9 just past two years old; 15 just over one year old; 7 just under one year old.

The best lot we ever had to offer in individuality and breeding, and prices are right. Catalogue.

John Clancy,

Manager.

H. CARGILL & SON,

Cargill, Ont.

SIX IMPORTED SHORTHORN BULLS

One bred by Duthie, one by Marr, and one by Durno. Show bulls and sires every one. Imported cows and heifers, home bred bulls and heifers, all of high-class. THREE IMPORTED CLYDESDALE MARES, all in foal. Shropshire and Cotswolds in large numbers. Will price anything I have at a living profit. Write me.

ROBERT MILLER,

STOUFFVILLE, ONTARIO.

Pure Scotch Shorthorns

19 Bulls. PRESENT OFFERING. 75 Cows and Heifers.

1 imported bull, 3 two-year-olds, and 15 yearlings and calves from 10 to 18 months old—all from imp. sires and choice dams. Cows and heifers all ages, including some show animals. 1 imp. Clydesdale mare four years old, due to foal May 1st. We will book orders for young Yorkshires for May delivery. W. G. Pettit & Sons, Freeman, Ont.

Burlington Jct. Station.

Long-distance Telephone.

WESTSIDE SHORTHORN HERD AND BORDER LEICESTER FLOCK.

All Registered in the Herd and Flock Books of Great Britain.

We invite all interested to inspect the cattle and sheep on this farm. The Shorthorns are long-tried families, tracing to the pioneer herds of Scotland through channels of repute. The Border Leicester flock is one of the oldest in Scotland, and embraces blood of the highest breeding. Selections for Sale. Visitors from the States and Canada will be cordially welcomed.

A. Cameron & Sons, Westside Farm, Brechin, Sootland.

FARM FOR SALE

115 acres of choice land, 3 miles from City of Brantford. This is one of the best farms in the county. Buildings and fences are all nearly new. First-class two-story brick house, 10 rooms; cattle barn, 40 x 64, with cement floors and mangers, with water basins to each stall; horse barn, 50 x 36, modern plan; pigery 28 x 50; implement shed, 54 x 28; never-failing well with new windmill that drives water to both house and barns; large orchard. Price, \$10,500. For further particulars apply to T. A. COX, Box 71, Brantford, Ont.

THE WILKINSON PLOUGH CO., Limited, Toronto, Canada:

GENTLEMEN,—Please send me (free) the book, "Practical Experience with Barn-yard Manures."

Name..... P.O.....

Province.....

Have you a Manure Spreader? Answer.....

QUESTIONS AND ANSWERS, Veterinary.

INDIGESTION.

After mare was put in stable last fall, she was troubled with griping spells, which lasted for a few minutes. I fed hay, bran and oats. Changed food to straw and corn on cob, which seemed to agree with her better. Changed back to hay, bran and oat chop, and the trouble reappeared. For the last week, she has had diarrhoea. H. V.

Ans.—Give her a pint of raw linseed oil. Follow up in about 18 hours with 2 ounces tincture of opium, 4 drams catechu and 4 drams prepared chalk, in a pint of cold water as a drench, every four hours, and add to her drinking water $\frac{1}{4}$ of its bulk of lime water until diarrhoea ceases. Give her 1 dram each of gentian, ginger, nux vomica and bicarbonate of soda, three times daily. Feed on the kind of food that appears to suit her best. She has congenitally weak digestive powers, and will need to be carefully fed and used. V.

NASAL GLEET—CONDITION POWDERS.

1. Young team has had distemper since last fall. They cough and discharge from the nostrils.
2. Give prescription for good condition powder.

NONAME.

Ans.—I. This is not distemper, but the result of neglected cases of either distemper or influenza. The horses are now affected with a chronic disease known as nasal gleet, which is very hard to treat. Take 6 ozs. each of sulphate of iron and sulphate of copper and 4 ozs. iodide of potassium, mix and make into 48 powders. Give each horse a powder in damp food twice daily. It will probably be necessary to repeat the prescription, as recovery is usually very slow.

2. Healthy animals should not be given condition powders or other drugs. When animals are not healthy the medicines to be given are indicated by circumstances. The idea that all animals should be given medicines in the spring or at any other season is radically wrong. A good general tonic is equal parts by weight of sulphate of iron, gentian, ginger, nux vomica and bicarbonate of soda. Dose, a tablespoonful two or three times daily. V.

SWOLLEN LEG, ETC.

1. Mare is not doing well. She had scratches, but I treated them successfully. One hind leg is swollen, but not sore. She is fed on hay, oats and bran, and does no work except a little driving occasionally.

2. Cow is due to calve this month. Advise treatment. G. F. R.

Ans.—1. Have her teeth dressed. Give a purgative of 8 drams aloes and 2 drams ginger. Follow up with 1 dram iodide of potassium twice daily for two weeks. Feed lightly on grain, and give regular exercise. Hand rub the swollen leg frequently, and bandage for three or four hours after driving.

2. Keep in moderate condition. See that she gets regular exercise. Provide a comfortable stall for her. See that she does not eat the afterbirth, and if it is not expelled in 36 hours after calving, get your veterinarian to remove it by hand. Allow the calf to nurse her for at least four days, and do not milk her out in the meantime. After that take the calf away if you wish, and milk her by hand, but do not, on any account, milk her dry for at least four days after calving. V.

Maple Lodge Stock Farm 1854-1907.

Am now offering a grand lot of young Shorthorn Bulls, several from choice milking strains. Also a few extra good heifers.

A. W. SMITH, MAPLE LODGE, ONT.

Six Red Shorthorn Bulls

12 to 15 months old, got by Proud Gift = 60077 = (imp.); also cows and heifers, imported and home-bred. Inspection solicited. We think we have as good Shorthorn cattle as we have Lincoln sheep. 14 first out of a possible 19, our record at Chicago, 1906.

J. T. GIBSON, Denfield, Ont.

GREENGILL HERD of high-class

SHORTHORNS

We offer for sale 8 young bulls, a number of them from imp. sire and dam; also females with calf at foot or bred to our noted herd bull, Imp. Lord Roseberry.

R. MITCHELL & SONS,

Nelson P.O., Ont.; Burlington Junc. Sta.

T. DOUGLAS & SONS

STRATHROY, ONT.



Breeders of Shorthorns and Clydesdales. 15 bulls, 60 cows and heifers, 1 imp. stallion, imp. and home-bred allies. Write us what you want or come and see our stock. Farm 1 miles north of town.

KENWOOD STOCK FARM.

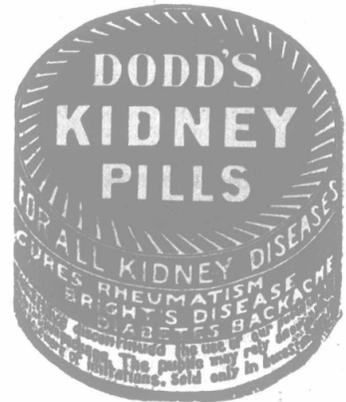
SHORTHORNS.

Headed by (Imp.) Jilt Victor = 45187 =. Offerings are two bull calves, an 11-months Miss Bamsden, from imp. sire and dam; a 19-months Missie, by Blythesome Buler, and other bulls; also heifers of choice breeding. A few choice Berkshire pigs just off the sow.

HUNNING BROS., Highgate, Ont. Kent Co.

Brown Lee Shorthorns—Present offering is 3 to 15 months old, a nice straight, good-doing lot, sired by Blenheim Stamp; also females of all ages, daughters of Imp. Sir Christopher and Imp. Beaneamp. Prices very reasonable. DOUGLAS BROWN, Av. P. O. and Station.

In every part of the country, says the Chicago Live-stock World, inquiry into the condition of the rural real-estate market develops the fact that values are still gradually crawling up. Farm land, within a radius of 40 miles of Chicago, that could have been bought at \$60 an acre five years ago, cannot be touched now for less than \$100. Great swarms of emigrants have gone to the Dakotas, and other parts of the West, and values there have appreciated in the same ratio. The farmer who pays \$150 to \$200 an acre for land must understand the same pretty well to make a good interest on his investment.



