



**Brantford Galvanized**  
**ROLLER BEARING**  
**STEEL WIND MILLS**



SEND FOR NEW CATALOGUE

POWER AND PUMPING MILLS,  
 STEEL TOWERS AND FLAG  
 STAFFS, IRON AND WOOD  
 PUMPS, MAPLE LEAF GRAIN  
 GRINDERS, BEE SUPPLIES.

**THE COLUMBIA THRESHER**  
 A time and money saver for the farmer.  
 A small Thresher of great capacity that can be run by light power and operated by a few men.

Write for Illustrated Catalogue and Price List—FREE.

**BELLE CITY FEED and ENSILAGE CUTTER**  
 with blower carrier attachment. All sizes. Catalogue and latest book about ensilage sent free on request. Write for it.

**SWEEP AND TREAD POWERS**

BELLE CITY MFG. CO., Racine, Wis. Box 133

**WINDMILLS**

WE WILL SELL  
**Geared Windmills**  
 Fall Terms.

NOW ON  
 YOU CAN HAVE THE USE OF IT  
**ALL SUMMER WITHOUT COST.**

THE  
**CANADIAN STEEL AIRMOTOR**

IS NOW DEMONSTRATING ITS QUALITIES AT THE Glasgow Exhibition. WRITE US, OR SEE OUR LOCAL AGENT.

**Ont. Wind Engine & Pump Co., LIMITED, TORONTO.**

**David Maxwell & Sons,**

ST. MARY'S, ONT.

PATENTED

STEEL ROLLER BEARINGS, IMPROVED DETACHABLE LINK,  
 IMPROVED STEEL FRAME, COMBINED LEVER AND FOOT DRIVE.



Improvements you will not find on other churns. Do you want the best? Then don't purchase until you see it. Sold by the leading wholesale houses in the Dominion.

No.	CAPACITY.	Churns from
0	6 gl.	1 to 3 gl. cream.
1	10	1 to 5 "
2	15	2 to 7 "
3	20	3 to 9 "
4	26	4 to 12 "
5	30	6 to 14 "
6	40	8 to 20 "

SOLD BY ALL LEADING WHOLESALE HOUSES AND DEALERS. . . . .

**What Ails the Animal?**

If you have horses or cattle afflicted with any lump, swelling or enlargement, you can cure them with Fleming's Lump Jaw Cure.

Ordinary lumps usually removed by one application. Lump jaw once incurable, now cured by from one to three applications.

**FLEMING'S LUMP JAW CURE**

Every Bottle Guaranteed.

Cures Spavin, Curb, Splint, Ringbone, etc. A reliable blister and counter-irritant, and a certain horn-stop.

Institute, Muncey, Ont., July 25th, '99.  
 Gents.—Send another bottle of Lump Jaw Cure. The last was a success in a far advanced state of the disease.  
 Rev. W. W. SHEPHERD, per Secretary.

Our Illustrated Pamphlet on cure of Lump Jaw and other diseases should be in the hands of every farmer and stockman. Free to readers of this paper.

**FLEMING BROS., Chemists**  
 Room 1, 58 Bay Street, TORONTO, Ont.

**YOU SHOULD KNOW :**

That in the ten days preceding April 26th we sent out direct from our school

**SIXTEEN YOUNG MEN**  
**FOURTEEN YOUNG WOMEN**

into business offices in this city. This work is going on every month in the year—no vacations. You can enter any time and prepare in a short time for a good situation. CATALOGUES FREE. WRITE—

**CENTRAL BUSINESS COLLEGE, TORONTO.**  
 W. H. SHAW, PRINCIPAL. om

**NO SPAVINS**

The worst possible Spavin can be cured in 45 minutes. Curbs, Splints and Ringbones just as quick. Not painful and never has failed. Detailed information about this new method sent free to horse owners.

Write to-day. Ask for Pamphlet No. 1.

**FLEMING BROS., 58 Bay St., Toronto, Ont.**


**Spraying Potatoes with the Spramotor** 20 .. ACRES DAILY

Seems incredible that farmers should use old methods, when they can kill both Potato Blight and Bugs, in one operation. One man with a SPRAMOTOR can spray 20 acres in a day.

The SPRAMOTOR drives out a perfect mist spray, thoroughly covering the plants, and destroying every vestige of fungi and insect life. It's the only way to grow potatoes profitably, and will double the crops at a trifling cost.

Send your name, and we'll mail you free an 84 page Illustrated Treatise on Spraying, and full particulars of the SPRAMOTOR, which is saving the farmers of Canada thousands of dollars annually. It will spray other things too.

The Spramotor Co., London, Ont.



Spraying with the SPRAMOTOR will entirely eradicate Mustard. Full particulars in our book on spraying.

**A BUSINESS EDUCATION IS NECESSARY ON THE FARM.**

Mr. Daniel A. Campbell, of Port Elgin, Ont., says: "I could not have got along without it, and would not now part with the knowledge obtained for any amount of money. I find it just as useful to me on the farm as it was in business. When your business principles are applied to farming, it pays as well as any business, and is more independent. Every young man who wishes to succeed in any calling should have a business education, and the NORTHERN BUSINESS COLLEGE is, I believe, the best place in Canada to get it."

Write for catalogue and college journal, which contain many more such testimonials, to C.A. FLEMING, Principal, Owen Sound, Ont.

**CENTRAL Business College**  
 STRATFORD, ONTARIO.

A Commercial School of the highest standing. Our College has the reputation of doing the best work in business education in Canada to-day. Write for catalogue. W. J. ELLIOTT, Principal.

**Catalogue Printing our Specialty.**

Many of the best Catalogues in Canada are produced by us. Latest type faces, designs, ornaments, and modern machinery—Best in America. Up-to-date covers designed by special artists without extra charge.

**London Printing & Litho. Company, Ltd., LONDON, ONTARIO.**

**STAY AT HOTEL LELAND**

The Leading Hotel of the West.

ALL MODERN CONVENIENCES. RATES, \$2 to \$4 PER DAY. CUISINE SUPERB. BUS SERVICE ALL TRAINS.

**W. D. DOUGLAS, Prop., Winnipeg, Man.**

**Low, Wide-Tire Iron Wheels FOR WAGONS**  
 MADE TO FIT YOUR AXLES.

EVERY farmer should have a set for drawing hay, grain, corn, etc. Are lighter, stronger, and cheaper than wooden wheels. Write for price list.

**Dominion Wrought Iron Wheel Co., Toronto, Ont.**  
 9 & 11 Brock Avenue.



**SHOO-FLY**

**KEEPS FLIES OFF ANIMALS.**

FOR PROTECTING CATTLE, HORSES, DOGS, ETC., FROM FLIES OF ALL KINDS, GNATS, MOSQUITOES, FLEAS AND OTHER INSECTS.

SOLD IN CANS (QUART, 25c.; GALLON, 60c.) BY LEADING MERCHANTS.

PURCHASER PAYS EXPRESS CHARGES.

**WM. RENNIE, TORONTO.** DIRECTIONS ON ALL CANS.

**TORONTO ENGRAVING CO.**  
 92 BAY ST  
 CUTS BY ALL PROCESSES  
 LIVE STOCK A SPECIALTY.

**GOOD ROADS MACHINERY CO. (Reg.)**  
 JOHN CHALLEN, Mgr., HAMILTON, CAN.

"CHAMPION" Road Graders, Rock Crushers, Road Rollers, Street Cleaners, Macadam Spreading Wagons, Road Plows, Wheel and Drag Scrapers. Twentieth Century Catalogue now ready.

**GOOD ROADS MACHINERY CO., HAMILTON, CANADA.**

**DOMINION LINE STEAMSHIPS**

PORTLAND TO LIVERPOOL.

DOMINION. VANCOUVER. CAMBROMAN.

Large and fast steamers. Electric light. Saloons amidship.

Fast trains to Portland in connection with sailings of steamers. Superior accommodation for all classes of passengers. Try the Portland route, and view the fine White Mountain scenery.

The second-saloon and third-class accommodation has received the Company's special attention.

Rates of passage same from Portland as Montreal. Passengers supplied with free railway and sleeping-car tickets, Montreal to Portland.

For rates of passage and all information, apply to any agent of the Company, or

**DAVID TORRANCE & CO., GENERAL AGENTS,**  
 17 St. Sacramento St., MONTREAL. 10 Commercial St., PORTLAND.


ONTARIO FARMERS' FAVORITE.

COSTS NO MORE THAN THE OTHER, AND IT'S VASTLY BETTER. WON 12 GOLD MEDALS FOR ITS SUPERIORITY IN STANDING SEVERE TESTS OF WEAR, CLIMATE CHANGES, AND SAVING OVER OTHERS. JUST ASK YOUR DEALER FOR

**"PEERLESS" MACHINE**

IT'S WORTH REMEMBERING.

**QUEEN CITY OIL CO., Limited, TORONTO.**  
 EARL EDWARDS, PRESIDENT.



**LIGHTNING WELL MACH'Y PUMPS, AIR LIFTS, GASOLINE ENGINES, THE AMERICAN WELL WORKS.**  
 AURORA ILL. CHICAGO, W. DALLAS, TEX.

**Mason & Risch Pianos**

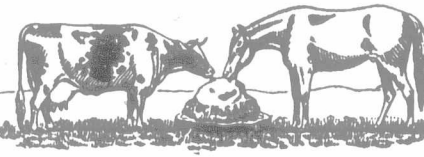
Will suit you in every respect. Prices to suit. Some second-hand ones of different makes at greatly reduced prices.

PIANO PARLORS:  
**211 DUNDAS STREET, LONDON.**  
 PLEASE MENTION FARMER'S ADVOCATE.

**\$3 a Day Sure**

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

**IMPERIAL SILVERWARE CO., Box 419, WINDSOR, ONT.**



**ROCK SALT** for horses and cattle, in ton and carlots. o Toronto Salt Works, Toronto.

The  
**Farmer's Advocate**  
and Home Magazine.

"PERSEVERE AND SUCCEED."

ESTABLISHED 1866.

REGISTERED IN ACCORDANCE WITH THE COPYRIGHT ACT OF 1875.

VOL. XXXVI.

LONDON, ONT., AND WINNIPEG, MAN., JUNE 15, 1901.

No. 528

EDITORIAL.

**The Greatness of Agriculture.**

At the recent dedication of the splendid new agricultural building in connection with the University of Illinois, Hon. L. H. Kerrick struck a note that should dominate the thinking of every Canadian as well as every American farmer, namely, that of all secular business or pursuits, agriculture is the greatest and most honorable.

Right-thinking and discerning men have deplored the trend of people and institutions away from the farm, farm life and the invigorating influences of nature, till to-day there are too few people in the country and too many in the city. There are not enough on the farm to do the work well and comfortably, while in the city there is crowding, poverty and strikes. These desperate struggles, with bloodshed and ruin in their train, while accentuated by a mad and selfish race for wealth, and precipitated by various means, have their foundation in too many people needing the same job. The trend of the schools has been away from the farm, teaching its sons and daughters anything and everything but what they require to make that life attractive, satisfying and successful. To say that the so-called learned professions are full, pressed down and running over, said Hon. Mr. Kerrick, gives but a hint of their actual condition. In addressing a graduating class of Chicago University, President Harper said to the successful graduates before him:

"You are now entering the world, and you will find that poverty will be the strongest opponent to overcome. You who are entering life as lawyers need only to look at the papers to-day to find that the average lawyer does not earn his salt. Those who will become physicians will find that their only companion for a few years to come will be the wolf at the door; while those who go forth to teach, need only to witness the struggles of the school teachers in this city. The School Board is beset with howls and wails for an increase of salaries."

What a prospect for the brilliant students of a great university, and that too in one of the largest, richest, and most thriving of American cities! Imagine President Mills saying to a class graduating from the Ontario Agricultural College:

"Gentlemen, you are going out to the farms. You have not mastered the whole of agricultural science: that will not be done by any living or yet to live; but you have done your work well in the college, and you are well equipped for your business. However, I feel obliged to say to you that poverty will be the strongest opponent you will have to overcome. The average farmer is not earning his salt—that is, for his personal consumption, mind you, let alone the cattle and horses. The only companion you will have for some years to come will be the wolf at the door."

Or imagine, if you can, such a speech from the superintendent to the graduates of any of our Canadian dairy schools, or the School of Horticulture at Wolfville. Human imagination is capable of some great stretches, but it is unequal to flights of this description.

If the FARMER'S ADVOCATE reads aright the signs of the times, and we believe we do, a change is coming over the spirit of the people. Already there is discernible the beginnings of a return to agriculture, a recognition of its primal importance, and also that it is a business requiring business training; that it is an art requiring skill, and that it is the most all-comprehending of sciences. It affords ample scope for the best natural abilities and attainments, and full scope for the best development of manhood. Many have failed because they did not appreciate farming at its par value. In some measure the farmer is responsible for the way in which too many have looked upon his avocation. How can we expect others to esteem a calling for

which we seem to have so little regard ourselves? There is a change, too, coming over the spirit of educators. Everywhere we find them turning their attention to "nature study" and natural science. Schools and colleges of agriculture are being thronged, and never before was there so much real interest manifested in the agricultural experiment station as to-day. Comparatively new, these institutions of instruction and research, which must ever go hand in hand, are abundantly proving their value, and in proportion to the skill, vigor and judgment with which they are conducted, will they win friends and give a generous return for the expenditure involved.

**The Question of Advertising.**

To be frank with our readers in dealing with questions affecting the interests of the farmer, or the public generally, has been one of the characteristics of the FARMER'S ADVOCATE. To plainly say what one believes to be right has not always been agreeable, but it has been wholesome. Consequently, frankness in saying a few words about the business of advertising, which concerns so many of our readers and patrons, will hardly leave us open to the charge of "talking shop." This is an age of publicity, of widespread interests, far-reaching intercourse, rapid communication. Men do not live to themselves now. They cannot do so. The wants of primitive men were few and simple. Not so to-day. Modern customs and methods have revolutionized and superseded the methods of the past, and the business man who fails to make himself known and take the public into his confidence by advertising is as great a wonder as the man who formerly launched out as a leader in that respect. The volume of trade transacted by mail is enormous. Human needs exist everywhere, and advertisements give information which thousands of people want. It is now a recognized axiom that no business can afford to ignore advertising. This is true of matters outside of what is usually styled "business." To illustrate: As many of our readers may remember, when the last India famine was on, the manager of the *Christian Herald*, of New York, undertook to raise a relief fund, and in connection with his published audited statement, he now mentions as one noteworthy feature that an investment of \$8,320 in making known his effort by advertisements in good periodicals resulted in inducing contributions to the fund to the extent of \$96,901, or eleven times the original outlay. Instances might be cited, of course, where in ordinary business advertising vastly greater returns, proportionately, were secured, but the lessons to be deduced are the same. The public had confidence in Dr. Klopsch, he presented a good case, he utilized advertising space liberally in papers of good standing and weight, circulating largely among a superior class of people, and the advertisements were skilfully written and well illustrated. Such periodicals could not afford to sell him space as cheaply as some others, but he knew that it would pay much better. And so it proved. Right at this point the experience of one of our oldest and best patrons is instructive. He told us that he was once induced to invest in space in a sheet purporting to have a considerable circulation, though evanescent in character, and for a time received many enquiries; but no business developed therefrom, directly or indirectly. Being a "Cheap John" class of paper, it had attracted a non-progressive, "Cheap John" class of readers, who, if not actually on the "beat," were very close to the line, being only on the lookout for bargains—\$1.00's worth for 50 cents. "I soon found it," said he, "to be a poor and ineffective medium, and, of course, dropped it."