Vigorous Pigs

The sow is supposed to impart to her offspring her own constitution. It is, therefore, important that we raise pigs from vigorous, healthy sows. No stock will give as much return for the keeping as pigs, if properly cared for. It is said that in ten generations the progeny from a single sow will number into the millions. But disease must be avoided. Proper feeding is the first necessity and cleanliness the second. The advantage of giving a sow a tonic to insure proper digestion and assimilation, and to increase both quantity and quality of milk for pigs is apparent.

Dr. Hess Stock Food is the combination of just the proper tonics, etc., to produce perfect health, and hasten maturity. Given to the sow before farrowing, and up to weaning time, and in the milk and meal to the pigs afterwards, there will be no loss from disease, and a steady vigorous development will result.

DR HESS STOCK FOOD

In the prescription of Dr. Hess (M.D., D.V.S.) and costs but 5c per month for the average hog of 125 pounds. It is especially intended to make market stock grow faster, cows give more milk and horses do more work. Besides this, it gives stock that sleek, healthy appearance that commands the fancy price. As proof that Dr. Hess Stock Food will produce the results we claim, we quote Professors Winslow, Finlay Dun and Quitman—the most noted of all medical writers—who tell us that bitter tonics improve digestion, that iron makes blood and nitrates of soda and potash assist nature in throwing off the waste material from the system. These are the ingredients contained in Dr. Hess Stock Food, and besides it is

SOLD ON A WRITTEN GUARANTEE.

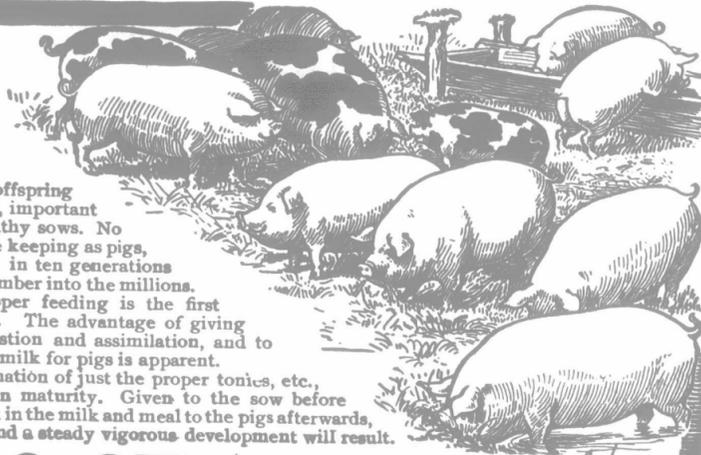
100 lbs. \$7.00. 25 lb. pail \$2.00

Smaller quantities at a slight advance. Duty paid.

Where Dr. Hess Stock Food differs in particular is in the dose—it's small and fed but twice a day, which proves it has the most digestive strength to the pound. Our Government recognizes Dr. Hess Stock Food as a medicinal tonic and this paper is back of the guarantee. Free from the 1st to the 10th of each month—Dr. Hess (M.D., D.V.S.) will prescribe for your ailing animals. You can have his 64 page Veterinary Book any time for the asking. Mention this paper.

DR. HESS & CLARK, Ashland, Ohio, U. S. A.

Also manufacturers of Dr. Hess Poultry Pan-a-co-a and Instant Louse Killer.
Instant Louse Killer Kills Lice.



QUESTIONS AND ANSWERS. Miscellaneous.

TWITCH GRASS.

What is the best means to get twitch grass out of your land, by summer-fallowing or by hoe crop?

NEW SUBSCRIBER.

Ans.—Summer-fallowing is a more thorough method than cultivating a hoe crop, though the latter is effective if properly looked after. See article on weeds in the Farm Department of this issue.

FENCE WITHOUT POSTS.

Having got a lot of cedar rails, but no posts, would like to be given a good plan of building a straight rail fence with same without posts.

RUSTY FARMER.

Ans.—For a fence five feet high make stakes six feet long, sharpened at one end; drive upright into ground in pairs at end of rails where they overlap each other. Brace at same place with two other stakes about seven feet long, one on each side, and wire altogether securely at top. If fence is intended only for cattle and horses, the lower rail could be raised above ground by a wire lapped around the two uprights.

IMPROVING DRAINAGE.

A ditch was dug draining several farms, put through by the township council, under the Ontario Drainage Act, and the owners of the farms benefited were assessed according to the advantage to each. The ditch gradually fills from year to year. Can one person petition the council to have it cleaned, or does it require more to sign the petition? Should it require to be deepened, what procedure is necessary to have it done? Ontario.

FARMER.

Ans.—The Municipal Drainage Act and the Consolidated Municipal Act, 1903, and amending acts, contain elaborate provisions for these matters. It is probable that the council of the municipality in question has passed a by-law, pursuant to Sec. 554 of the Con. Municipal Act, 1903, dealing with same. This by-law would have to be looked at, as well as the statutes mentioned, in order to determine just how the matters should be attended to. But any one of the persons interested could, by letter, bring same to the attention of the council, and it would be advisable for him to commence in this way.

THUMPS.

A very fine Yorkshire sow, in March, 1906, had 16 pigs, and did well with thirteen of them, until they were three weeks old, when three of them died. Symptoms were breathing heavy and pining away till death. In September, 1906, she had another litter of eleven. They all did well and averaged 175 lbs. at about five months old. Now she has another litter; had fifteen, and twelve of them did well until four weeks old, and two of them have died this week, same as the ones last March. I opened these two. One of them seemed to have an enlarged heart, with a sort of roughness on the outside. The other one's heart seemed to be of a normal size, but was inflamed on one side. Sow is fed on chop made of wheat, barley and oats, mixed with shorts and separator milk. The sow has been kept in a warm, small pen with the March litters; but she was allowed to run in the fields with the September litter.

W. L. A. C.

Ans.—It was no doubt a case of thumps, a trouble which attacks sucking pigs, and is caused by lack of exercise and a liberal supply of the dam's milk. Fat accumulates about the heart and lungs, interfering with the action of these organs. The fattest pig in the litter is usually the first to go. The breathing is quick, and apparently difficult, and the jerking movement of the flanks gives rise to the name thumps. A well-developed case is considered incurable, but exercise is a reliable preventive. Get the pigs out for a time each day. In winter, if nothing better can be done, a few minutes, several times a day, may be spent in the pen with a whip. Note that the September litter, which was allowed to run in the fields, was free from the affection. It seldom, or never, attacks pigs on pasture.

Shorthorns—Scotch and milking strains. As good milking strains as there are in Canada. Some pure Scotch. Can supply bulls of either strain; also a number of heifers from 1 to 3 years of age. Will be sold right. Dr. T. S. Sproule, M.P., Markdale P.O. & Sta.

SUNNYSIDE STOCK FARM
For sale: A number of young SHORTHORN BULLS, red and roan, from imported sire and dam; good enough to head pure-bred herds. Apply: **JAMES GIBB, Brooksdale, Ont.**

ATHELSTANE SHORTHORNS!
Pure Scotch Rosewood, Rosalind and Countess strains. Ten one and two year old heifers of the above strains, the get of the Village-bred son of Imp. Knuckle Duster, Vicar 3355, and the Bruce Mayflower bull, Star Prince; also young bulls from 6 to 12 months old. Prices reasonable. **WM. WALDIS, Box 324, Stratford, Ont.**

Wm. Grainger & Son
Hawthorn herd of deep-milking Shorthorns, Aberdeen Hero (imp.) at head of herd. Eight grand young bulls, also females, all ages. Prices reasonable. **Londesboro Station and P. O.**

SHORTHORN FEMALES.
I have sold all my young bulls advertised in Advocate, but have some good females, representing the families of Village Maids, Claret, Critchshank Village Blossoms and Ramsdens. **Box 556, HUGH THOMSON, St. Mary's, Ont.**

Blm Park
Shorthorns, Clydesdales & Berkshires
Herd headed by the choicely-bred bull, British Flag (imp.) 50016. Stock of all ages for sale. **JOHN M. BECKTON, Glencoe, Ontario, G.T.B., C.P.R. & Wabash. Farm adjoins town limits.**