Of all modern plans by which the seller would reach customers for the disposal of manufactures, live stock, agricultural products, or goods of whatever sort, advertising in papers of good repute seems to have become the most pronounced and successful, and for business with or between farmers the agricultural journal naturally best fills the bill. Their readers are educated as to the great value of improved stock, appliances, etc., and the natural medium of reaching them is through such periodicals. Such announcements should be honestly made, and good faith invariably kept with the customer, who should treat the advertiser in a square and reasonable manner, giving the paper due credit in writing the advertiser. The latter will enhance the value of his advertising space to himself by using attractive phraseology, frequent changes of wording (never letting announcements grow "stale"), and the judicious use of engravings which catch the eye. The stockmen should keep us posted as to the disposal of notable animals, and the general advertiser, of any special features cropping up in his trade.

Advertising, like manuring, has an accumulative value; but, as every farmer knows, for steady returns the applications must be regularly repeated. When we desire to enforce any sound principle or practice in farming or stock-rearing, we find it necessary to repeat it, "line upon line," impressing the truth in new forms issue after issue. From new readers or forgetful old ones we receive among the scores of questions reaching us every week for answers the same ones again and again. Repetition is a necessity. The public is forgetful. No matter how well carried on otherwise, a business must be kept in the public eye or drop speedily out of sight. This, of course, does not apply to announcements of a purely transient character.

As is the case with many other periodicals keeping a superior standard in view, the FARMER'S ADVOCATE finds it necessary to decline a very large amount of advertising every year, which is either of an unclean character or which we have reason to believe is fraudulent in its nature. In the long run, a clean and honest business is the only sort it will pay to cultivate. Three parties are naturally concerned in advertising: the person with something to sell, the one who desires to buy, and the publisher who prints the announcement, and the transaction must be satisfactory to all three. To accomplish this the principles which we have outlined must be closely adhered to.

**The Solid Security of Improved Live Stock.**

Confidence in the future of the industry of breeding pure-bred cattle of both the beef and dairy breeds has been materially strengthened by the results of the recent public auction sales of Herefords, Shorthorns and Jerseys reported elsewhere in this issue. Following close upon a great combination sale of Herefords in Chicago last month, at which the record price of \$5,000 for a cow of this breed was realized, and an average for ninety-eight head, of \$343, we have the Cooper sale, in Pennsylvania, of imported Jerseys, at which a bull was sold for \$3,500, and a cow for \$2,775, and an average scored of \$451 for one hundred and eight head. Close on this we have the sale of Shorthorns from the herd of Mr. Ward, of Iowa, at which \$2,500 was paid for a cow, and an average price of \$725 was recorded for forty-five head; and following on the heels of this the disposal of fifty-nine head in the combined offering of fifteen head from each of the noted Canadian Shorthorn herds of Messrs. Flatt, Cargill, Cochrane, and Edwards, at which an average of \$748.33 was made for the fifty-nine head sold, the

# THE FARMER'S ADVOCATE

## AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN  
THE DOMINION.

TWO DISTINCT PUBLICATIONS—EASTERN AND WESTERN.

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

EASTERN OFFICE:  
CARLING STREET, LONDON, ONT.

WESTERN OFFICE:  
MOUNTAIN BLOCK, MAIN STREET, WINNIPEG, MAN.

LONDON, ENGLAND, OFFICE:  
W. W. CHAPMAN, Agent, Fitzalan House,  
Strand, London, W. C., England.

JOHN WELD, MANAGER.

1. THE FARMER'S ADVOCATE is published on the first and fifteenth of each month. It is impartial and independent of all cliques or parties, handsomely illustrated with original engravings, and furnishes the most profitable, practical and reliable information for farmers, dairymen, gardeners, and stockmen, of any publication in Canada.
2. TERMS OF SUBSCRIPTION—\$1.00 per year in advance; \$1.25 if in arrears; sample copy free. European subscriptions, 6s., or \$1.50. New subscriptions can commence with any month.
3. ADVERTISING RATES—Single insertion, 30 cents per line. Contract rates furnished on application.
4. DISCONTINUANCES—Remember that the publisher must be notified by letter or post-card when a subscriber wishes his paper stopped. All arrears must be paid. Returning your paper will not enable us to discontinue it, as we cannot find your name on our books unless your Post Office address is given.
5. THE ADVOCATE is sent to subscribers until an explicit order is received for its discontinuance. All payments of arrears must be made as required by law.
6. THE LAW IS, that all subscribers to newspapers are held responsible until all arrears are paid and their paper ordered to be discontinued.
7. REMITTANCES should be made direct to this office, either by Registered Letter or Money Order, which will be at our risk. When made otherwise we cannot be responsible.
8. ALWAYS GIVE THE NAME OF THE Post Office to which your paper is sent. Your name cannot be found on our books unless this is done.
9. THE DATE ON YOUR LABEL shows to what time your subscription is paid.
10. SUBSCRIBERS falling to receive their paper promptly and regularly will confer a favor by reporting the fact at once.
11. NO ANONYMOUS communications or enquiries will receive attention.
12. LETTERS intended for publication should be written on one side of the paper only.
13. WE INVITE FARMERS to write us on any agricultural topic. We are always pleased to receive practical articles. For such as we consider valuable we will pay ten cents per inch printed matter. Criticisms of Articles, Suggestions How to Improve the Advocate, Descriptions of New Grains, Roots or Vegetables not generally known, Particulars of Experiments Tried, or Improved Methods of Cultivation, are each and all welcome. Contributions sent us must not be furnished other papers until after they have appeared in our columns. Rejected matter will be returned on receipt of postage.
14. ALL COMMUNICATIONS in reference to any matter connected with this paper should be addressed as below, and not to any individual connected with the paper.

Address—THE FARMER'S ADVOCATE, OF  
THE WILLIAM WELD COMPANY (LIMITED),  
LONDON, CANADA.

forty-nine females making an average of \$816, and Mr. Flatt's offering averaging \$1,073 each, beating his own record of \$793 for fifty-six head made at his sale in August of last year, and thus holding the highest record of average prices for any breed of cattle on the American continent during the last eighteen years. An encouraging feature of these last sales is the fact that no sensational prices were paid for individual animals, but that the prices were uniformly good, and that the high averages were not made mainly by phenomenal figures for a few, but by the even, healthy tone of values that prevailed throughout the list. The disposal of one hundred and four head of cattle in two days, including the Canadian offerings and the Iowa contribution, for \$76,800, or an average of \$738, is certainly a remarkable performance, and coming, as it does, at the conclusion of the greatest sale season seen in many years, it denotes that the demand for good cattle is better than ever, and that the future holds nothing but good promise for the breeder. The safe foundation of this strong demand for good breeding stock lies in the increasingly healthy condition of the dairy and meat industries.

The enterprising Canadian breeders who have so well done their part in making possible the presentation of such a record of prices for pure-bred cattle by risking their money in the importation of high-class animals, by praiseworthy persistence in overcoming the vexatious restrictions imposed for selfish ends upon the business by interested officialdom, by placing the stock on the market in healthy and attractive condition, and by honorable business methods, have performed a patriotic act and conferred a distinct public benefit in maintaining the

good reputation of the Dominion for enterprise and skilful management in producing and presenting before the Western world the highest types of improved stock. In doing this they have practically increased the value of every creditable pure-bred animal in the hands of the smaller breeders, as well as those of more extended reputation. In the last analysis, profitable production and high quality of food products determine animal values; therefore, the event was a fresh and striking demonstration of the real value to the country of improved live stock.

### The Pan-American.

A representative of the FARMER'S ADVOCATE recently visited the Pan-American Exposition at Buffalo, N. Y. The gates had been open to the public for a month, and yet the general appearance of the grounds and buildings was most chaotic. Many of the asphalted roadways had, evidently owing to the fault of workmanship, given way under the heavy teaming, and would require complete renewing. A number of the buildings were still unfinished, and very few of the exhibits were in place. An army of workmen—carpenters, painters, moulders, gardeners and laborers—were at work, and doubtless everything will be in shape early in July. When all is complete, the general effect will doubtless be very attractive. The designs and coloring of the buildings, the statuary, the canals and fountains, the lawns, trees and flower borders will combine to make a most effective scene, and most beautiful of all is the electric lighting, which is on a scale surpassing anything ever before attempted. In comparison with the Chicago World's Fair, the Pan-American is about one-third in extent, and being confined to the American continent, the exhibits do not cover so vast and varied a collection. There is, nevertheless, much of interest, and when all the exhibits are in place, a trip to the Rainbow City will well repay the visitor, though, of course, knowing the outstanding merits, especially in substantial features, of our great Canadian exhibitions, these will not be neglected for the show across the way.

At the time of our visit, the Dominion building was not completed, but the forestry and fruit exhibits made by the Province of Ontario were among the few completed exhibits in their respective departments, and very creditable displays are made.

In the agricultural building, Manitoba had completed the preparation of its exhibit, which, though not very elaborate, was neat and practical, and favored with a good location.

The model dairy is a small building, fairly well arranged, and the cows seemed comfortable and settling down to business. Here Canada bulks largely, as the majority of the entries of dairy cows are contributed by Ontario. In addition to the contingent of Ayrshires, Jerseys, Guernseys, Holsteins, Quebec Jerseys and Shorthorns from Canada, there are only a few representatives of Brown Swiss, Red Polls, and Dutch Belted.

### Our Scottish Letter.

THE GLASGOW INTERNATIONAL EXHIBITION.

The great International Exhibition organized in Glasgow to celebrate the opening of the twentieth century has now been going for twenty-five days, and the record of attendance during that period has been 1,708,726, or practically double the attendance recorded for the same period at the exhibition of 1888. We thought that a great affair. It left a large surplus, which formed the nucleus of the money expended on the Fine Art Galleries, the completion of which has been coincident with the holding of this exhibition. So far as financial success is concerned, the show of 1901 has already made its mark, and the main question is: How does it stand as an industrial display? It is unfortunate that so far as the vast mass of those who attend such shows are concerned the amusement department counts for almost everything. Still, it is gratifying as one passes through the halls to see so many exhibiting an intelligent interest in the exhibits.

Machinery, of course, bulks very largely in any show held in Glasgow, and shipbuilding is splendidly represented. Many other departments could be singled out for special notice, but it is not the province of this writer to do so. The agricultural department is good as far as it goes, but it does not go very far, and the house across the way, in which the Canadian agricultural department is to be seen, makes a much better display. The agricultural department proper is laid out in the form of a model farmstead, the buildings for which are of composite wood and iron, supplied as a complimentary exhibit to the Association by Messrs. Speirs & Co., 125 West Regent St., Glasgow, who make a specialty of this kind of work. It is admirably adapted for the erection of buildings designed to stand for a fair length of time, and should be in general use in Canada. The contract for the imple-

ments furnished to the steading has been secured by John Wallace & Sons (Ltd.), Glasgow, who are the West of Scotland agents for the Massey-Harris implements, and the famous chilled plow patented by James Oliver, of South Bend, Indiana. The equipment is what is needed on an ordinary farm in the west or south-west of Scotland. A fully-equipped dairy is part of this exhibit, and it is in the hands of the Glasgow Dairy Co. (Ltd.). The whole is a fair illustration of what is designed—perhaps the best thing about the buildings being the system of byre ventilation shown. This is a question of pressing interest in Scotland and England, on account of the regulations now being enforced under recent sanitary laws. The system of ventilation illustrated has been put in operation on various farms, and works well. Its main feature is a movable shutter under one control, by which the ingress of fresh air can be regulated a little above the level of the cows' heads. Many Canadian visitors will, no doubt, look at this during the period that the exhibition is open.

The other department restricted to agriculture is what is called the Agricultural Hall. It is of two rooms, the most prominent exhibit in the one being that of the German Potash Syndicate, Leopoldshall-Stassfurt, Germany, and in the other that of the Permanent Nitrate Committee, in both of which admirable illustrations are given of the working of the raw material and its resolution into the manurial substances with which progressive farmers the world over are so familiar. The exhibit of the Potash Syndicate is a very fine thing indeed, and the information set forth is both theoretical and practical in no ordinary degree. A study of the various items in this exhibit is a liberal education in the science of manuring. The West of Scotland Agricultural College has an exhibit, the strong point of which is its bacteriologicalfulness. Various microscopes are fitted up, underneath which are shown the working of the minute forms of germ life which are now known to exercise so potent an influence in the lives of man and beast. The Agricultural Research Association, of Aberdeenshire, makes a very good use of its space illustrating its contributions to agricultural knowledge during the past twenty-five years. It was the Director of this Association, Mr. Thomas Jamieson, F. I. O., who first discovered and insisted on the effective use of ground phosphates, thus paving the way for the production and profitable employment of basic slag as a top-dressing for grey or peaty land. The development of the slag industry is shown in an exhaustive exhibit by Messrs. Alex. Cross & Sons (Ltd.), Glasgow, who do a big business in this material. The slag is shown in lumps (raw), ground, and in bags, and the lessons to be learned are invaluable to those who are interested in this comparatively recent and most useful, although, according to our present knowledge, most erratic manure. These three exhibits, illustrating the origin, manufacture, and application of potash, nitrate of soda, and basic slag, are most important parts of the exhibition, and can be recommended for profitable study.

Touring through the exhibition, one is struck by the fulness with which the products of Canada are presented. Indeed, there can be no doubt that Canada makes the best agricultural display on the ground, alike in respect of the produce of the soil and the tools or machinery employed in its production. The exhibits from Canada are on show both in the Industrial Hall and in the building specially set apart for Canadian exhibits. It would take up too much space to attempt to describe all that may be seen in the former department, but standing alongside of the displays from other countries and colonies, the Dominion shows to good advantage. The exhibits here illustrate the educational advantages of the Dominion, what is being done for secondary and technical instruction, and the fruits and products of this enterprise. A. F. MacLaren, Imperial Cheese Co. (Ltd.), Toronto, occupy a good space, and to excellent purpose. There is cheese from Manitoba, and numerous exhibits of honey from Ontario. The Geological Survey Department of the Government make an effective display of the mineral wealth of the Dominion, showing minerals from Nova Scotia, gold from the Yukon, coal and coke from British Columbia, and great blocks of coal from the Atlantic seaboard. The women of Canada are not forgotten here, and a plentiful supply of literature is provided regarding many of the noble members of the gentle sex whose names adorn the records of Canadian achievements.

In respect of literature, nothing better appears in the official catalogue than the introductory account of Canadian products, which precedes the list of exhibits. The information regarding the Dominion is well put together, and those who take the pains to read it will learn much regarding the resources of this great part of the King's dominions. The agricultural progress of the Dominion is sufficiently indicated by the broad fact that the area sown with wheat in 1900 was double the wheat area of 1890. Its industries are classified thus: (1) agriculture, (2) fisheries, (3) timbering, (4) mining. It is startling to be told that the output of gold in the Yukon has increased from \$300,000 in 1897 to \$20,000,000 in 1900. But what chiefly impresses one who visits and inspects the Canada house is the fact last stated, viz., that there are in the Dominion a dozen large factories making agricultural implements. The dozen have every reason to be proud of the display made in "Canada" here. The most exhaustive and instructive country show in the whole exhibition.

so far as one can see, is that of Canada. The Russian courts promise to be something very fine, but they are not yet finished, and opinion on them must be suspended.

In the center of the buildings is a tower formed of the agricultural produce furnished by 250 farms in different parts of the Dominion. The inside of this tower contains exhibits of the Central Experiment Farm at Ottawa, notably tobacco leaf, wool, flax, etc. Surrounding it, forming one of the most artistic towers in the whole exhibition, is the produce of the 250 farms already mentioned. This is catalogued as "a collective exhibit of cereals and forage plants contributed by 250 farmers of Canada." I do not know who may have arranged these products as they appear in the center of the house, but he has great credit by his work. The artistic and imposing erection at once attracts the eye, and any amount of time might be profitably spent in an examination of the details. Glass cylinders there are in abundance, containing all kinds of grain, and each is labelled, showing its place of origin and value. Another interesting produce exhibit shows the apples and other fruits which have been kept in cold storage since season 1900. They look very well indeed, and have many admirers. An obliging attendant explains the meaning of the exhibit. Again, there are numerous exhibits of samples of vegetables and fruit preserved in antiseptic fluids, and looking fresh and sweet. The timber exhibits from all parts of the Dominion attract numerous visitors, and an intelligent artisan may be seen admiring and heard exclaiming, "Man, but it's grand stuff!" All kinds of timber made up is shown, the strongest exhibit of this kind being that of the Peterboro Canoe Company, Peterboro, Ont. The Canadians can build canoes. We see nothing like these in this country. Another very fine exhibit is that of the Metallic Roofing Company of Canada, Toronto. Few more interesting exhibits than this are in the show.

After all is said, however, the best part of the Canadian exhibit is the section devoted to agricultural implements. The Massey-Harris Co. (Ltd.), Toronto, are very strongly in evidence, and show some of the finest implements ever presented to the British public. Besides their famous harvester and self-binder, which is in high favor in this country, they show cultivators, hay tedders, and what not, the whole making a most effective appearance along one half of one side of the hall. David Maxwell & Sons, St. Mary's, Ont., are not much behind them, and their display occupies almost as much space on the other side of the hall. Noxon & Co. (Ltd.), Ingersoll, Ont., and the Frost & Wood Co. (Ltd.), Smith's Falls, Ont., are other exhibitors who contribute to the success of the whole.

There can be no doubt at all that the best agricultural display at Glasgow is made by Canada, and what I have said by no means exhausts all that might be said on the subject. Canadians need not be afraid to visit Glasgow; their share in the exhibition is bound to increase the popular knowledge about Canada. She may be the "Lady of the Snows" along her northern boundary, but no region of snows could produce the marvelous wealth and prodigality of Nature displayed alike in "Canada" and the Industrial Hall. In comparison with the rest of the exhibition, Canada has made a splendid display, and we thank all who are responsible for it.

"SCOTLAND YET."

Word has reached us of a Toronto girl in Muskoka who, seeing a farmer's wife wringing a hen's neck, is organizing a movement to have fowl chloroformed before being killed. It would be a kinder way of doing it, certainly, but we fear it will not be generally adopted.—*Toronto Star*.

The term, thoroughbred, is often used by stockmen in connection with cattle, sheep, swine, poultry, and dogs. Such use of the term is incorrect. A Thoroughbred is a running horse. Pure-bred is the term to apply to pedigreed stock, whether horses, cattle, sheep, swine or poultry.

The year-old colt resembles his sire and promises to make a good horse when he matures. Do not save him from the surgeon's castrating knife unless he is both pedigreed and a good one. Careful selection and relentless culling will aid in keeping the stock up to the high-water mark. The same will apply to the ram lamb, the bull calf or the boar pig. Never allow any male animal to procreate his kind. Unless he is well bred and a good individual. Neglect of these precautions means certain loss.

## STOCK.

### "A Fruitless Mission."

The above is the heading which the English *Live Stock Journal* places over the following strong statement of the case of the British stockmen against raising the embargo upon Canadian cattle. The *Journal* represents a powerful body there, and the position taken shows the serious difficulty which Hon. Mr. Fisher, now in England, is encountering. It shows that should he not succeed there will be no good ground for a political outcry against him on that score, and if he does it will be all the more to his credit. The keeping out of disease is the main contention of the *Journal*, but the economic question and the fear of troubling the raiser of Irish stockers are equally potent:

"We have read with regret the following statement reported from Ottawa:—'In the Dominion House of Commons on Thursday, Mr. Fisher, Minister of Agriculture, announced that a strong memorandum to the British Government, protesting against the continuance of the embargo on Canadian live cattle, was now on its way to England, and would be followed up by personal representations when he arrived there, as he shortly would. Mr. Fisher said that since the embargo had been imposed, 800,000 Canadian cattle had been exported to England, and there had not been one case of pleuro-pneumonia.' It is, in our opinion, unfortunate that this question should be raised at the present juncture. It will certainly meet with strong opposition from most of those in the United Kingdom who are

pneumonia. Under this law Canada had enjoyed the privilege of sending here living animals that were not subject to slaughter at the ports of landing. But a disease was found among the Canadian imported cattle which the Government and some other experts could not distinguish from the familiar contagious pleuro-pneumonia. Consequently, the privilege was withdrawn and Canadian imports were placed on the same footing as those from the United States and South America, the stock being landed only for slaughter at the ports. The authorities here never asserted that pleuro-pneumonia existed in Canada; they could only go on the evidence before them in the animals actually landed, and how the disease came to be among them it was no part of the duty of the home Government to discover.

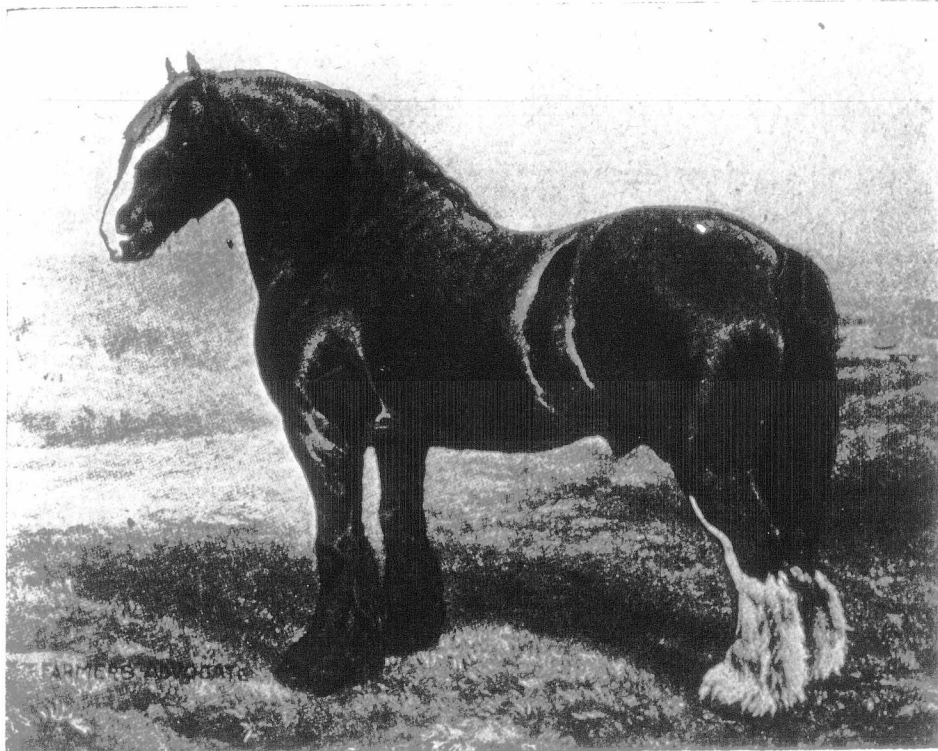
"If the same law still prevailed here, Mr. Fisher, the Dominion Minister of Agriculture, could with strict accuracy refer to the 'embargo on Canadian live cattle.' But he seems to have overlooked the fact that the law has since been greatly altered and strengthened. After pleuro-pneumonia was, at enormous expense, stamped out in this country by the slaughter of all diseased and in-contact animals, an Act was passed in 1896 repealing those portions of the Diseases of Animals Act, 1894, which provided for the exemption of animals by order of the Board of Agriculture from the rule as to slaughter at the ports of landing in cases where the Board were satisfied as to the safety of making such exemption for the time being. The Act of 1894 was in a sense a permissive measure, whilst that of 1896 is obligatory, as it renders compulsory the slaughter at the ports of debarkation of all imported animals that are allowed to be landed alive. There is, therefore, no special 'embargo' on Canadian cattle. Canada is in the same category as all other countries similarly circumstanced, and enjoys the privilege that her cattle and sheep can be landed for slaughter at the ports, all other countries except the United States and Canada being absolutely prohibited from sending live animals to these shores.

"There can be no doubt that the Act of 1896, which came into operation on January 1st, 1897, has conferred immense benefit upon the breeders of live stock in the United Kingdom by preventing the importation of disease, and thus imparting confidence to them that their property will not be destroyed. It is true that, in spite of the Act, there have been a few isolated cases of foot-and-mouth disease, which have been kept under control by the Veterinary Department of the Board of Agriculture, and it is hoped that this disease has been finally stamped out. The circumstances seem to point in these cases to the importation of the disease by mediate contagion and in an attenuated form. But if the Argentine Republic had had free access for their stock to the interior of the country when disease broke out in South America, it is to be feared, judging from analogy, that we should have had a disastrous attack of the disease, because the first we should have heard of it would have been by its appearance in a widespread and virulent form among the herds and flocks of the country. There is a striking object-lesson for us in the recent experiences of the Argentine. That

country continued to import cattle from France long after it was known that foot-and-mouth disease existed extensively there, and the result has been the temporary collapse of the Argentine export trade and the loss to us of the valuable traffic in pedigree stock, though we hope that both may soon be restored.

"With an unrestricted over-sea trade in live stock that are unrestricted to be distributed in the interior of a country, there is indeed no possible safety. Disease of one sort or another is certain to appear sooner or later, and to declare itself only after the mischief has been done beyond recall. The gigantic efforts that have been put forth to clear this country of these maladies would have been without result if the ports had not been closed, and the only safety is in having imported stock slaughtered on landing by a permanent and unalterable law. There is much to be urged in favor of an international dead-meat trade, but the arguments for it are based upon other grounds than those of safety, and so we have little to say about them. As has been remarked, Canada and the United States are at present the only two countries that enjoy the privilege of sending stock for slaughter on landing, and we think Canada would do well to be content therewith. There appears to be nothing that can be urged in favor of the admission of Canadian live stock that cannot be put forward with equal emphasis in support of a similar plea by the United States, and if Canada's claim were acceded to, and the Act of Parliament repealed, cattle and sheep from the United States would be admitted also, so that the exclusive privilege to Canada, even if she succeeded, would be a short-lived one.

"But we would rather not contemplate such a possibility, which would, in the first place, ruin the



HAROLD 3703.

A noted English Shire stallion. Died April, 1901: aged 20 years.

interested in the breeding of live stock, and before any reversal of the present policy as regards the admission of live stock from over sea could take place, a legislative enactment would have to be repealed which has been hailed as the charter of British stock-breeders, and which was only secured after many years of arduous struggle. We have taken the liberty of describing by anticipation Mr. Fisher's mission as fruitless, and we sincerely trust that this will prove to be an accurate forecast. The revival of this controversy now is especially regrettable, because in the mother country there is at the present moment an earnest desire to open up closer relations with the Colonies as a recognition of the very valuable services they have rendered in the war in South Africa. There is a growing feeling in favor of more intimate relations with the Colonies in many ways, and how far this may go no one can foresee, but everyone wishes that the union of interests may be greatly deepened and strengthened. Consequently, it is much to be deplored that the first active movement taken should be upon a question that will rightly meet with great opposition from an influential class, because it involves the upsetting of a law which is regarded by the majority of agriculturists (except those who are chiefly concerned in being able to buy store stock cheaply) as an absolute necessity for the preservation of the health of the herds and flocks of the United Kingdom.

"At the time when Canadian store cattle were excluded from this country the law in operation invested the Board of Agriculture with discretionary power to admit live animals for distribution in the interior of these islands from countries that they were satisfied were free from such maladies as rinderpest, foot-and-mouth disease, and pleuro-

breeding interests in this country. Farmers would, to a considerable extent, cease to breed cattle and sheep, and would rely upon the half-fattened stores from the United States and Canada. Should an outbreak of disease follow, the few who had kept up breeding herds would reap a rich harvest, as prices would go up to famine rates, and the meat supply of the community would be raised to such exorbitant values as have not been experienced for generations. The consumers equally with the producers,

**Bath and West of England Show.**

This leading agricultural show was held on May 21st and following days, at Croyden, Surrey, and whatever may be the financial result, there can be no question of the high merit of the capital entry made in all its sections.

The agricultural horses were practically all Shires. Some few classes were open for any breed, but those did not fill. Lord Rothschild's stud was very successful, the medal for best mare or filly going to Dorothy Drew, a grand three-year-old, of his stud. Lord Rothschild and Messrs. J. P. Cross, A. Ransom and Walpole Greenwell were the principal winners.

There were capital classes of Hunters, and a poor display in the Army Remount classes; but those open for Hackneys were well patronized, Mr. H. Livesey's stud being well represented, winning the champion medal for mares and fillies with that noted mare, Surprise, who had by her side a grand foal by the champion McKinley.