SHORTHORNS & OXFORD DOWNS
Herds headed by Protector, Imp., Vol. 62 E. For sale: Bulls from six to twenty months—three from imported dams and imported sires. Also females in calf. Also eleven registered Oxford Down ewe lambs. All at reasonable prices. **John McFarlane & W. H. Ford, Dutton, Ont., Elgin Co. M.C.E. and P.M. Railways. Long distance phone.**

8 SHORTHORN BULLS FOR SALE
from 10 months to two years old. Several of their dams or grandams winners in Toronto. Prices very moderate. **J. & W. RUSSELL, Richmond Hill, Ont.**

SHORTHORN SNAPS
Roan bull, just 3 years old, purchased from Messrs. B. A. & J. A. Watt; also one white bull calf 9 months old, two roan cows, 4 and 5 years, purchased from Messrs. J. Watt & Son; also 3 red heifers, 2 mos., 1 year and 2 years old. Will sell cheap, as I am going out of business. Am also offering two well-bred Ayrshire bulls, 14 mos. and 2 years, the younger is sired by Leeseock King of Beauty (imp.); also two Ayrshire cows. For particulars and prices write **D. ALLAN BLACK, Kingston, Ontario.**

FOR SALE!
3 young Shorthorn bulls.
30 young Berkshire boars and sows.
30 Buff Orpington pullets. Eggs \$1 per 15.
Address: **E. JEFFS & SON, Bond Head, Ontario**

MAPLE HILL STOCK FARM—High-class Scotch Shorthorns. Herd headed by Rose Victor = 64835 = and Victor of Maple Hill = 65480 =, both sons of the Duthie-bred bull, Sittion Victor (imp.) = 50693 =, and from richly-bred imported cows. **W. R. Elliott & Sons, Box 426, Suelph.**

RECORD OF MERIT HOLSTEINS
Herd 110 strong. Over 40 head now in the Record of Merit. Two of the richest-bred bulls in Canada at head of the herd. For sale: 18 bulls, from 2 months to 1 year of age, all out of Record of Merit cows and sired by the stock bulls. **P. D. EDE, Oxford Centre P.O., Woodstock Station.**

Ridgedale Farm Holsteins—Present offering: One outstanding bull, also six bull calves, from one to four months old, sired by Prince Pauline De Kol 6th and from rich, heavy milking dams. Come and see them or write for prices. Shipping stations: Port Perry, G.T.B., or Myrtle, C.P.R., Ontario Co. **R. W. WALKER, Utica P.O., Ont.**

HILTON STOCK FARM—Holsteins, Cotswolds and Tamworths—Present offering: Some young cows; a nice lot of young pigs; few boars six months old, and sows in pig. **R. O. MORROW & SON, Hilton P.O., Brighton Tel. and Stn.**

Glenwood Stock Farm—Holsteins and Yorkshires. Holsteins all set out. Have a few young Yorkshires sows, about 2 months old, for sale cheap. True to type and first-class. Bred from imported stock. **THOS. B. CARLAW & SON, Warkworth P.O., Campbellford Stn.**

Evergreen Farm Holsteins is headed by DeKol, which we are offering for sale; sire of 10 daughters in Record of Merit; also a choice lot of young bulls fit for service, from Record of Merit cows with large records. **F. C. PETTIT & SON, Burgessville Ont.**

Greenwood Holsteins and Yorkshires
For sale: A few richly-bred bulls from one to eighteen months old. Also a few choice females of all ages. Yorkshires of either sex. **D. Jones, Jr., Caledonia P. O. and Sta.**

Grove Hill Holstein Herd
Offers high-class stock at reasonable prices. Only a few youngsters left. Pairs not akin. **F. R. MALLORY, Warkworth, Ontario, G.T.B. and C.O. Railways.**

Holsteins and Yorkshires
R. WONEY, Brinkley, Ont. offers a very choice lot of young bulls, cows and sows fit for sale.

HOLSTEINS FOR SALE

Four imported and one home-bred bulls from 8 to 18 months old; also our entire crop of spring-bull calves from week old up. **Sired by the grandly-bred imp. bull, Sir Howitz B. Pieterje, whose dam record is over 88 lbs. milk in one day, and from great-producing cows of the most fashionable strains. Can spare a few cows and heifers, from one year up; 75 head to select from. Cheese 13c. Don't delay if you want one from this herd.**

H. E. GEORGE, Crampton, Ont.

ANNANDALE FINE STOCK FARM

TILLSONBURG, ONT.
Premier sire, Prince Posch Calamity, whose dam and sire's dam average in official test 86 lbs. milk in 1 day and 26 lbs. butter in 7 days.
No stock for sale at present.

GEO. RICE, Tillsonburg, Ont.

LOOK HERE!

Now is the time to place your order for young stock from choice dams, and sired by a son of the greatest cow in Canada, Bouzja 2nd Pieterje De Kol (643 lbs. milk in 7 days 96 lbs. in one day). His sire's dam, Calamity Jane, 25 1/2 lbs. butter a week; gr-dam, Alta Posch, 27.07 lbs. butter a week. World's record under 3 years. Write for prices. **FRED ABBOTT, Fairview Stock Farm, Harrietsville, Ont.**

"THE MAPLES" HOLSTEIN HERD
is made up of Record of Merit cows and heifers with large records, and headed by Lord Wayne Mechtild Calamity. Bull calves from one to five months old for sale.

Walburn Rivers, Folden's, Ont.

"GLENARCHY" HOLSTEINS
43 head of big, deep-flanked, heavy-producing Holsteins, many of them milking from 50 to 80 lbs. a day on grass. Young stock of both sexes for sale. A straight, smooth lot. **G. MACINTYRE, Renfrew P. O. and Sta.**

High Grove Jerseys—Choice young bull for sale, 12 months; fit for service; a prizewinner at Toronto last fall, "Bim of High Grove" 73688. **ROBT. TUFTS & SON, Tweed, Ont.**

KENT OR ROMNEY MARSH

Annual Ram Sale.

Three Challenge Cups and other valuable cash prizes offered.

The annual show and sale of registered Kent or Romney Marsh rams, consisting of selected specimens from the leading flocks of the breed, will be held on

FRIDAY, 27 SEPT., 1907, AT ASHFORD, KENT, ENGLAND.

Catalogues and full information from

W. W. CHAPMAN,

Secretary Kent or Romney Marsh Sheep
Breeders' Association, Mowbray House,
Norfolk St., Strand, London, England, W. C.

BRAMPTON JERSEYS

Canada's Premier Herd

Strengthened regularly by importations from United States, England and the Island of Jersey.

We have animals of all ages and both sexes for sale, and the largest herd in Canada to choose from.

Write for prices and particulars.

Long-distance 'phone at farm.

B. H. BULL & SON, Brampton, Ont.



Burnside Ayrshires

Imported and Canadian-bred. Prizewinners at all the leading shows. I hold the award of merit given by the Bd. of Dir. of World's Fair, St. Louis, to the breeder of largest number of prizewinning Ayrshires at said Exposition. Females of all ages for sale, imported and Canadian-bred.

R. R. NESS, JR., HOWICK, QUE., P.O. AND STATION.

MAPLE GLEN HOLSTEIN HERD

Quality Tops for Sale

In A. R. O. test a Sylvia female has just made 606 lbs. milk and 26.04 lbs. butter for 7 days. Who wants her son by Sir Alta Posch Beets? Four other of his sons for sale. A sister to his dam has just made over 32 lbs. butter in 7 days. Prices right.

G. A. GILROY, Glen Buell, Ont. Brockville Stn., G.T.R. or C.P.R.

MAPLE HILL HOLSTEIN-FRIESIANS

Kornelke Teake, calved Aug. 16, 1906. This year she has in her pedigree have sired 503 daughters with official seven-day butter records. Twenty dams in his pedigree have official butter records averaging 23 lbs. 1 oz. of 85.7 per cent butter in seven days. For extended pedigree price, etc., write

G. W. CLEMENS, St. George, Ont.

Lyndale Holsteins

Two bulls fit for service, sired by a son of De Kol 2nd's Butter Boy 3rd; also a number of bull calves, out of Record of Merit cows.

BROWN BROS., LYN, ONTARIO.

Imperial Holsteins

Bull calves for sale.

W. H. SIMMONS, New Durham P. O., Ont.

DON JERSEY HERD

Our Jerseys rank second to none in Canada. Present offering. Choice young bulls and heifers, bred from prizewinners and great producers. Write for what you want. Visitors welcome.

D. DUNCAN, Don, Ont. Duncan Sta., on Canadian Northern Railroad, near Toronto.

Pine Ridge Jerseys For sale very cheap some choice young bulls, bred in the purple, of ideal type; also a few heifers and heifer calves, and some Cotswold shearing rams and ram lambs. Wm. Willis & Son, Newmarket P. O. & Sta

Springhill Ayrshires.

Over 25 heifers from 6 months to 3 years of age. Nearly all of them imported, the balance bred from imported stock. A high-class lot of show stuff. A few older ones imported and Canadian-bred. Three bull calves, 1 of them imported in dam, the others bred from imported Cross of Knockdon. Anything in the herd is for sale.

Robt. Hunter & Sons, Maxville, Ont.

Ayrshire Bulls One last September and a few March and April calves by the champion Douglasdale (imp.). W. W. BALLANTYNE, "Neidpath Farm," Stratford, Ont. Long-distance 'phone.

SPRINGBROOK AYRSHIRES gave an average of 7,000 lbs. of milk, testing 5.9 per cent. butter-fat in 1906. A few bull calves for sale. Prices quoted for females. W. F. STEPHEN, Box 163, Huntingdon, Que.

Ingleside Ayrshires won more prizes in 1906 than all other competitors combined. Young stock of either sex for sale. H. C. HAMILL, Islay P. O., Ont. Fenelon Falls or Lorneville Stn.

Wardend Ayrshires We are offering young bulls from 1 to 3 years old; also a choice lot of spring calves from deep-milking dams. Sired by White Prince of Menie No. 1895; bred by A. Hume, Menie. F. W. TAYLOR, Wellman's Corners. Hoard's Stn., G. T. R.

Glenhurst Ayrshires Oldest-established herd in Ontario. Imp. and Canadian-bred. Average B. F. test for the whole herd, 4.2; milk yield, 40 to 60 lbs. a day. For sale: females of all ages, and several young bulls; all by Imp. sire and some out of Imp. dams. James Benning, Williamstown P. O., Lancaster Sta.

Ayrshires 3 prizewinning bulls fit for service at reasonable prices, also younger ones for quick buyers. N. DYMENT, Hickory Hill Stock Farm, Dundas Stn. and Tel. Clappison, Ont.

SOUTH DOWNS AND **Sootch Colliers.** Robt. McEwen, Byron, Ont. Long-distance 'Phone.

QUESTIONS AND ANSWERS. Miscellaneous.

CHAMPION LION — WESTFIELD STAMP.

1. Can you tell me if a horse named Champion Lion was registered, and who owned and imported him?

2. Did a horse called Westfield Stamp take any prize or honors at the World's Fair, Chicago, and what, please?

ONE INTERESTED.

Ans.—1. He is not registered.
2. He stood sixth in his class as a three-year-old, and was commended.

BLOODY MILK.

Cow freshened April 7th is giving milk with blood in it. Had been getting straw all winter up to two weeks before calving, then oat chop, hay, bran slop and stock food. She appears to be in good health.

V. K.

Ans.—Bloody milk is due to the rupture of some of the small blood vessels in the udder. This is commonly induced by hereditary weakness in the blood vessels, and in such cases recurrence of the trouble cannot be prevented. However, the condition is liable to occur in any cow, and may be brought on by accidental injury to the udder, or (in summer) by chasing with dogs. Bathe the udder well and often with cold water, and give one ounce tincture of iron in a pint of cold—but not ice-cold—water twice daily until blood ceases to appear in the milk.

ACUTE INDIGESTION IN PIGS.

I have a brood sow which had a fine litter of 12 pigs. They are now over two weeks old and doing fine, up to a few days ago, when one took sick and was dead in an hour. The next day another went the same way. What is the cause? Those that have died have a number of sharp-pointed teeth, of a dark color. Would you advise taking them out? The sow has been fed on peas and oat chop, and milk.

W. C.

Ans.—We should judge you have been feeding the sow too liberally with strong food, and both sow and pigs have had too little exercise. The trouble is probably due to acute indigestion and pressure of the stomach upon the heart. Lighter feeding and more exercise is the best preventive, and a purgative of raw linseed oil the best treatment. The black teeth are an indication and effect of indigestion. It is well to break off the sharp points with a pair of small pincers.

PIGS DYING.

Pigs from four to seven weeks old, while still with the sow, die suddenly. Apparently they are well in every respect until the first symptoms appear; then their hind legs fail, they grit their teeth, gasp for breath, become cold in ears, cold gradually extends over belly, belly swells some, all strength goes, and they are dead in about three hours. These pigs have good quarters, being in pens 10 ft. x 12 ft., wooden floors on a sloping cement floor, so that all is dry under them. They have no cough, and are in just good growing condition. They have been on the sow and getting separator skim milk, with a little corn meal in it.

H. I. J.

Ans.—It is difficult to diagnose this disease with any degree of certainty, and any attempt must be largely guesswork, as no disease of similar description is shown in veterinary works. We should incline to rank it with one of the forms of indigestion, owing to insufficient exercise, and from heavy feeding of the dam, and should depend more upon preventive than upon curative measures, as dosing pigs seldom effects a cure, and in this case the shortness of the time from appearance of illness to death would give little hope for the success of remedial effort. It is not easy to provide for exercise in winter or early spring, yet the fact that this ailment never occurs in the case of summer or early autumn litters, but is frequent in winter litters, seems to indicate that free exercise and access to the ground is a necessity in successful pig-raising. Access to gravel, ashes or grit of some kind, and the feeding of succulent food and of bran to sow and litter, in order to keeping the bowels relaxed, appears to be the best preventive treatment.

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 5-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. FLEMING BROS., Chemists, 75 Church Street, Toronto, Ontario.

HAMPSHIRE DOWN SHEEP

"Reserve" for Champion in the Short-wool Classes, Smithfield, London, 1905, 1906 and 1907.

SPLENDID MUTTON GOOD WOOL GREAT WEIGHT

This highly valuable English Breed of Sheep is unrivalled in its

Wonderfully Early Maturity.

Hardiness of constitution, adapted to all climates whilst in the quality of mutton and large proportion of lean meat it is unsurpassed, and for crossing purposes with any other breed unequalled. Full information of

JAMES E. RAWLENCE,
Secretary Hampshire Down Sheep Breeders' Association.
Salisbury, England.

SOUTHDOWN SHEEP

Unequaled for fine quality of both mutton and wool, hardiness of constitution and earliness of maturity.

STRIDE & SON

will sell by auction at

**Chichester, on Wednesday
August 7th, 1907**

6,000 Pure-bred Southdown Ewes.
450 Pure-bred Southdown Ram
and Ram Lambs.

Including consignments from nearly all the leading registered flocks in England. Commissions carefully executed. Telegrams—Stride, Chichester. Postal address:

Stride & Son, Chichester, Sussex, England.

Lincoln Long-wool Sheep Breeders' Association.

LINCOLN SALES, 1907.

The 22nd sale of Lincoln Long-wool Rams and Gimmers, by members of this Association, will be held in Lincoln, on Thursday and Friday, the 5th and 6th of September, next.

William Frankish, Secretary,
St. Benedict Square, Lincoln.

SHIP US YOUR CALFSKINS

Write for our prices.

E. T. CARTER & CO., Toronto, Ont.

Canadian Agents for the Original McDougall's Sheep Dip & Cattle Dressing

Imported direct. Price: Imperial pints, 75c; Imperial half gallon, \$1.25; Imperial gallon, \$2.50. Sold by druggists, or charges prepaid on one-gallon tins. THE WORTHINGTON DRUG CO., Toronto, Ontario.