Devon cattle, the rubies of the west country, are always strongly represented at these shows, and this year's entry of twenty-eight were of great merit.

Shorthorns made not only a large display, but one of fine quality. Scotch blood was very successful, and there were many real good and typical Shorthorns. Mr. Henry Dudding was to the fore in bulls, and should have also been in the same position with heifers, but luck was against him. Mr. G. Harrison won, amongst other honors, the bull championship with the roan Duthie-bred yearling, Silver Bell, by Silver Plate; Mr. Dudding being r. n. with Ingram's Perfection. Col. Makins and Lords Rothschild and Tredegar were principal

winners in the cow classes, and Lord Calthorpe and Messrs. J. Deane Willis and J. Colman in the heifer class.

The Hereford classes were of very high merit and quality. The Earl of Coventry, in the older bull class, took the leading place; Mr. S. J. Tudge in the young bull class, with Mr. A. E. Hughes at the head of a real good class of bull calves. The four female classes were headed by Mr. J. Tudge in two cases and Mr. R. Green in the other two.

land will find their southern confrères taking the lead. Mr. R. W. Hudson, Rev. C. Bolden, J. H. Bridges, and Sir J. B. Maple, Bart., M. P., were the leading winners.

Both Jerseys and Guernseys came out in great force; in fact, these two breeds, as a rule, make larger entries at these shows than elsewhere, and no better opportunity can be taken by those who are desirous of seeing these breeds to their best advantage than to pay a visit to the annual show of this society.

The little black and brown Kerry and Dexter-Kerry cattle were shown in good numbers, and their small, compact forms form a very pleasing and instructive feature of the show.

**THE SHEEP.**

The Cotswold breed made a small entry, of high merit. Mr. W. Houlton won for rams, and Mr. R. Swanwick for ram lambs and yearling ewes.

Southdowns made a notable entry, of high merit. The classes were large and good, the most noticeable absentees being the Pagham Harbor Co. and Mr. F. N. Hobgen, who do not come out until the Royal Counties Show, week after next. Mr. G. Courtauld, an Essex breeder, took premier honors in the yearling ram class, the Earl of Ellesmere being next. In the ram lamb class, Col. McCalmont's flock, whose advertisement will be found in the FARMER'S ADVOCATE, took without question first and second for ram lambs, with two grand pens: Mr. C. Adeane being next. The ewe class fell to the Earl of Cadogan and Col. A. F. Walter.

The Hampshire Down classes were of a very high character, Mr. James Flowers' noted flock taking first right through, his yearling ewes and ram being remarkable for their grand type and character. The Earl of Carnarvon was second for ram and ram lambs, and Mr. C. A. Scott-Murray for yearling ewes.

Shropshires never make a really strong entry at this show, but those that were present were most creditable to their breed; Mr. A. E. Mansell, whose dispersal sale is announced in your columns, being the proud owner of one of the very best types of ram lambs seen for many a day, who, with his mate, came in for premier honors, whilst a yearling ram from this flock, who, though second here, will live ere long to show his tail to his conqueror at this event, a grand sheep from Mr. R. P. Cooper's flock, who, in addition to being first with this grand ram, was also first for yearling ewes; Mr. P. A. Munty's pen being second.

Mr. J. T. Hobbs repeated his Oxford victory, and again led the way in the yearling ram class of Oxford Downs, being followed by Mr. A. Brassey's entries, this latter gentleman taking precedence in the classes for ram lambs and yearling ewes, the latter a very remarkable pen, of great quality. Mr. R. W. Hobbs and Mr. H. W. Stilgoe had real good pens entered. Mr. L. C. Attrill was the only competitor in the Dorset Horn classes.

**PIGS.**

The Berkshire classes were well filled, and Mr. Edney Hayter secured the championship with his great boar who won at Oxford, Mr. J. Jefferson being next him in the championship contest with a real good type of sow—Peel Flirt. Mr. R. W. Hudson's young boars and gilts were of excellent merit.

Large Whites (Yorkshires) were not very strong in numbers, Mr. S. Spencer leading the way. The Tamworths, which make one of the most important shows of the year at this meeting, were present in good numbers and useful quality. Mr.

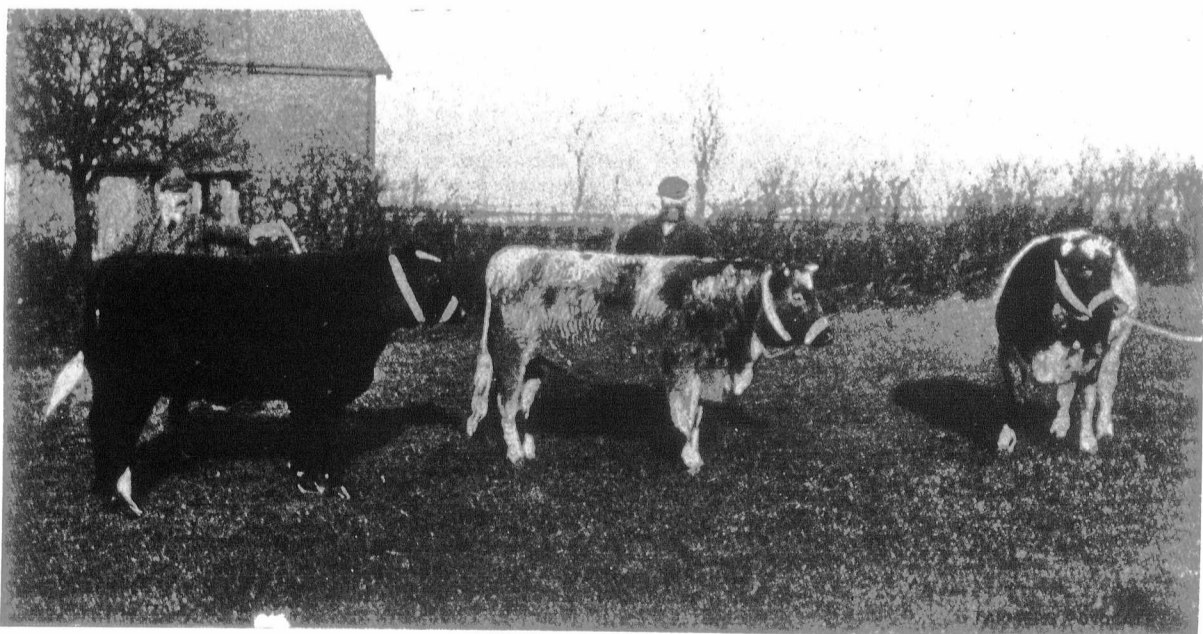


MR. HENRY DUDDING MR. KIRKHAM MR. W. W. CHAPMAN A VISITOR.  
(Riby Grove). (Mr. Dudding's Mgr.). (Rep. FARMER'S ADVOCATE).

therefore, benefit by the present law, which gives every necessary facility for the importation of food, but ensures the exclusion of disease.

"Every consideration counsels the retention of the present law, under which the cattle exports from Canada have increased, as have also those from the United States. Our breeders, though hard hit by competition, do not zealously urge the question of a universal dead-meat trade. But if the battle has to be fought again on the initiative of Canada, then there will be a simultaneous demand for the total exclusion of all live animals except those that are imported for breeding purposes, under an adequate quarantine. That would place the imports to this country on exactly the same terms as ours are subjected to when carefully-selected pedigree stock are imported into the Colonies and foreign countries. But, as has been said, that question is not at the moment one of practical politics. It will only become so if the demand is made for the abrogation of the present law; and the concessions to be made, if that took place, would not be confined to Canada, but would also extend to the United States. It is well that Mr. Fisher and those who support his views should clearly realize this element in the case, which is of considerable importance, as it would lessen the benefit that Canada could expect from the change. This, however, is a matter for Canada herself to consider, if she has not already discounted the probability. With us it is not a question of preferential trade; it may without exaggeration be said to be a matter of life or death to the stock-breeding industry of the United Kingdom, which would be menaced first by a ruinous depreciation of prices; and when the travel-worn animals from the ends of the earth were distributed in the interior, as they would be if the barriers were once broken down, the inevitable outbreak of disease would follow; supplies would then be cut off, and the consumer would also suffer grievously. A clear and prudent policy has been incorporated in the existing Act of Parliament, which, it is hoped, will be strenuously maintained in spite of all efforts to the contrary."

Amateur Farmer—Mr. Green, there seems to be something serious the matter with the horse I bought of you yesterday. He coughs and wheezes distressingly, and I think perhaps he is wind-broken. What would you advise me to do?  
Horse Dealer (promptly)—Sell him as quickly as you can, jes' like I did.



**HAWTHORN BLOSSOM. FLORODORA. OMBERSLEY PRIDE.**  
Prizewinning Shorthorn heifers in the herd of Mr. Henry Dudding, Riby Grove, Great Grimsby, Lincolnshire. Annual sale August 7th, 1901.

The Aberdeen-Angus cattle had, for the first time, classes open to them at this show, and they certainly took full advantage of the opportunity. Most of the breeders whose names head the winning list, being south country ones, may not be known to your Aberdeen men, but, depend upon it, if the same energy and perseverance continue to be shown in the future, the breeders of these cattle in Scot-

R. Ibbotson won for old boars, the pair of young boars and pair sows; whilst Mr. D. W. Philip took precedence in the mature sow class.

There were not many visitors from either the States or Canada. Amongst those who were present we noticed Mr. F. S. Peer, who is over for a consignment of fine stock, amongst them some Leicester rams.

**Some English Shows.**

The first really important show of the summer season, the Oxford County Show, was held in the quaint, picturesque, old-time agricultural town of Thame, some thirteen miles from the county town of Oxford, on May 15th and 16th. Sheep, an important interest all over the world, can fittingly be taken first in respect to this particular show, from the fact that seldom, if ever, has there been so fine

and character, and would be a credit for any flock-master to own. We were also most favorably impressed by the capably-matched pen that secured third honors for Mr. Stilgoe; whilst the pen from Mr. Brassey's flock were well deserving the fourth prize they secured. A class for flock ewes with lambs failed to secure large support, but the pens which represented Mr. Brassey, who was first, and Mr. A. H. Wilsdon, who came in for second honors, were of very high merit.

The Hampshire Down breed made a most creditable exhibit, but many of the leading flocks were not present. However, the great victories that the Earl of Carnarvon's entries secured are of the greatest credit. First and third for yearling rams, first for ram lambs, first for ewe lambs, for flock ewes and lambs, and for ewe tegs in the wool, is a record that very clearly indicates the undoubted merit of the exhibits. In the absence of Mr. James Flowers' exhibits—who, by the way, is said to have one of the best and most typical lots of yearling ewes and rams he has had for many years—the entries of Mr. O. A. Scott-Murray worthily filled first and second places in the yearling ewe class.

The Southdown exhibition was at the best a weak one. Champion honors and first for yearling rams were secured by a very nice, good-fleshed ram from Mr. C. Adeane's flock, but his position in this class was most distinctly contested by a pair of grand rams from Col. H. McCalmont's flock, whose successes were well deserved, both in this class and also in those for ram lambs and ewes in lamb, in both of which he secured first honors. Buyers from your side would do well to pay a visit to this rapidly-rising flock, whose advertisement runs regularly in your valued paper.

The Shropshires made an entry of great credit to their breed, and the two yearling rams that secured first and second honors for Mr. R. P. Cooper were of very high merit and quality. Mr. D. Gibson came in for third and fourth honors, whilst Messrs. Inge, Jolliffe and A. Tanner had exhibits of capital merit, which came into the honor list. Mr. W. F. Inge's pen of yearling ewes that took premier honors were of grand type and character, which were rightly preferred to the two pens that were sent by Mr. R. P. Cooper, who came in for the second and third prizes.

Mr. Russell Swanwick was the only entrant in the Cotswold classes, and he made four entries in the three classes: shearing rams, ram and ewe lambs, which were of real good quality and merit, and were unfortunate in having no competition to overcome.

Pigs.—Seldom if ever have we seen a better or more uniform entry of Berkshire pigs than those which filled two large classes of this breed at Oxford Show. Mr. E. Hayter headed the old boar class with one of the best types of boars we have seen for many a day. This pig, beautifully marked, of great length, with even flesh and depth of body seldom met with, secured, in addition to the class prize, the champion award for best Berkshire boar, and also for best boar of any breed. It may be of interest to some of your readers across the border to know that Mr. Vanderbilt's agent, Mr. Gentry, has been fortunate to secure this boar, who will, after the English

show-yard season is over, go across the herring pond. Mr. J. Jefferson and Mr. J. A. Fricker were leading winners in this class behind the champion. In the young boars, Mr. J. A. Fricker led the way in a class of ten entries wherein the whole secured notice of the judges; Mr. Jefferson being second, Mr. Russell Swanwick third. Amongst a wonderfully good lot of breeding sows, Mr. A. Henderson's Briscot Pippin took the precedence. A grand sow she is, full flesh and great quality, and one that would be at or near the top in any company. To her went the championship for best sow in the yard. R. W. Hudson and N. Benjafield secured the other two awards. In the 9-months-old class, Mr. Fricker went first with a pair of very typical young sows. Mr. Hayter came in for second honors with a pair we liked better, in regard to breed points; whilst the third pair were two from Mr. R. Swanwick's herd, which were of real good merit. Pairs farrowed in the present year were a very large class, and Mr. Hudson is to be congratulated upon his success in taking the first place with so excellent a pair of gilts; Mr. N. Banjafield being second, and Mr. J. A. Fricker third.

Shorthorn Cattle.—In aged bulls, Mr. J. Deane Willis went to the top with Regulator, a useful bull, being followed by Mr. J. Garne's Pedestrian, whilst Miss Alice de Rothschild's Royal Prince came in for third honors. The class as a whole was a good one, and we may here remark that the entry for this breed was of high merit. The 2-year-old bull class was a large one, and we certainly did not altogether approve of the awards made. Manor Victory, from Capt. W. H. O. Duncombe, went to the front; Lord Tredegar's Prince Alto, by Alto, who was sire of Mr. H. Dudding's last year's Oxford winner, King Alto, being second; and Mr. Henry Dudding's excellent bull, Ingram's Perfection, whom we thought rather hardly treated, third. This is a grand bull, of Scottish parentage. In the yearling class Mr. Dudding went rightly to the top with another Scotch-bred bull, Victor, a dark red, with capital flesh and plenty of hair, bred by Lord Lovat; Mr. J. D. Willis winning second with Cornelia; Mr. J. Thorley being third with Prince of Troy, a Deane Willis-bred bull. The cow class was not a particularly strong one, Col. Makins being first with Welch Gem, an award we did not approve of. Preference might have been given to either the second, third or *r. n.*, owned respectively by Capt. Duncombe, Lord Tredegar, and Miss Alice de Rothschild. The three winners in the 3-year-old heifer class were J. Deane Willis (White Heather), Miss A. de Rothschild (Rose of Underley 6th), and Henry Dudding (Fairy Belle 8th). A grand trio they were, and though the order was as given, it was more a matter of personal choice than merit or quality that divided them. In the 2-year-old class, Mr. Dudding had a pair of heifers, Ombersley Pride and Gloradora, which are probably the best pair of this age we shall see out this year. The latter took first prize, whilst both of them, in two different classes, against very

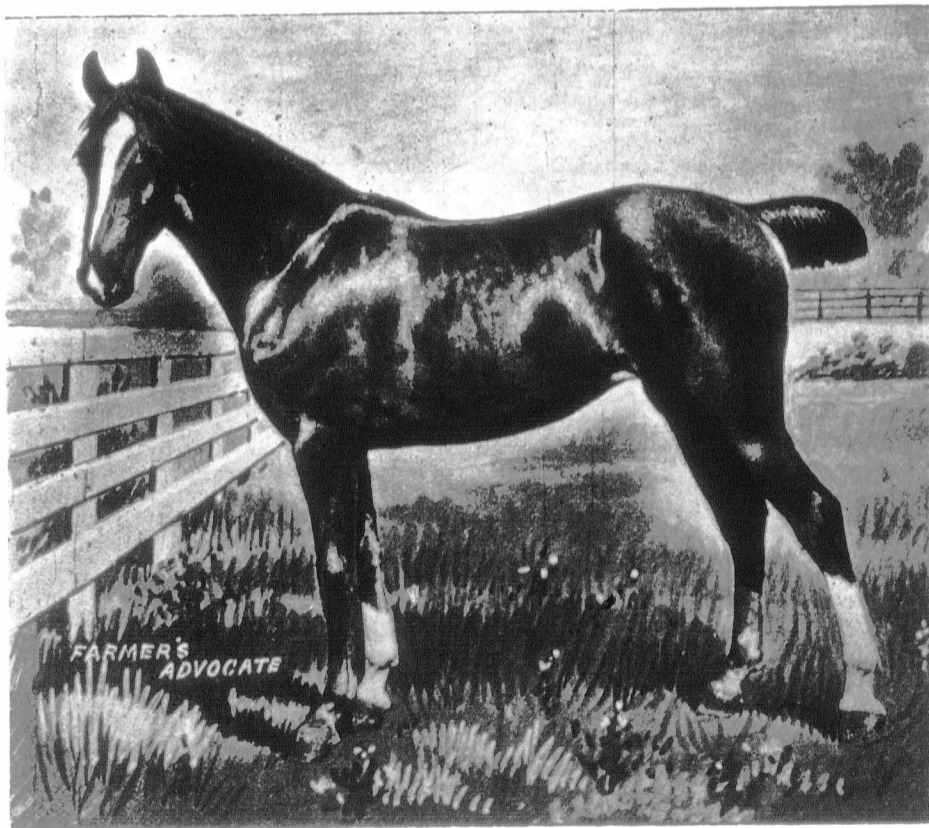


**DORRINGTON 3RD.**

Hackney pony, 14 hands. Sire, Dorrington (imp.); dam, Crafty (imp.). First prize at Military Tournament and Horse Show, 1901.

OWNED BY R. BEITH, BOWMANVILLE, ONT.

a display of Oxford Downs at this, which is really the most important show of the year for this breed, for here the first trial of strength takes place, and many which are not in the first flight are seen no more in the show-yard contests which follow, but are kept at home and got into condition to go to the ram sales in real good form. The yearling ram class of this breed was a grand one, twenty-one entries facing the judge, whose task to select the best from so large an entry was by no means an easy one. The final selection found two from Mr. J. T. Hobbs' flock of Maiseyhampton put first and second, both real good rams, with plenty of bone and masculine character. The first-prize winner was rather more forward than the second one, whose general conformation, type and character were preferred by some breeders present. In fact, so highly was this ram valued, that that noted breeder and judge, Mr. John Treadwell, offered one hundred guineas for him, which, we understand, was not accepted. Third and fourth honors were awarded to two from Mr. A. Brassey's noted flock. The leading ram was a real good one, good enough to go to Mr. J. Treadwell, who secured him at a very high figure, but the fourth-prize ram was very fortunate in securing so high a place in this very strong class. We far and away preferred that fine masculine ram of Mr. Treadwell's breeding, who had to be content with the barren honor of *r. n.* This ram, not at all forward in condition, is just in the right shape for shipment, is of grand type and character, excellent head, plenty of bone and good symmetry. Two real good rams from Mr. H. W. Stilgoe secured notice of the judge. These are not yet up in showyard form, but will probably be heard of in future contests, for their excellent character and type can hardly fail to secure prominent notice. The ram lamb class was notable as being the first one wherein Mr. G. Adams' entries have appeared for several years. That his flock has not lost its old form is clearly shown by the fact that his two entries were put first and second. The leading pen are masculine in type and good in flesh and fleece, whilst the second pen was hardly so masculine in character; in fact, we think they were fortunate to secure precedence over a very capital pen that Mr. W. A. Treweeke came in third with. This pen should have gone forward, for they were of good type and symmetry. A fourth prize went to a very stylish pen of lambs from Mr. A. Brassey's flock. Mr. H. W. Stilgoe's pen were fifth, and commendations were given to the entries of Messrs. Reading & Fisher. The winning pen of yearling ewes came from Mr. Brassey's flock. They were hummers and no mistake, and whoever may be fortunate to secure the possession of these ewes on your side will secure three of the grandest Oxford Down ewes we have seen for many years. Mr. J. C. Eady had this year to be content with second and third places. These ewes were this year not up to their usual form in respect to condition, but were equally good as in former years in respect to type and character. Two excellent pens of what may be termed field ewes, from Mr. R. W. Hobbs, and a well-matched pen, of fine quality, from Mr. G. Street, secured notice in the award list. As in the ram lamb class, Mr. G. Adams secured the first two awards for ewe lambs. These were of great quality



**TITANIA -103-**

Hackney filly, two years old. Second prize at Military Tournament and Horse Show, 1901.

BRED AND OWNED BY R. BEITH, BOWMANVILLE, ONT.

strong competition, at Otley last week were first-prize winners, and the former also secured the champion award for best cow or heifer at that show.

The Earl of Coventry was easily first and second in the Hereford bull class, and Mr. John Tudge had no difficulty in securing premier honors in the cow class for a real grand 4-year-old cow, Rustic Maid,

### Breeding and Management of Pigs.

The Canadian farmer will in the future, far more than in the past, find that the best markets open to him will demand that the articles he produces must be of the best quality, and his chief interest will be to reduce the cost of production. While granting that much advancement has in a few years been made, we have no hesitation in asserting that in few of the articles which he produces is there more room for the continued improvement than in the average quality of hogs placed on the market. A considerable proportion of our farmers have paid attention to the trend of the markets and the discussions of the press with regard to the type of hog wanted, and have bred and fed their hogs with a view of meeting the requirements and with a good degree of success, but evidently there is a large proportion of the farmers who have not read either the papers or the signs of the times, and have gone on in the old way producing what is not wanted and must be sold at second or third class prices, thus losing money and at the same time injuring our trade, which, but for their carelessness, would be more satisfactory. The pig now required to bring the best results to breeder and feeder is one of early maturity. It has been clearly proved by repeated experiments, both by private individuals and at experimental stations, that pork made from young pigs is far more cheaply made, that it brings the highest price on the market, and that it enters more readily into consumption by the class of people who are willing to pay a good price for what suits their taste.

The type of pig required to meet the present-day demand is a lengthy, deep-sided pig, which will grow rapidly while young, and will attain the 200 lbs. weight at 6 months old. To reach this weight, he must be fed a variety of food, such as milk, whey, barley, shorts, and peas, with good clover besides, when it is to be had, and roots supplied in winter, together with free access to such condiments as a mixture of wood ashes, sulphur and salt, and a shovelful of earth from a root cellar occasionally. As to the best means to bring one's pigs to these requirements, there may be room for difference of opinion, as most men have their own ideas of the merits of the different breeds, but it is safe to say that no one breed has a monopoly of all good qualities which go to make the ideal bacon hog.

If it is proposed to breed and keep pure-bred hogs, the first essential is to secure a sow of desired type, with good length, deep body and strong bone, standing straight on her toes, having a quiet disposition, with at least twelve teats, even in size, placed equidistant apart, and commencing as near the fore legs as possible. The fact that the produce of a boar may, and often does, amount to hundreds of pigs in a few months makes it essential that care should be taken in his selection and in the study of the character of his forebears. To this end, it is preferable, as a rule, to look for him in the herd of a breeder of long standing and good repute, and if you are not a judge, explain your wants fully and trust him to supply what you need. The oft-quoted remark, "The bull is half the herd," applies with greater force in the case of a boar in a herd of swine, and as many good points as possible should be combined in the pure boar. The first essential is that he should be bred, and in order to this he should be registered, and if descended from an old-established herd, all the better, for the reason that in a newly-established herd, even though the owner may have won prizes at recent shows, a variety of type is likely to be found, and more likely the prize animals have not been raised by the exhibitor, but bought from different herds differing very much in type, and their produce, when bred together, will often be unlike the parents or each other. Here again comes up the point of importance to the beginner who hopes to found a herd good enough to take a high position. It is to select the boar from the same breed for a lengthened period in order to secure uniformity of type. Young breeders are apt to get the idea that by selecting boars from a number of leading herds in succession, they will combine the best points of all, but in actual practice this will end in a partial failure: the stock bred will lack uniformity, some points will be abnormally developed, while strong failings will be equally noticed.

The essential points sought for in a stock boar are a compact frame, as long and deep as possible, consistent with strength, a wide chest and a good heart-girth, but fine and smooth in shoulders, and a straight top line, well-sprung ribs, deep flanks, strong loins, hams wide and deep, twist full and well-fleshed down, legs strong, straight and well placed, good quality of bone, and flesh smooth and elastic to the touch, and his temper should be good, for a vicious boar is an intolerable nuisance and a constant source of danger, and is liable to transmit this temperament to his produce, which are apt to prove restless, unsettled and poor feeders. Mere size should not be considered a strong point unless it is combined with compactness and fineness, and

strength of bone and feet. A very large boar is apt to have weakness of the spine and hind quarters, and is frequently weak in his joints, and these failings are hereditary. Weakness of fetlocks and roundness of the bone should always be avoided in a sire. These are frequently combined with great size. A medium-sized, compact boar, heavy in the hind quarters and light in the fore quarters, will most generally prove fruitful for a much longer time than one heavy in the shoulder, and a strong-boned hog and his produce will have stronger constitutions and prove to be much easier feeders.

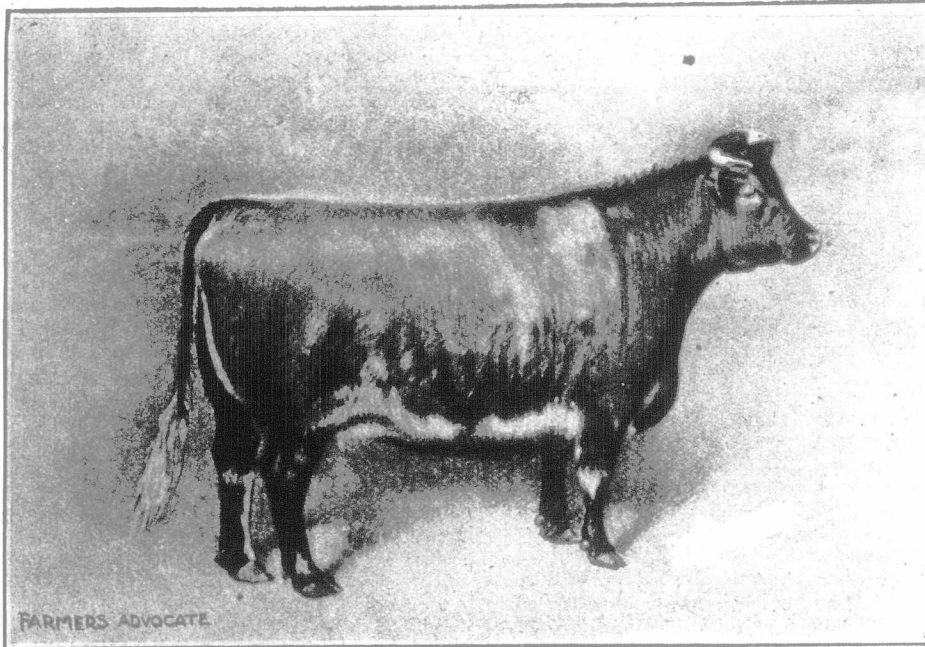
As to the age at which pigs should be mated for breeding, there is room for a variety of opinions. Where they have been liberally fed and well developed for their age, they may be safely put to breeding at 6 to 8 months old. A young sow should not be allowed to raise more than one litter of pigs the first year, but allowed to rest and grow. After this, if desired, she may raise two litters a year, having them in April and September for best results, as late pigs generally get "stunted" and do not go on and make rapid growth for the food they consume, since they cannot in winter get sufficient exercise to give them the vigor of constitution necessary to stand heavy feeding.

Kent Co., Ont.

HENRY SMYTH.

### Bone in Sheep Breeding.

The *Farmer and Stock Breeder*, England, of recent date, says: "For many years breeders of all persuasions have differed on the question of 'bone' in stock-breeding. This subject cropped up recently, when Mr. Mansell was reading his paper on sheep-breeding, before the London Farmers' Club, and in the subsequent discussion much difference of opinion apparently existed. Mr. Mansell, who breeds Shropshires, thinks that plenty of bone, when you have it combined with a good sheep otherwise, is a



DAISY 3RD.

Imported 3-year-old Shorthorn cow, contributed by W. D. Flatt, Hamilton, Ont., to the Canadian combination sale at Chicago, June 5th, 1901, and sold for \$1,910.

highly desirable characteristic, but a fine-boned sheep, otherwise suitable, he would not discard for breeding purposes. This, we fancy, is the attitude of the great majority of breeders of the smaller breeds. The Southdown, for instance, maintains its supremacy by reason of its small bone and quality of carcass. It is not difficult to get large-framed Southdowns if the breeder wished it so, but the distinctive character of the breed would be lost thereby. Indeed, in some parts, that is the difficulty with many of the Southdown flocks, to keep down the bone and keep the type. On the other hand, Mr. Treadwell, an Oxford breeder, leads the van for bone. Without plenty of bone you cannot have lean flesh. Quite true; but when a breeder looks too much to bone, he is apt to sacrifice quality. Moreover, much depends on the quality of the bone. The eye is very deceptive, and a flat-boned sheep is sometimes discarded because he does not appear to be so well equipped in this particular as a round-boned sheep. If quality and quantity can be combined when dealing with the larger breeds, by all means encourage bone; but if encouragement of this feature should lead to coarseness, let us walk warily. The Lincoln sheep offers a very large part of its popularity abroad to the bone it carries. Foreign Lincolns do not necessarily decline in quality of wool, but they cannot retain the substance. Under these conditions, plenty of bone is essential if the popularity of the breed for export purposes is to be retained."