Sheep and Cattle Labels. You will need them soon. See about them now. Write to-day for circular and sample. F. G. JAMES, Bowmanville, Ont.

For Sale—Ohio Improved Chester Whites, the largest strain, oldest established registered herd in Canada; young sows in farrow; choice young pigs, six weeks to six months old; pairs not skin; express charges prepaid; pedigree and safe delivery guaranteed. Address: E. D. GEORGE, Putnam, Ont.

YORKSHIRES of Choicest Type and Breeding.



I have on hand 75 brood sows of Princess Fame, Cinderella, Clara, Minnie, Lady Frost and Queen Bess strains. My stock boars are true to type and richest breeding. For sale are a large number of sows bred and ready to breed, boars fit for service, and younger ones of both sexes. Pairs and trios not akin **J. W. BOYLE, Woodstock, Ont.**

Woodstock Herd of Large English Berkshires



I have for sale pigs of all ages, both sexes, from prizewinning stock. I am booking orders for spring delivery from my imp. and home-bred sows. Come and see or write for prices. My herd was in the front rank of prizewinners at the leading exhibitions this fall. **DOUGLAS THOMSON, Box 1, Woodstock, Ont.**

O. P. R. and G. T. R. Stations.

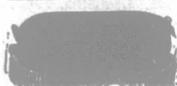
Rosebank Berkshires.



Boars fit for service. Sows ready to breed. Choice young stock ready to wean, sired by Maple Lodge Doctor and Sallie's Sambo (imp.), a Toronto winner. **Lefroy, G.T.R. JOHN BOYES, JR., Churchill, Ont. Long-distance Phone**

HILLCREST BERKSHIRES

Stand unrivalled for individual merit in the herd. Our business for 1906 surpasses former years. The enquiry for choice sows for sale due to farrow in the spring. Also a few boars on hand. Vine Sta. G.T.R. near Barrie. **John Lahmer, Vine P.O.**



OAKDALE BERKSHIRES Largest Berkshire herd in Ontario. Stock boars and several brood sows imported. For sale: Sows bred and ready to breed, boars ready for service, and younger ones, all ages, richly bred on prizewinning lines and true to type. Everything guaranteed as represented. Long distance phone. **L. E. MORGAN, Milligan P.O., Co. of York.**

LARGE ENGLISH YORKSHIRES

We have a limited number of choice young pigs for sale, bred from our choicest sows, and got by the imported boars, Dalmeny Joe 12677 and Broomhouse Beau 14514. Pigs from the latter won all the first prizes at the Ottawa Fair Stock Show last March for the best dressed carcasses, and sweepstakes over all breeds of grades. We guarantee satisfaction in all mail orders. **Joseph Featherston & Son, Streetsville, Ont.**

Willowdale Berkshires

Young boars and sows 3 and 6 months of age out of imp. sows, and sired by imp. Polgate Doctor, Royal Masterpiece, a son of the \$2,500 boar, Masterpiece, and some of them imp. in dam. Satisfaction guaranteed. **J. J. WILSON, Milton P.O. and Sta.**

Dunrobin Stock Farm

Clydesdales, YORKSHIRES, Shorthorns

We are booking orders for breeding stock from our grandly-bred Yorkshire sows. Twenty-five sows to farrow in the next few weeks. Unrelated pairs a speciality. Write for prices and particulars. **DONALD GUNN & SON, Beaverton, Ontario. INSPECTION INVITED. G. T. R., C. N. O. R. stations 1 1/2 miles from farm. Customers met on notification.**

ORCHARD HOME TAMWORTHS

Herd headed by Newcastle Warrior. This hog won first prize and silver medal at Toronto 1905, and defeated his sire, Colwill's Choice (1343), who has won these honors three years in succession. Our brood sows are large and of the same high quality. If you want choice stock, we can satisfy you at a reasonable price. Young boars fit for service; also young pigs now on hand. One good York-hire boar one year old. Express prepaid and satisfaction guaranteed. **GRANDALL BROS., Cherry Valley, Ont.**

Newcastle Herd of Tamworths and Shorthorns.

We have for quick sale a choice lot of boars and sows from 3 to 6 months old, the produce of sows sired by Colwill's Choice and Newcastle Warrior, both our own breeding, and winners of sweepstakes and silver medal at Toronto, 1901-02-03-05. Several very choice sows due to farrow in March and April. Pedigree furnished with every pig. Several choice heifer calves and heifers in calf to our present stock bull. All of high show quality. Prices right. Daily mail at our door. **COLWILL BROS., Newcastle, Ont.**

Maplehurst Herd of Tamworth Swine, Bronze Turkeys, Toulouse Geese, Pekin Ducks, S.-C. W. Leghorns.

For sale: A large herd of Tamworths, of excellent breeding and ideal bacon type. This herd won sweepstakes at Toronto and London, 1905-6. Among our winnings at World's Fair, St. Louis 1904, both premier championships, sweepstakes aged and junior herd, and two grand champion ships. Inspection and correspondence solicited. For further particulars apply to **D. DOUGLAS & SONS, Mitchell, Ont.**

Mount Pleasant Tamworths and Holsteins.

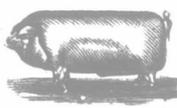
Herd of **For Sale:** Pigs of either sexes, from 6 weeks to 7 months; pairs not akin. Tamworths and heifer calves and 5 months. Phone in residence. **BERTRAM HOSKIN, The Gully P.O.**

Yorkshires and Tamworths—Either sex, any age, both sexes; sows bred and ready to breed. Yorks bred from imp. sire and dam. Tamworths bred from Toronto winners. Pairs not akin. As good as the breeds produce. **CHAS. CURRIE, Morriston P.O. Schaw Sta., C.P.R.**

DUROC-JERSEYS

Booking orders for spring pigs. All others sold. **Mac Campbell & Sons, Harwich, Ont.**

CHESTER WHITE HOGS



The largest herd of bacon-type Chester White hogs in Canada. Strictly high-class have won highest awards. Young stock of both sexes always on hand. Satisfaction guaranteed. **ROBERT CLARKE, 41 Cooper Street, Ottawa, Ont.**

Cedar Lodge Yorkshires

100 head brood sows (imp.) and the product of imp. stock, weighing from 500 to 800 lbs. each. Stock hogs by imp. sires and dams, very large and full of quality. Young stock of both sexes constantly on hand for sale. Pairs not akin. Satisfaction guaranteed. **P. O. COLLINS, Bowesville P.O., Ont. Manotick Sta., C.P.R.**

MAPLE LEAF BERKSHIRES!



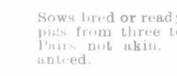
Now offering King of the Castle sows bred to British Duke (imp.) also young sows and boars, 9 and 10 weeks old, from British Duke (imp.). **Joshua Lawrence, Oxford Centre P.O. Woodstock Station.**

Cherry Lane Berkshires



Are strictly high-class. Toronto winners. Of all ages. Young stock of both sexes for sale. Pairs supplied not akin. **Sam Dolson, Alloa P.O., Norval Str. COUNTY PEEL.**

Glenhodson Yorkshires



Sows bred or ready to breed. Young pigs from three to six months old. Pairs not akin. Satisfaction guaranteed. **GLENHODSON COMPANY, Myrtle Station, Ont. Long distance phone at farm. Lorne Foster, Mgr.**

IMPROVED LARGE YORKSHIRES.

Choice young stock from imported prizewinning stock for sale. **GEO. M. SMITH, HAYSVILLE, ONT.**

Berkshires—Chief herd boars: Compton Duke (imp.), and Elnhurst Swell (imp.). Sires: 5 boars, 5 sows, 1 nine-months old. Pigs ready to wean. Motto: "Satisfaction guaranteed." Careful selections for sale. **M. VANDERLIP, Cainsville, Ont.**

ELMFIELD YORKSHIRES

1. Young pigs from 2 to 5 months of age. Young boars ready for service. Pairs not akin. Prices right. **G. W. MOYMA, Ayr, Ont.**

QUESTIONS AND ANSWERS. Miscellaneous

BREACH OF CONTRACT.