### A Good Watch.

DEAR SIRS, I received the watch all safe. It gives good satisfaction. Am well satisfied.  
Waterloo Co., Ont. JAMES R. BURNETT.

### Raising the Pure-bred Calf.

Whether the calf is the main consideration with the breeder, or whether a little butter or cream is of more importance to the owner than the highest good of a valuable calf, must be decided at the start. If the latter, some substitute for mother's milk must be given; if there is anything to take its place, I have never found it. If possible, then, let the calf have free access to its mother, as its delicate stomach is best suited by frequent draughts of small quantities. My system is to allow the calf to run with its dam for two or three weeks, then separate them and allow the calf to suck three times a day until it is two months old, when the noon sucking is discontinued. If the calf does not take all, the cow should be stripped dry to keep up her flow of milk till the calf will take it all. In all cases the calf should be taught to eat as soon as possible, for it is important to supplement the milk ration, both in quality and variety, as early as possible. They will soon learn to nibble at a little sweet hay or oat sheaf, and as they progress, the variety should be increased by bran, oat chop, and a little sliced or pulped roots. It is generally safe to feed the calves, both before and after weaning, all that they will eat up clean. Always see that there is nothing left in the boxes to sour. A careful watch should be kept to see that they do not scour; at the first symptoms the amount of food should be reduced. Generally, the cause is easily detected, and should be removed at once; and it rarely takes more than a few days of reduced rations and quiet to correct the disorder of the bowels.

Under ordinary circumstances I do not stable the calves during the warm summer months, but after the pasture becomes good, allow them to run with the cows. They should have access to a shady place during the heat of the day. The open air and plenty of exercise I regard as one of the prime factors in making thrifty, vigorous animals. As soon as the grass begins to get a little dry, the calves should be put in roomy box stalls and fed a ration of sweet hay, oat chop, bran, and a few roots. I grow a patch of corn to feed them at this time of the year. The usual weaning time, seven or eight months of age, is a very critical period in a calf's life, and if cut off from nature's diet too quickly, bad results may follow. The calf should be allowed to suck once a day for a week or so, and thus gradually become accustomed to the change. The great thing is to keep the growth of the calf from suffering any check. If the weaning is followed by a period of fretting, and the calf is for a few weeks unthrifty, the effect will be apparent in the animal's after-life. It is not an easy matter to impress on many men that an animal that has an unchecked calfhood of thrifty growth will mature earlier and develop more completely than one with at first equal promise which has been allowed to get out of condition the first month's time of its life. A little retarding of growth at this period may mean the difference between making a good calf or a bad one. After the calves have been weaned, they are past the first epoch in their lives and may be regarded as out of the period of special care, but during the whole course of growth the feeder's attention should not lag, but he should use every effort to develop all there is in the animal. This is an art the feeder of breeding animals needs to learn thoroughly.

J. G. WASHINGTON.

### Sharp Teeth, Not Black Teeth, in Young Pigs.

To the Editor FARMER'S ADVOCATE:

SIR,—I have read from time to time articles in your paper on black teeth in young pigs. If the writers would call them sharp teeth, then they would be barking up the right tree. I never saw young pigs without black teeth, as it seems to be natural for them to be black. But that is not what we are getting at. I want to give your readers to understand if they would buy a pair of small pincers and break off eight long teeth close to the jaw, four above and four below, that are as sharp as needles and cut the little pig's tongue and cause it to swell and create inflammation of the throat, etc., they would lose fewer pigs. I always remove the teeth from my pigs after a day old, and seldom lose one.

A. M. LAIRD.

Halton Co., Ont.

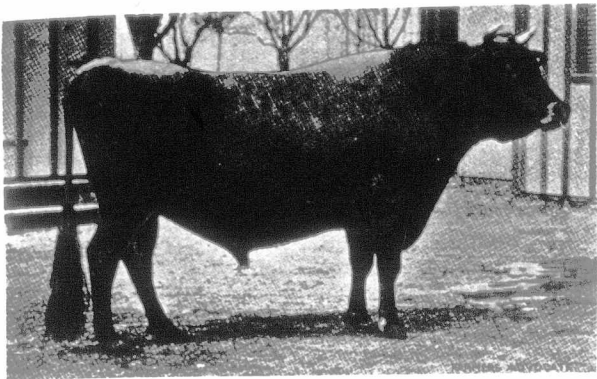
### For the Flies.

The following cheap mixture has been recommended for the fly pest: Take pine tar, 1 lb.; lard, 6 lbs. Melt the lard, and stir in the pine tar warmed. Smear some of the mixture in the poll, along the spine to the tail root, and on the brisket, twice or three times a week.



**White Scour in Calves.**

The important investigation into the causes of the mortality of calves in the province of Munster, which Professor Nocard, the eminent French bacteriologist and veterinarian, is conducting for the Department of Agriculture and Technical Instruction for Ireland, has reached the conclusion of its first stage. Professor Nocard, with whom has been



**GOLDEN MONPLAISIR.**

Four-year-old imported Jersey bull, sold for \$3,500, at T. S. Cooper's sale, Coopersburg, Pa., May 30th, 1901.

associated Professor Mettam, Principal of the Royal Veterinary College of Ireland, and a qualified staff, has been fortunate in being able to observe numerous cases of the disease in almost every phase of its development, and has made a large number of post-mortem examinations. The full significance of the results of these examinations cannot, however, yet be stated. Professor Nocard has returned to his laboratory at Alfort, where he will continue the experiments with the materials collected at the laboratory at Limerick. He will visit Ireland again this month, for the purpose of carrying out a fresh series of experiments with a view to verifying or correcting any conclusions he may have arrived at. Meantime, Professor Nocard has carried his researches far enough to enable him to say that he has discovered the nature of the disease and the modes of its transmission, and to justify him in recommending, with full confidence in their efficiency as preventive measures, the following course of procedure.

White scour is generally the consequence of an umbilical infection which occurs at the moment of parturition, occurring through the wound resulting from the rupture of the navel cord. Farmers may ward off the disease if they will conform with the following rules:

1. Provide the cows that are about to calve with dry and clean bedding, and keep it in good condition until after the calf is born. If possible, a special stall or loose box should be provided for calving cows. Strict regard to cleanliness is of the utmost importance.
2. When the cow shows signs of being about to calve, the vulva, the anus and the perineum should be disinfected with a warm solution of lysol in rain water—20 grammes of lysol to one litre of water (i. e., two parts of lysol to one hundred parts of water). The vagina should also be washed by injecting, by means of a large syringe, a considerable quantity of the same warm solution of lysol.
3. Whenever possible, the calf should be received upon a piece of clean sacking or some such material, or at least upon a thick bed of fresh clean straw, unsoiled by urine or excrement. Or the calf may be received into the arms of an attendant, and held there until the treatment is completed. The object is to keep the umbilicus or navel cord of the newborn calf from being soiled or infected before treatment.
4. The cord should be tied immediately after birth, with a ligature of twine which has been steeped in the lysol solution; the cord should then be cut about an inch below the ligature.
5. The portion of the cord still attached, as well as the region of the umbilicus, should be dressed with the following solution, applied by means of a large brush:
 

Rain water,	1 litre = 1 1/2 pints.
Iodine,	2 grammes = 31 grs. (by weight).
Iodide of potassium,	4 grammes = 62 grs. (by weight).
6. The disinfection of the region of the umbilicus and the cord should be completed by dressing them with another brush dipped in the following solutions:
 

Methylated spirit,	1 litre = 1 1/2 pints.
Iodine,	2 grammes = 31 grs. (by weight).
7. The operation is finished, after this spirit has evaporated, by painting upon the cord and the region of the umbilicus a thick layer of collodion and iodine (1 per cent.), applied with a third brush. When the collodion is dry the calf may be left to the care of its mother.

Is there a scrub bull or scrub stallion in your neighborhood? If so, now the weather is right, grass good, etc., do a little tactful missionary work, and explain that the cutting of that male will be a public benefaction.

**FARM.**

**Doings at Annandale Farm.**

SIR,—My sixty cows are doing exceedingly well, giving an average of over 30 lbs. milk per day. I have two silos full, not yet opened, and any quantity of nice alfalfa clover now ready to cut, thirty inches high. We cut and weighed a piece on 18th of May that gave seven tons to the acre. We cut and feed green to our 300 hogs twice a day all they will eat. They love it; it does them good, and saves other feed. We have four acres alfalfa, besides five acres seeded down this spring. It is the cheapest and best feed to grow for either soiling or hay.

As for our hogs, we have had splendid luck all the past year. Had sows farrowing litters of eight to twelve nearly every week right through the winter, in the coldest weather, and lost but very few young pigs, scarcely any. We now have about 150 beautiful young pigs and as many more older ones. We will have thirty fat hogs to sell next week, averaging 180 lbs., at \$6.75, or more than \$12 each. We have some to sell nearly every week, and find it the best paying business on the farm. We turn off 400 to 500 a year. We have lots of skimmed milk and alfalfa clover, both good, cheap feeds. I intend to try feeding alfalfa hay next winter. Nice, well-cured alfalfa hay, I think, will make a good and cheap feed along with roots and a little grain feed and milk. Alfalfa hay, cut fine, steamed, and mixed with mill feed, shorts, meal, etc., will be fed warm in cold weather. What would you think of this experiment? It's worth trying, is it not?

E. D. TILLSON.

"Annandale Farm," Oxford Co., June 1st, 1901.

[NOTE.—It is always a pleasure and a help to hear from "Annandale Farm," as the proprietor, Mr. E. D. Tillson, and his farm manager together figure out the most economical methods of producing milk, cream, butter, and pork. Mr. Tillson's letter shows the success attained in these things, and teaches lessons that should be of value to many dairy farmers. Regarding the experiment in using alfalfa hay next winter as hog feed, we bespeak for it success, as it does well on some of the large hog-raising farms in the West. There, we believe, it is fed, not cut up and steamed, as Mr. Tillson proposes, but the hogs consume the dry leaves and finer portions of the plant right from the stalks. We will watch for results of Annandale hog-feeding experiments, and expect to hear that alfalfa can be used to cheapen pork production in winter as well as during the summer season.—ED. F. A.]

**The Universal Beneficence of Grass.**

Perhaps never throughout many sections of the country did the foliage and herbage spring so quickly and luxuriantly into full growth as they have done the present season. The knee-deep greenness over which the herds and flock have been grazing recalls the following immortal eulogy paid to grass by Senator Ingalls, of Kansas:

"Next in importance to the divine profusion of water, light and air, those three physical facts which render existence possible, may be reckoned the universal beneficence of grass. Lying in the sunshine among the buttercups and dandelions of May, scarcely higher in intelligence than those minute tenants of that mimic wilderness, our earliest recollections are of grass; and when the fitful fever is ended, and the foolish wrangle of the market and the forum is closed, grass heals over the scar which our descent into the bosom of the earth has made, and the carpet of the infant becomes the blanket of the dead.

"Grass is the forgiveness of nature—her constant benediction. Fields trampled with battle, saturated with blood, torn with the ruts of cannon, grow green again with grass, and carnage is forgotten. Streets abandoned by traffic become grass-grown, like rural lanes, and are obliterated. Forests decay, harvests perish, flowers vanish, but grass is immortal. Beleaguered by the sullen hosts of winter, it withdraws into the impregnable fortress of its subterranean vitality, and emerges upon the solicitation of spring. Sown by the winds, by wandering birds, propagated by the subtle horticulture of the elements which are its ministers and servants, it softens the rude outlines of the world. It evades the solitude of deserts, climbs the inaccessible slopes and pinnacles of mountains, and modifies the history, character and destiny of nations. Unobtrusive and patient, it has immortal vigor and aggression. Banished from the thoroughfare and fields, it bides its time to return, and when vigilance is relaxed or the dynasty has perished it silently resumes the throne from which it has been expelled but which it never abdicates. It bears no blazonry of bloom to charm the senses with fragrance or splendor, but its homely hue is more enchanting than the lily or the rose. It yields no fruit in earth or air, yet should its harvest fail for a single year famine would depopulate the world."

Do you own a Government butter brand? Isn't it ridiculous that you or I who may have a few pounds of butter to sell weekly, should have to tattoo the package with a brand making the package resemble a Chinese tea-chest. It is probably all right to brand the creamery packages, and so get on to the man who is spoiling our reputation in foreign markets, but for farmers the parchment paper and man's name is sufficient without the convict-like system of numbering our products.

**Haymaking with Little Labor.**

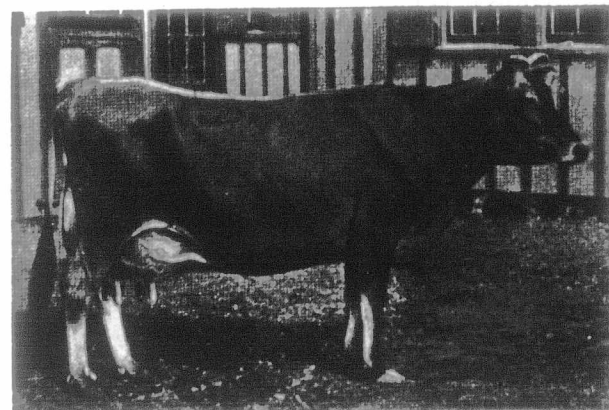
To the Editor FARMER'S ADVOCATE:

SIR,—In curing hay we rake it into windrows sufficiently close to admit of driving between and loading from each side. The hay cures better in these small windrows than by being left very long in the swath exposed to the scorching sun. It is also safer in case of rain; therefore, we rake just as soon as it is well dried about half way through the swath, and after allowing the lower half to dry awhile in the windrow commence to coil. With us this is a simple and speedy process. It is first "bunched" by driving the rake lengthwise of the row. Then each bunch being as large as the rake will make it, usually is sufficient for one good coil, which saves carrying the hay. And although the coils may be a little small, they dry out better and are easier handled. Moreover, they need not be put up forkful after forkful, but rolled up, and a forkful set neatly on top, which, unless a very heavy rain comes, is sufficient to cure the hay in a nice green condition.