I bought a pig from an advertiser, who agreed to furnish me pig for so much, and register him. I sent cash, received pig, but never got registration papers. What action should I take to secure registration papers? **A. B. H.**

Ans.—Write him, registering your letter, stating that if certificate of registration is not furnished within a certain time, say 30 days, you will enter an action for breach of contract. If this does not have the desired effect, get your solicitor to write him, giving reasonable notice of action to be taken, when, if not heeded, more stern proceedings may be commenced, presuming that you are in a position to substantiate your statement of the case. We are at a loss to understand why a business man should treat a customer in this manner. It is not business in any sensible sense of the term, and will not wear.

SEEDING DOWN HILLSIDE ORCHARD.

I have a sidehill orchard which I sowed with oats last year and put seed on it, but the seeding did not catch, as the oats grew too stout. Would it be wise to seed it down with alfalfa? If so, how would I go about to sow it? It is well drained. If not alfalfa, what would you recommend? **H. A. B.**

Ans.—Never sow alfalfa in an orchard, except possibly as a cover crop, to be plowed under early the following spring. Alfalfa is such a deep-rooted, strong-growing crop that it uses up too much of the soil moisture and available fertility, thus robbing the trees. We have known orchards to be ruined by it and have yet to see one where alfalfa has been growing a few years, that did not have a sickly color of foliage on the trees. Of course the result would probably not be so bad if the alfalfa were mowed each time it grew up and used as a mulch about the trees, but even then its effect would be injurious. When the orchard is on a hillside and the system of sod culture must be adopted, seed down with shallower-rooted meadow crops, say, red clover, 6 pounds, alsike 2 pounds, timothy 3 pounds and orchard grass 3 pounds. Work up as soon as possible, drag-harrow or disk repeatedly till late May or June, then when the ground is nice and mellow, sow the seed without a grain crop and harrow in.

PEAS AFTER TURNIPS—PREMATURE BIRTH.

1. Would peas do well on land that had turnips on last year and was fall-plowed? It is clean of weeds, that is why I would prefer it sod. Would it be too solid?

2. Calf came 33 days before the allotted time of nine months; was alive, but died in two days on account of not getting passage freely enough. Give proper instructions for rearing such a calf. It was strong as the average, but could not get up. **K. M. B.**

Ans.—1. Peas should do well enough after turnips, but we do not consider it the proper arrangement of rotation. Peas work in best when grouped with the root and corn crops, and should follow sod. While peas are not very good to keep down thistles or such weeds, there is no crop better, unless it be buckwheat or rape, to choke out grass. After peas, sow wheat, and seed down. The turnip land should be sown with barley, spring wheat, oats, emmer or mixed grains, and seeded to clover this year. It is a great mistake and entails heavy loss of fertility to go on cropping a field year after year without seeding down. It is almost equally bad to leave one too many years consecutively in sod. Short rotation kills weeds, saves fertility, yields the best crops and builds up a farm.

2. In such case, the contents of the anus should be removed with the oiled finger, and a tablespoonful of castor oil administered as a drench in warm milk from the dam. Calf should be either held up to suck, a little at a time, or a small portion of the dam's fresh milk given warm from a bottle with a rubber nipple. The cow's first milk is essential, as it is of a relaxing nature, and she should not be milked out clean for four or five days.

MILBURN'S LAXA-LIVER PILLS

are mild, sure and safe, and are a perfect regulator of the system.

They gently unlock the secretions, clear away all effete and waste matter from the system, and give tone and vitality to the whole intestinal tract, curing Constipation, Sick Headache, Biliousness, Dyspepsia, Coated Tongue, Foul Breath, Jaundice, Heartburn, and Water Braah. **Mrs. R. S. Ogden, Woodstock, N.B., writes:** "My husband and myself have used Milburn's Laxa-Liver Pills for a number of years. We think we cannot do without them. They are the only pills we ever take."

Price 25 cents or five bottles for \$1.00, at all dealers or direct on receipt of price. **The T. Milburn Co., Limited, Toronto, Ont.**

MONKLAND Yorkshires

Imported & Canadian-bred. We keep 35 brood sows, and have constantly on hand between 100 and 200 to choose from. Can supply pairs and trios not akin. Quality and type unsurpassed. Prices right.

JAS. WILSON & SONS, FERGUS, ONT. G. T. R. and C. P. R. Long-distance Phone

Large White Yorkshires.

A number of excellent sows, direct from imported stock in pig to Worsley Duke, Imp.; also imported sows of different ages. Young boars and sows can be supplied not akin. Orders taken for young pigs. Write for what you want. **H. J. DAVIS, Woodstock, Ont. Importer and Breeder of Yorkshires and Shorthorns.**

GLENBURN HERD OF YORKSHIRES

Winner of gold medal three years in succession. Offers for sale: 18 young boars, 4 months old; a large number of sows, same age; also 30 suckling pigs, both sexes. Also a grand good Shorthorn bull (roan), 10 months old.

David Barr, Jr., Box 3, Renfrew, Ont.

Maple Grove Yorkshires

are among the leading Canadian herds for size, quality and true-ness to type, and are prizewinners all around. For sale are both sexes. All ages. Bred from imp. and home-bred stock. There are none better. **H. S. McDIARMID, Fingal P.O., Sheelden Station, Breeder and Importer.**

Fairview Berkshires

Are second to none. My herd has won high honors wherever shown. Am now offering sows bred and ready to breed, and younger ones of both sexes, the get of Masterpiece and Just the Thing. An exceptionally choice lot. **JOHN S. COWAN, Donegal P.O., Milverton Sta.**

SUNNYMOUNT BERKSHIRES.

Sunnymount Berkshires are unsurpassed for ideal bacon type and superior breeding. For immediate sale. A few choice boars from 5 months up to 15 months old. **JOHN McLEOD, Milton P.O. and Sta., C.P.R. & G.T.R.**

Fairview Berkshires

Bred from imported and Canadian-bred sires and dams, and bred on prizewinning lines. My brood sows are large, choice animals. Young stock of both sexes. Some sows bred to imp. boars. **HENRY MASON, SCARBORO P.O. Street cars pass the door.**

If You are Deaf--Read This.

The Accidental Discovery of an Electrical Engineer, which Restored His Lost Hearing.

That "Truth is stranger than fiction" is most forcibly illustrated in the case of Mr. Geo. P. Way, for many years the electrical engineer of the Detroit Y. M. C. A., in the accidental discovery, through the application of a scientific principle, through the application of which his lost hearing was completely restored.



GEO. P. WAY, inventor.

For 25 years Mr. Way was a deaf man, unable to hear his wife's voice across the table, unable to enjoy an active part in social life. For him, as for every deaf person, life was a gloomy, individual matter. He was so deaf he could scarcely hear the roar of his engines and dynamos. For ten years he carried an ear trumpet, and had tried every device known; had almost constantly been under medical treatment in the vain effort to get back his hearing. To-day he hears perfectly, yet when he removes two tiny devices from his ears, he is quite as badly off as before—he is again deaf. The story of his discovery, which restored his hearing, is remarkable.

As Mr. Way tells it, he was at his post in the dynamo-room one day, and as the buzzing in his ears bothered him more than usual, he placed a curiously-shaped tuft of waste in his right ear. Immediately in the midst of the silence that is the misery of one shut off from the sounds of the busy world, there came a crashing sound, and Mr. Way bounded across the room terror-stricken. Unconsciously he pulled the tuft of waste from his ear. Instantly he re-

turned to the silence that had enveloped him for years. The sound of the machinery came to him as far away. Then he realized the truth—he had found a scientific principle which would give him back his hearing. For five years he experimented constantly to put his accidental discovery to practical use. He studied the construction of the human ear from every standpoint. At last complete success crowned his efforts. The Way Ear Drum was the result, and it restored his hearing. Others heard of the marvel and he was overwhelmed with requests for the little device.

Wealthy business men in Detroit, who had known Mr. Way for years, and the marvelous results which his invention had brought, gave him full financial backing, to extend the blessings which his wonderful ear drums bring to those who suffer from impaired hearing and deafness. Thousands of the drums have been sold in every part of the world, as one pair of the drums in any locality produces many other sales. **Nine persons out of every ten who have used the Way Ear Drums have benefited by them.**

The Way Ear Drum is a thoroughly scientific device. It is of peculiar, sensitive material, shaped to exactly fit the opening to the inner ear. It is easily and quickly placed and removed; cannot collapse; is entirely unfelt and unseen; is very durable, and it **does bring back the hearing.** Don't judge the Way Ear Drum by any other ear device. It is distinctively different in principle. If you are deaf or "hard of hearing," if your hearing is becoming dull, if you have "noises in the head," write a plain letter telling your troubles to Mr. Way. He will be honest and will tell you whether the Way Ear Drum will help you. It costs you nothing to find out. Write personally to-day to Geo. P. Way, 521 Majestic Bldg., Detroit, Mich., U. S. A.

GOSSIP.

A carriage stallion is advertised for sale by E. W. Brooks, Glen Ross, Hastings County, Ontario.

The post-office address of Mr. A. F. O'Neil, given in footlines to the portrait of his imported Clydesdale stallion, Celtic Prince, appearing in "The Farmer's Advocate" for April 25th, should read Maple Grove, instead of Maple Lodge.

Mr. Jas. Elliot, of Oxford Centre, Ont., writes that he sails May 3rd for Scotland for another importation of Clydesdale fillies, which will be sold by auction at Guelph about June 20th, further notice of which will appear in the advertising columns of "The Farmer's Advocate," when the exact date of sale is decided upon.

A special meeting of the members of the Clydesdale Association of Canada is called for consideration of the proposed amendment to the rules regarding the registration of imported stallions and fillies. The meeting, as will be seen from the advertisement on another page of this issue, is to be held at the King Edward Hotel, Toronto, on May 23rd, at 2 o'clock. See the advertisement, and be governed accordingly.

Breeders and owners of Clydesdale stallions or mares, eligible to registry in the Canadian National Records, should read the advertisement in this paper, calling attention to the importance of attending to the registering of their stock promptly. Information is given in the advertisement as to how to proceed in order to secure the necessary entry forms and the rules governing registration, the fees required, etc.

The imported Clydesdale stallion, King Thomas (12625), whose picture appears on another page in this issue, was recently imported by Mr. T. J. Berry of Hensall, Huron Co., Ont., who owns him and will stand him for service this season at his own stables at two dollars at time of service and fifteen dollars first of January, 1908, if mare proves in foal. King Thomas is a dark brown, rising 5 years, stands seventeen hands high, weighs close to a ton, has the best of feet, clean flat bone, silky hair, capital action and is thoroughly sound. He was sired by Prince Thomas, by Sir Thomas, by Prince of Wales (873), and his dam, Mary Garden (9665), was a champion mare sired by McCamon that won at the Centenary Show at Edinburgh, and was sold to the Aberdeenshire Horse Breeding Co. for £850 (\$4,250). Mr. Berry claims to have brought more than one hundred horses over the sea in his time, including many good ones, but reckons King Thomas the best of the lot.

ANNOUNCEMENT.

Fairview Farm, Woodville, Ont., is to be henceforth carried on by Messrs. J. & D. J. Campbell. The senior partner, wishing to obtain more freedom from close attention to the management, has arranged with his nephew to relieve him. Mr. Donald J. Campbell has from early childhood been on the farm, and for many years been an active helper. He will therefore be in close touch with the business, and it is the intention that breeding of Shorthorns, Shropshires and other lines shall be carried on as in past years.

TRADE TOPIC.

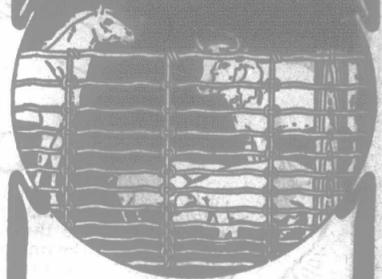
CHATHAM KITCHEN CABINET.—Invention so far has done rather more for the farmer than for his wife, though every affectionate husband is prepared to welcome conveniences to relieve the labor of the women on the farm. In this issue will be found an attractive proposition from that well-known firm, The Manson Campbell Co., Chatham, Ont., who offer to sell a useful kitchen cabinet on a liberal time-payment plan. Look up their advertisement, which shows a cut of this excellent piece of furniture, and write at once for particulars, mentioning this paper.

THE PEERLESS WOVEN WIRE FENCE

The regular styles of Peerless Fence are made of heavily galvanized all No. 9 hard drawn steel wire because this grade has been found to be the very best for the purpose. It is not too hard nor too soft, but strong and elastic. An extremely hard wire breaks easily at a sharp bend, but very soft wire will stretch and has no elasticity. The Peerless No. 9 is neither soft or brittle, but has the strong elastic qualities a good fence requires.

You do not want a fence to bag or sag at the center. Peerless Fence is strong and springy. The upright wires are stiff and are held in position by the Peerless Lock. This

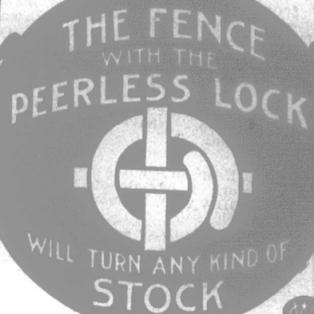
ALL NO 9 WIRE



lock holds securely without damaging the wires, and while it holds the cross and horizontal wires firmly together, the fence is elastic and will readily conform to any land surface. Peerless Fence offers the most complete resistance to all kinds of stock and it is impossible for them to get over, under or through it.

Write for our printed matter, telling how to build fences and make concrete posts.

The Banwell Hoxie Wire Fence Co. Ltd.
Dept. B, Hamilton, Ontario, Canada.



The Fairview herd of Holstein-Friesian cattle, property of E. H. Dollar, of Heuvelton, N. Y., seven miles from Prescott, Ont., is advertised in this paper. This herd is the home of the famous cow, Pontiac Rag Apple, that sold recently for \$8,000. Young bulls and heifers, by the sire of this cow, are offered for sale, and inspection of the herd is invited.

The excellent engraving of a group of Lincoln yearling ewes, appearing on another page in this issue of "The Farmer's Advocate," the property of Mr. A. D. McGugan, Glenora Stock Farm, Rodney, Ont., represents a typical bunch of that heavy-fleeced, strong-constituted breed of sheep, so much in demand at the present time, and selling for such high prices in England. A descriptive sketch of this fine flock appeared in the "Gossip" columns of our April 25th issue.

SUNSHINE FURNACE

UNBREAKABLE FIRE-POT

The lower portion of a fire-pot is usually nearly or partly filled with dead ashes, leaving the live, red-hot coals in the upper part. The result is that the upper portion expands much more than the lower.

This uneven expansion causes a strain too great for a one-piece fire-pot to stand. Sooner or later it will split, allowing precious heat and sickening gases to escape.

But the fire-pot of the Sunshine is constructed to meet this condition. It is in two sections. The upper half expands, as much as necessary, independently of the lower. When cool, it contracts back to its original size, fitting to the lower half perfectly.

And this strong, unbreakable, gas and heat-tight, two-piece fire-pot is just one of the many superior features of the Sunshine.

If your local dealer does not handle the "Sunshine," write direct to us for **FREE BOOKLET.**

McClary's

London, Toronto, Montreal, Winnipeg, Vancouver, St. John, N.B.



London FACE DOWN Adjustable Concrete Building Block Machine

We defy competition. Send for catalogue No. 1.

THE LONDON CONCRETE MACHINERY CO.,
28 Redan St., London, Ont.

Largest exclusive concrete machinery company in Canada.