Then comes our low, flat-racked wagon between the rows, and one man on each side can throw on these coils almost as fast as the team will walk. The hay, having settled in the coil, lies compactly on the wide surface of the rack, so as to make a good load without anyone on top. It can be easily loaded from the coil so as to unload quickly by either horse fork or slings. If the former, it is loaded in two sections, and in either case it is dragged promiscuously into the mow "while the sun shines," and if a rainy day should come it is levelled with horse power by fixing a pulley at different places on the wall plate, detaching the rope and fork from the car, and by attaching the latter to one end of the former, drag the center of mow to the side. This is another preventive of overheating and deterioration; it likewise helps to make a more uniform quality by mixing the over-dried portions with the green. We never use an ounce of salt on our hay, never had any spoil, and usually save it without exposure to rain, and consequently have it come out almost as fresh and green as new-mown grass. And two of us handle from fifteen to twenty-five acres every summer, and enjoy the work.

Owing to lack of barn room it is not all housed every year, and last year we adopted a novel method of stacking. We selected a stout tree in the hayfield and attached a pulley high up on the trunk, and ran one end of the rope through. Then, as the distance for drawing was short, we constructed a big but light-draft stone boat out of 2x4 scantling and inch boards, and by attaching four horses we could take a small load, which was thrown on a sling rope on the boat, and on arriving at the stack one end of the rope was quickly hooked to the sling and the other end hooked to front end of stone boat, and with the weight of a man on this front end, the four horses drawing slid the bundle up over the end of the long stack, made slanting on purpose. This plan has many advantages over hand stacking, chief of which is the better form of stack for shedding rain, owing to the hard center. This hay kept excellently, though not quite equal to that in the mow handled by the other method. Then the labor is reduced to a minimum, the loading being nearly all down pitching instead of up or even level, but this method is only applicable to short-distance drawing, on account of small loads. However, this could be partly remedied by replacing the single pulley with a double-block one, thus increasing the leverage so as to allow for larger bundles.

Our low, flat-racked wagon was constructed from an old wagon with hind wheels cut down, and the front axles supported by two iron wheels from a binder truck. The platform is made flat by simply nailing scantling crosswise, and nailing on



**GOLDEN ROSEBAY.**

Five-year-old imported Jersey cow, sold at T. S. Cooper's sale, Coopersburg, Pa., May 30th, for \$2,775.

two rows of inch boards on the sides and rear end, the whole thing not costing more than \$5.00. We have used this truck for all kinds of work on the farm, and find it saves an immense amount of labor in pitching manure, sheaves or hay. Our method of using is usually for two to load and unload in all cases. By this method, particularly with sheaves or hay, the work is done much more expeditiously. Perth Co., Ont. J. H. BURNS.

**Prof. Reynolds on Stable Ventilation.**

In a country where the live stock necessarily spends several months of each year indoors, proper ventilation of buildings is the very first requisite towards the maintenance of sound health. We are gratified to find that the subject has come to the front despite spasmodic attempts to magnify the tuberculin-test fad. Farmers and stockmen have taken a keen interest in the series of articles running through the FARMER'S ADVOCATE, describing the systems recommended by Prof. J. H. Grisdale, of the Ottawa Experimental Farm; by Mr. H. S. Foster, of Quebec; by Prof. H. H. Dean, of the O. A. C.; by Mr. Isaac Usher, and others. Prof. J. B. Reynolds, of the Ontario Agricultural College (Department of Physics), has made a special investigation of the question, and, as a great many new stock barns are now being erected and old ones reconstructed, we have asked him to discuss a couple of enquiries just received from two different localities, bringing out points of general value. In one the general principles are stated, and in the other a practical application is made. The following questions in the letter first mentioned are from Mr. E. A. Garnham, Elgin Co., Ont.:

1. "At what place in the stable should the fresh air be admitted, and why?"

The fresh air should be admitted at the points where it will do the most good, and in such small quantities as can do no harm by creating appreciable drafts. The fresh air is needed principally for breathing purposes, and therefore should be admitted near the heads of the animals in the stables. If there is a forced draft, such as is caused by making use of the force of the wind outside, the best point for admitting the fresh air is at the floor, immediately in front of the stalls. It has been found that cold fresh air passing into a stable at the ceiling causes the deposition of moisture, which is avoided if the air is introduced at the floor.

2. "Where should the impure air escape, and why?"

For perfect ventilation, the impure air should escape at the ceiling immediately after it has left the lungs of the animals. The air which has just been expired from the lungs of the animals is 30 or 40 degrees higher in temperature than the surrounding air; and being warmer, it is lighter (bulk for bulk), and consequently tends to rise to the ceiling, where it may be drawn off almost immediately. But perfect ventilation is not practicable, especially in stables, since the question of temperature has to be considered as well. The air of the stable is partly warmed by the mixture with it of the warm air from the lungs of the animals, and in that way the warmth of the stable is partly maintained. The object of practicable ventilation is to remove parts of the impurities, and to maintain the air of the stable at a definite standard of purity, it not being practicable to remove all of the impurities as fast as they are driven from the lungs of the animals, since such rapid removal would mean too low a temperature. When the temperature of the stable is too low to admit of warm air being taken from the ceiling line, the impure air must be drawn from the floor. On this account, it is advisable to provide in the foul-air shafts openings at the floor line and also at the ceiling, the latter being provided with arrangements for closing when required.

3. "The size of the in-take and that of the escape; and if any difference, why?"

The amount of air required for good ventilation in stables is as yet largely a matter of conjecture; in fact, it is as yet a question as to how much can be admitted without lowering the temperature too greatly, not how much each animal actually needs. Therefore, so much depends upon circumstances—that is, upon the construction of the stable, whether warm or cold; upon the number of animals in the stable, and upon the velocity of the wind and the temperature outside—that no definite rule can be laid down as to the amount of air required for each animal. I think I am safe in saying that a fresh-air box one foot square, inside measurement, will carry the minimum amount of air for ten animals; that is to say, for every ten animals there should be at least one square foot of inlet pipe. The size of the outlet should be slightly greater, but not much greater, than that of the inlet, for the reason that the outgoing air, being warmer than the incoming air, occupies larger space. There is danger, however, in providing too large an outlet, which results in down drafts.

4. "Is the air after being breathed by the cow heavier than before, or than pure air?"

This question has been answered in No. 2, but the simple answer, without further explanation, may lead to wrong conclusions. The air just emitted from the lungs is likely to be lighter than before it was breathed into the lungs. This, however, is principally a question of temperature. If the animal is breathing air of a high temperature, 90° or above, then the air before being breathed may be lighter than the expired air. In any case, the expired air in a short space of time becomes, by being mixed with the surrounding air, of about the same temperature as the latter; but this does not quite settle the question as to the proper points for drawing off the foul air. We hear of the carbonic acid gas, a product manufactured in the lungs of the animal, and of aqueous vapor, also coming from the lungs. These are the two principal products

which ventilation is required to remove. The carbonic acid gas at the same temperature is considerably heavier than air. Aqueous vapor is considerably lighter. It might be supposed that when these two products, after being expired, have reached the temperature of the outside air, the carbonic acid gas settles to the floor, and the aqueous vapor rises to the ceiling. As a matter of fact, however, both of these products diffuse almost uniformly throughout the whole space, so that at whatever height in the stable the foul-air outlet is placed it will draw off almost the same proportions of these products. Of course, if there is any difference, the carbonic acid gas is found in greater quantities near the floor line, and similarly the aqueous vapor at the ceiling.

5. "In case where two rows of cows are standing with heads to an alley, should the escape be in the alley, behind the cows, or at both places?"

If the fresh air is admitted in the alley, then the escape should be behind the cows, in order to provide for a complete circulation of air through the whole stable. Otherwise, with the inlet and outlet both in the alley, the air behind the cows will be stagnant.

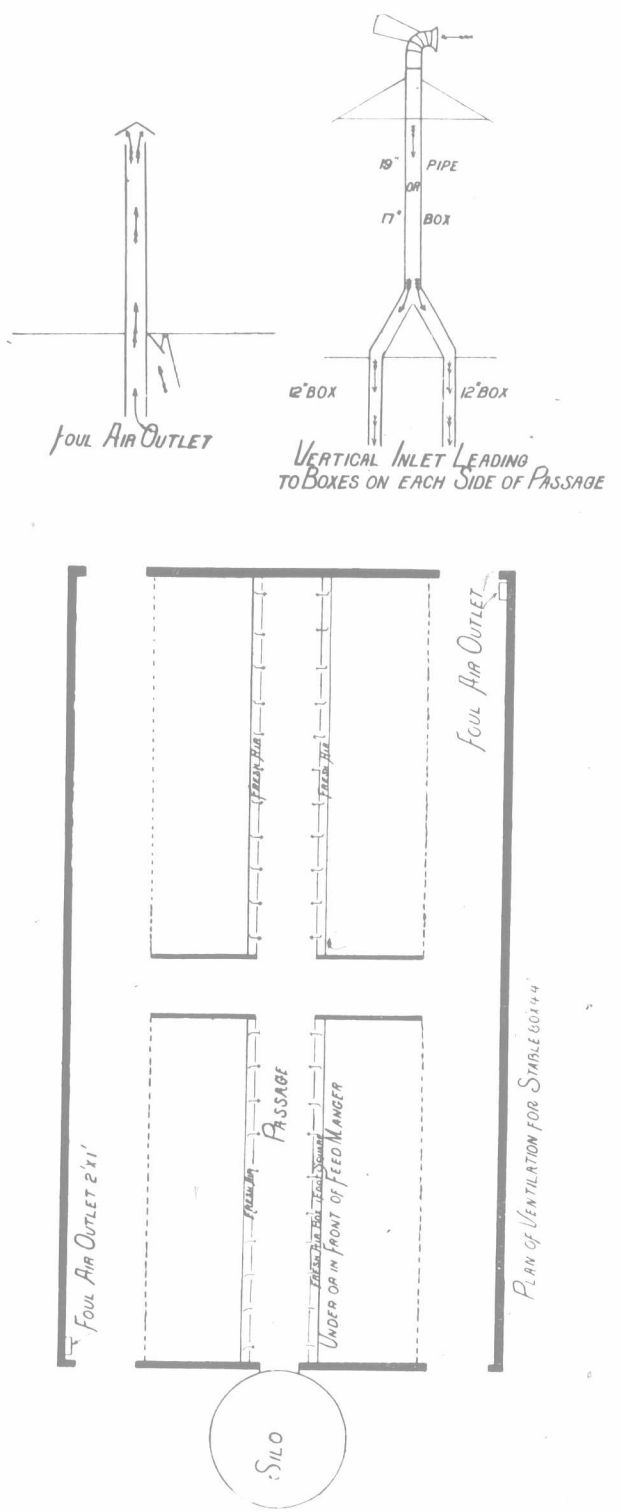
J. B. REYNOLDS.

**VENTILATION SYSTEM FOR LARGE BASEMENT BARN.**

Q. "I have just begun work on my new basement barn, 80 x 44 feet, with ceilings 8 feet 8 inches high, to house 42 head of full-grown cattle, which will stand in two rows, with heads to a feed alley running through center. From passage in rear of cattle the manure will be drawn out by team. As I cannot use the ventilation system advised by Mr. H. S. Foster in your paper for April 15th, I would be obliged if you would describe in your next issue a simple, efficient, and not too expensive plan to provide my stock with constant fresh air without being too cool in winter. My silo will stand outside at one end, opposite feed alley. The barn will stand on a hill, with no trees or obstructions near it. Concrete walls and floor."

Middlesex Co., Ont.

[I beg to suggest the following plan of ventilation in reply to this question (see plan):



The fresh air is conducted to the stable by means of a revolving cowl, which is constructed as shown in the figure. This cowl always faces the wind,

and, therefore, the one great difficulty in stable-ventilation is met, viz., a force to keep up the circulation. In order that the full force of the wind may be insured at all times, this cowl should stand just above the peak of the barn. The pipe or box with which it is connected should pass down through the barn to the floor. On reaching the barn floor it is branched, one branch going to each side of the main passage in the stable below, and connecting with the fresh-air box, which passes along the floor immediately under or in front of the feed manger.

If the stable arrangements are carried out as the plan shows, two of these cowls will be required, one at each end of the stable. A 19-inch circular pipe or a 17-inch wooden box will convey a sufficient amount of air for half the number of cattle mentioned in the question. The branches from the barn floor down and along the stable floor should be each one foot square, so that the outfit required would be two cowls, two pipes or boxes leading from the cowls to the barn floor, four branches from the barn floor to the stable floor, and four boxes along the floor for distributing the fresh air. The boxes along the floor should be provided with 4-inch openings, cut in the face of the box, opening out into the passage—one for each animal.

Outlets.—The outlets may be placed at any convenient points around the walls. Of course, the more of them the better; but, practically, two of these outlets will be sufficient, and the area of them should be equal to or slightly larger than the total area of the inlets; that is, 4 square feet. I have indicated a possible position for these outlets in opposite corners of the stable. The Fig. 3, at the left, shows a vertical section of one of these outlets. A wooden box, 2 x 1 foot, or slightly larger, beginning near the stable floor and continuing up through the barn and through the roof, will answer. The bottom of this ventilator should be left open at all times, so as to draw off the air from the floor. In addition to this opening, another should be placed in this box, near the ceiling of the stable, and provided with a lid worked by a string, so that it may be opened or closed as required. In warm weather it should be open, but may be closed if the stable is cold. The advantage of having two openings for foul air, one at the floor and the other at the ceiling, is that the temperature may be controlled by opening or closing the upper one; and also since the moisture in the stable tends to collect at the ceiling, the ceiling outlet provides for its escape. Therefore, it should be left open as much as possible.

In this particular case it may be found advisable or necessary to have one cowl for admitting fresh air, instead of two. This plan would be cheaper, and almost as efficient. If this is done the cowl may be erected at either end of the stable (in order not to interfere with operating horse-fork car), or over the middle, and the air distributed from it after the same general plan as is shown. If one cowl is made to do the work of the two, as described above, it will require to be 27 inches in diameter.

Advantages of this System.—The advantages of the system here outlined are:

First—That ventilation at all times is insured. On account of the exposed position of the cowl, and of the fact that it always faces the wind, it will rarely happen that there is no movement of air in the stable.

Secondly—The fresh air is evenly distributed at the places where it will do the most good—that is, immediately in front of the cattle, so that they are breathing fresh air.

Thirdly—As there is a constant circulation of air by this system, there will be little or no danger of dripping—that is, of moisture condensing in any part of the stable. Providing outlets at the ceiling also tends to lessen this danger.

Fourthly—The system requires little or no attention. The ventilators do not have to be opened or closed with every change of wind, the only attention required being in the case of extreme weather, when the ceiling ventilators may require to be closed.