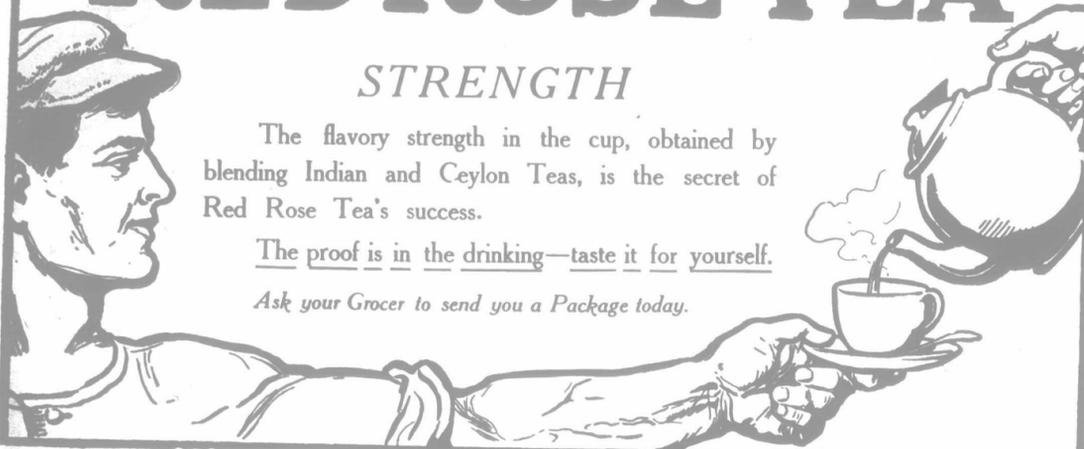
RED ROSE TEA

STRENGTH

The flavory strength in the cup, obtained by blending Indian and Ceylon Teas, is the secret of Red Rose Tea's success.

The proof is in the drinking—taste it for yourself.

Ask your Grocer to send you a Package today.



FOR WEAK MEN

When you hear two or three men praising Dr. McLaughlin's Electric Belt you do not pay much attention to them, but when you hear a lot of men praising it you begin to think that maybe there is something in this appliance. Should you meet a friend on the street and comment on his appearance and he tells you that Dr. McLaughlin's Electric Belt is the cause of his good health,

even though you do not believe in electric belts yourself still you can't help being glad that your friend imagines that it cured him. You are but one out of hundreds who at first were skeptical, but these same men are to-day praising it as only men can who have been cured of their aches and pains by its use.

DR. McLAUGHLIN'S ELECTRIC BELT

Is a wonderful renewer of the vigor of men. Its touch is the touch of magnetism. It fills the nerves with snap. It charges the body with a grand force of vitalizing energy, and turns back the hand of time for men who have begun to feel old, broken down and feeble; men who are weak and puny, and who have lost the force of vitality, who feel gloomy, despondent and unable to battle with the affairs of life; who have Rheumatism, Back Pains, weak Stomach and Kidneys, and feel generally as if they needed to be made over.

If you have been paying money to doctors and taking nasty drugs for years, and after getting no benefit from it all, you find a new lease of life after using our Belt for a month, you will be enthusiastic. You will want to go out on the highways and shout, and you won't care who knows that you were once a weakling, because now you are cured. Our Belt is easy to use; put it on when you go to bed; you feel the glowing heat from it (no sting or burn as in old-style belts, and you feel the nerves tingle with the new life flowing into them. You get up in the morning feeling like a two-year-old.

Dear Sir,—I now send you a statement as regards my Belt. It has done wonders for me. Since using it, the pains are almost gone. I have gained in weight and eat and sleep well. Wishing you continued success, I remain.—EDWARD LA FLAIR, Klock, Ont.

Dear Sir,—I like your Belt fine. I am well satisfied with it. I feel stronger than I have for a long time, and I can do more work. It has already proved itself to be all that you recommended it to be. Wishing you every success in your good work.—N WOODWARD, Belmont, Ont.

Dear Sir,—I am going to tell you how things are with me now. I do not remember when I felt so well as I do now. I have not had an ache or pain since I began using the Belt. I sleep well and when I awake in the morning I am ready to spring out of bed. I feel so happy and well that I can hardly believe that I am the same person. Thanking you very much for your kindness, and for your Belt.—C. H. MELVIN, Aylesford, N.S.

I HAVE AN ELECTRIC BELT THAT DOES CURE, and I am offering it to you in such a way that you take no chances whatever. Give me your name and address, with a statement of your case, and I will at once arrange a Belt suitable for your case, and

WHEN YOU ARE CURED, PAY ME

All I ask is reasonable security for my Belt while you are wearing it.

Call To-Day—Free Book

This book should be read by every man. It tells facts that are of interest to every man who wants to remain young in vitality at any age. If you can; if you can't, send coupon for our beautifully illustrated 84-page Free Book.

Dr. M. S. McLaughlin, 112 Yonge St., Toronto

Please send me your Book, free.

Name

Address

Office Hours—9 a.m. to 6 p.m., and Wed. and Sat. until 9 p.m. Sunday, 10 a.m. to 1 p.m.

WRITE PLAINLY.

QUESTIONS AND ANSWERS Miscellaneous.

VOTING ON BY-LAWS.

1. In voting on a by-law, where it takes a majority of the property owners on the last revised voters' list to carry it, will the name of a person who has since died count in the total vote?

2. Also a person selling his property and leaving the municipality, does his name count on the list?

3. If so, can he come back and vote? Ontario.

SUBSCRIBER.

Ans.—1. No. 2. No. 3. No.

TREES ON HIGHWAY.

I have a wire fence along front of farm on the line. Have levelled the side of road from fence to ditch, and seeded down, also planted a row of maple trees about a foot and a half from fence on road allowance.

1. Can people drive along on it with buggy or wagon, cutting it up, and probably injuring some of the trees?

2. If not, what could I do to prevent it?

3. Would the parties be liable to a fine?

4. If I put a few rails on it and a person drives along and injures his rig, am I responsible for the damages? Ontario.

Ans.—1, 2 and 3. Subject to the provisions of any local municipal by-laws on the subject, we would say that they might be prosecuted before a justice of the peace and subjected to a fine.

4. It is probable that you are.

OYSTER-SHELL BARK-LOUSE.

I have read in different issues of your paper about taking care of an old orchard, but it doesn't apply to my case. I have an orchard about fifteen years old, and some of the trees are almost dead with the bark-louse, and some of the limbs are dead at the end.

CONSTANT READER.

Ans.—The oyster-shell bark-louse is probably one of the most widely-spread insects we have in the Province, and it is doing serious damage to many orchards where spraying is neglected. The best way to deal with this insect is to spray the trees thoroughly before the buds open with the lime-sulphur wash. This is prepared according to the following formula: Fresh lime, 20 pounds; sulphur, 15 pounds; water, 40 gallons (1 barrel). The sulphur is made into a paste with warm water, the lime is slaked and added with about 15 gallons of water, the whole being thoroughly mixed by stirring. This should be boiled for at least an hour and a half, either over a fire or by means of live steam turned in from a boiler. This mixture should be strained into the spray barrel or tank, and be sprayed upon the trees while warm, care being taken to cover all parts of the tree, particularly the small branches upon which the scales spread every year from the previous year's wood. This mixture causes the scales to dry up and curl from the branch so that the wind blows them from the trees.

Good results have also been obtained by spraying the trees in the winter time with whitewash made of fresh lime, using about one and a half pounds of lime to a gallon of water. This should be strained before being put into the spray tank or barrel, and may be applied any time during the winter. It has an effect upon the scales similar to the lime-sulphur wash, but has not the beneficial effect of the lime-sulphur wash in destroying spores of fungous diseases, such as apple scab, which may be upon the branches.

The oyster-shell bark-louse may also be destroyed by spraying with kerosene emulsion, while the young lice are crawling from the shell to the newer parts of the tree. This takes place about the first of June. There is more or less danger, however, in using kerosene emulsion unless it is properly prepared, and it is much more difficult to apply at this season of the year when the foliage is on the trees than in the winter or early in the spring before growth begins.

Trees affected with the scale should be sprayed thoroughly with the lime wash or lime-sulphur wash for two or three seasons until the trees are entirely rid of them.

H. L. HUTT.

PLEASE MENTION THE FARMER'S ADVOCATE.