I may add that the inlets should be provided somewhere with shut-offs, so that in case of very high wind they may be partly closed, as, of course, the amount of fresh air which comes into the stable depends upon the velocity of the wind outside.

Cost of this System.—A 19-inch cowl, made of galvanized iron, costs about \$7, and a straight pipe, of the same diameter, costs about 40c. a foot in length. A wooden box, of course, costs a good deal less, and if made fairly tight, is equally as good as a galvanized-iron pipe. All of the parts of the fresh-air box along the floor need not be specially provided, since the floor, if tight, may do for the bottom of the box, and the front of the manger for the back; so that the extra lumber required for this box would be simply a board for a face, and perhaps another board for the top.

Cheaper systems than this may be described, but I know of none as effective as this and costing less. There are plans of ventilation that will work fairly well under favorable circumstances, but are a nuisance under other circumstances. There are plans of ventilation that require almost constant attention. In a barn of this dimension, with, likely, all modern improvements in connection with it, a few extra dollars expended in a good system of ventilation will be repaid many times over in increased profits and increased comfort for cattle and men.

J. B. REYNOLDS.]

**A Demoralizing System.**

**POLITICS AND PATERNALISM—A DISGRACEFUL WASTE—PROTESTS FROM SELF-RESPECTING AMERICANS WHO REFUSE TO BE "BUNCOED."**

The *Country Gentleman*, of Albany, N. Y., is not only an ably-conducted periodical from the standpoint of the American farmer, but it possesses a wholesome spirit of independence, and has the courage of its convictions. The following vigorous letter from one of its contributors, Mr. F. H. Valentine, which we reproduce, should be a fresh warning, in addition to some examples we have already seen at home, of the dangers of official paternalism. With this appalling object lesson before us, Canadians should call a halt before being led further into the mire:

I am glad to see that you are again condemning the distribution of free seeds by the Government, through the Department of Agriculture. I say by the Government, because in the earlier days of his administration of Department affairs, Secretary Wilson apparently did his best to abolish or minimize this farcical humbug. But Congress not only disregarded his reasonable recommendations, but in the face of them increased the appropriations! What the Secretary's attitude now is, and whether he has seen fit to experience a change of heart, I know not, but the system—always

**HAD IN PRINCIPLE AND WORSE IN PRACTICE—** has now descended to apparently impossible lower depths.

As we all know, the original idea was to disseminate new and valuable seeds and plants. How far actual practice has lost sight of this commendable intention, those of us who have received any of these seeds well know. I have for several years past received from the Department and from members of Congress, packages of seeds of varieties which had been, some of them, in successful cultivation by market gardeners in different parts of the country for 40 years. But the varietal names have heretofore always been given on the packets, and one might have a reasonable certainty of at least *thinking* he knew what he was getting. Now not even this is done. A few days since, I went into our post office, where the postmaster was distributing a pile of unaddressed packages of seeds. Each bore the compliments, etc., of our member of Congress, but the latter apparently did not consider the packages of enough importance to address them to his constituents. Wise man! The postmaster distributed them according to his own ideas. As I received one, it was with the advice to

**FEED THE SEEDS TO THE CHICKENS**

when I got home. As our chickens are pure-bred and of considerable value, I did not run the risk. The package contained four packets of seeds. One was marked: "Peas—A Select Variety"; another, "Beet—A Select Variety"; one, "Watermelon—A Selected Variety"; the fourth, "Spinach—A Selected Variety." Just what the particular distinction is between "Select" and "Selected" I am not aware. Not heeding the good advice received, I have planted them, just to see what they will bring forth. The packets are all small, containing fewer seeds than the average seedsman would put in a 5-cent packet. The peas were some wrinkled variety, many of them weevil-eaten, and numbered about 220 by actual count. They will have to yield extraordinarily well, and every one grow, if the product furnish enough for one meal for even our small family. So much for their value!

In the past, there have been

**MANY SCANDALS,**

of more or less gravity, in connection with the purchase and distribution of these seeds. Now another has apparently been unearthed. A city newspaper has been investigating the matter as regards conformity on the part of the packers of the seeds to requirements of the Government, and finds, as reported, that instead of coming up to required weight, those sent out fall far below, thus swindling the Government—the people—out of the difference. This sort of thing might have been expected when the contract is let to the lowest bidder, and is to be guarded against only by the strictest supervision.

But now we are threatened with a new deluge. It is currently reported that the Department of Agriculture is to engage in the distribution of trees along the same lines. And why not? If the distribution of seeds was wise and right, that of trees and shrubs should be also. And by that same token, why not send the farmer a plow and harrow to fit his ground, cultivators and hoes to cultivate his crops, mowers and harvesters to gather them in, and if all this, then let our beneficent uncle add a "selected variety" of pig or sheep or goat or cattle or poultry to improve the live stock of the farms. True, these could not be sent through the mails, but when the Government owns the railroads instead of the railroads owning the Government, no doubt provision will be made for their distribution. Imagine a lot of farmers lounging around the railroad some spring day, swapping stories while they wait for the

**"GOVERNMENT FREE LIVE-STOCK EXPRESS,"**

loaded with a varied assortment of "selected" farm animals for free distribution! It would be much such a scene as we now see when a lot of victims have gathered for the regular spring delivery after some enterprising nursery agent has been "working" the country round. And it would likely prove just about as big a bunco game too.

But what are the gravest objections to these practices? Not their money cost. The entire expense of the free-seed distribution is a mere bagatelle compared with the number of people taxed, or the vast sums squandered in other ways. Not the influence upon the recipients, for nine out of every ten on the average estimate the seeds at their true value, and make slurring remarks about them. Every packet contains a request that results be reported to the Department. It would be interesting to know what proportion of the recipients comply with this request. Neither is it an objection that results are often disappointing. Few people expect much from these seeds, and it would be a blessing to the few who do if they met disappointment. Neither is it the overloading of the mails with tons upon tons of this useless rubbish, thus increasing the deficit that is such a bugbear to the postal officials, and leads them to postpone as long as possible the inevitable general free rural mail delivery. All these are bad enough, but the great objection is in the debauched and degenerated system itself. As now carried out, it is the pettiest and most

**CONTEMPTIBLE PATERNALISM AND FAVORITISM.**

It is an insult to every independent, self-respecting farmer. Of course, seeds are not sent to farmers only, for any applicant, though he live at the summit of the Rocky Mountains or on top of some colossal city pile, and have not a foot of ground to receive them, may have his quota of seeds. But the prevailing idea is that the system is for the benefit of the farmer, and he must bear the onus. The popular notion is that he can be purchased with a dime's worth of seeds. And this notion has been fostered by the farmers' (mis)representatives, too; for did not Congress persist in continuing and increasing the appropriations for this purpose against the direct protest of the Secretary of Agriculture? Every self-respecting farmer in the land should protest strongly against the continuance of this pernicious system, and continue doing so till he is heard and heeded. Farmers' organizations should throw the full weight of their united power against it. As it now exists, it is

**A STANDING DISGRACE**

to the American farmer.

I do not advocate abolishing the work of the Department of Agriculture in the discovery, distribution for trial and dissemination of new and valuable or promising varieties of every species of economic plant, tree or shrub. This may well come within its province, and may be made of inestimable benefit primarily to the agricultural classes and eventually to the whole people. But the distribution for testing must be systematized. If done at all by the Government, it should be through the experiment stations. These are now well organized in practically every State, and their officials are better informed as to localities and individuals within their territory for the intelligent and efficient accomplishment of this work than any outsider can possibly hope to be. All our reliable seedsmen, too, now maintain extensive trial grounds, and are ever on the alert to discover and bring out new varieties. These agencies have developed to a wonderful degree since the scheme of sending out free seeds was first inaugurated by the Government. There is not the apparent need there once was for the work of the latter, though there is still much that can be done, if only—and there's the rub—there was less politics in the business, and more plain business sense in methods adopted. I do not wish to be understood as casting any reflections upon the incumbent of the office of Secretary of Agriculture, whoever he may be: for he is but the victim of

**A VICIOUS SYSTEM**

which he did not create, and can only partially regulate, for it is beyond his control.

Another reprehensible practice of our beneficent Government, in which the Department of Agriculture is perhaps the most flagrant offender, is the publication of such vast numbers of bulletins, reports, articles, etc., on every conceivable subject that by any possibility can be construed as coming within its province. To such an extent is this carried that a monthly bulletin is published, giving the names of the different publications during the month, together with their price; for many of them are sold for five cents and upward. Then a monthly paper is issued, called the *Crop Reporter*; but while some of the information it contains may be valuable, most of it is so ancient that it is useless. Of course, the initiated know that the Government printing office, through which all these are issued, is only a part of the great political machine maintained as a haven of rest for partisans; but the practice of issuing many of these publications is a serious reflection upon the ability and sagacity of the agricultural press of the country. What earthly excuse is there for the Government usurping the work of the latter? But, then, no self-respecting paper would give space to some of the subjects treated in these Government prints.

**MORE BUNGLING.**

One personal experience shows the lax business methods prevailing in connection with this work. It has been my lot to change my post office twice within little more than a year. I had received many of the publications of the Department of Agriculture for many years. At each change, I requested the Department to change my address on its mailing list. It was done to the extent that I received the publications at the new office, but they

continued to come to the old; so that, the last I knew about it, they were coming to three different post offices. How long would a private business continue under such methods? But these are political business methods, and are only samples. The question that should come to every thinking, self-respecting farmer, is: What is my duty with relation to all these flagrant abuses?

Bergen County, N. J. F. H. VALENTINE.

**Summer Care of the Root and Corn Field.**

In order to attain the greatest measure of success in raising roots, the preparation should begin the previous fall. As soon as possible after harvest the stubble should be skim-plowed and then harrowed, and two or three weeks after, cultivate and harrow again, and some time in October haul out about sixteen loads of manure per acre and plow down. If all this has been done, it is only necessary in the spring to cultivate with the spring tooth cultivator, then harrow and cultivate again the cross way of the first cultivation, and the ground will be ready to drill up for mangels, sugar beets, and carrots. We find it best to drill up in the morning and sow in the afternoon, and then, a day or two after, go over the drills with the land roller. After we get the mangels, etc., sown, we at once proceed to get our corn, potato and turnip ground ready. The ground that we could not manure last fall has been mostly manured during winter, hauling out and spreading from the sleigh or wagon. When the weather is dry we find it better to harrow every two days what we have plowed, and then when finished harrow across; and if the weather is dry roll before marking. We mark off three feet each way, and plant, from the 20th to 26th of May, with a corn planter, from four to six kernels in each hill. We save the best ears when husking in the fall and braid and hang up in the woodshed. Boughten seed is often a little disappointing. We plant the potatoes, three to four sets in each hill, same as corn, making holes and covering with the hoe; and after corn and potatoes have been planted a few days, and just before they come through the ground, we go over the whole with the common harrow, and sometimes go over twice, but in this we have to use judgment and be guided by the weather and state of the ground. The harrowing kills the small weeds which have sprouted, and breaks the crust so that the young shoots can spring up much easier, and it saves a great amount of hoeing.

It will now be time to cultivate the mangels, carrots, and beets, and after this has been done we generally take the flat hoes and pare off the sides of the drill as close as possible to the young plants. This gives them a chance to grow larger before thinning out, and stops the weeds from stealing the food that the plants ought to have.

Now the ground intended for turnips, which was plowed and harrowed along with the corn ground, will require to be cultivated with the spring-tooth cultivator and harrowed in a few days, and, perhaps, have these operations repeated before sowing, which should be done in our latitude from the 10th to 17th of June. Before drilling, we sow broadcast a mixture of salt and ashes. If the seed is good, about 1½ pounds per acre is sufficient, and a day or two after sowing roll with the heavy roller.

The corn and potatoes should be cultivated about once a week, and after rain, until the corn gets so tall that it breaks it down to go amongst it with a horse. We cultivate deep at first and as shallow as possible the last times. We intend going through our roots this year with a subsoil plow. We have been thinning our mangels and beets with the turnip hoe, same as turnips, the last few years, and have done it much quicker than by the old method of hand thinning. When the roots are carefully thinned out there is not so much to do again, but we always try to go through again, taking out any small ones where more than one plant is left, and cutting off any weeds that may have cropped up since the thinning-out process. We have discontinued the old process of hilling-up and use altogether flat cultivation. Some time in July we drill up the headlands and sow Greystone turnips, which keep the ground clean and make a nice change for the cows in the fall. We go through the corn and potatoes with the hoe to cut out any thistles or other weeds that the cultivator may have missed, and any corn that may be too thick; but, generally, with us there is very little to do with the hoe. We put Paris green on the potatoes with water, having attained most success by that method. We plant pumpkins with the corn. D. LAWRENCE.

Oxford Co., Ont.

**Farmers' Institute Excursions to the Ontario Agricultural College, June, 1901.**

- Saturday, June 15th—W. Huron (G. T. R.), Halton (G. T. R. and C. P. R.).
- Monday, June 17th—Peel Tp. and Drayton Agr. Society (or W. Wellington).
- Tuesday, June 18th—S. Ontario and S. Simcoe.
- Wednesday, June 19th—S. Oxford and Haldimand (G. T. R.), N. Oxford (C. P. R.).
- Thursday, June 20th—E. and W. Lambton and E. Huron.
- Friday, June 21st—N. and W. Bruce (G. T. R.), Dufferin (C. P. R.).
- Saturday, June 22nd—N. and S. Norfolk.
- Monday, June 24th—N. Ontario and Peel Co.
- Tuesday, June 25th—South Perth.
- Wednesday, June 26th—S. Grey and Parry Sound.
- Thursday, June 27th—South Bruce.
- Friday, June 28—W. Simcoe.

### Improving Rural Homes.

House builders and home builders are two very different things. Some houses we get inside of and call them homes. That we first sit down and study what we wish and need and like, and then build to those needs, is the common-sense plan. Then no two houses can be alike, but each one will be specially suited to the folk inside and the landscape outside. There are two things to consider in building: (1) Ourselves and what we personally need; what our individuality is and what a home can do for us; (2) what the building site is capable of—all it can afford or furnish to feed our souls and make our lives pleasant. All this we are entitled to get out of house building.

I remember reading somewhere, "It is a solemn thing to build even the outside of a house." And the reason was because you revealed yourself in doing so. A house says always that's the sort of man Mr. Smith is. And reserved, even shy, as some people are, they placard themselves up like circus bills on a barnside for all the world to read. But there is something more done by a house; it creates public sentiment and public character. So it comes about that most people can really do no more good than in building a truly beautiful house—a house that expresses a beautiful lot of ideas, worked into unity in a beautiful life. For instance, you know houses that express welcome and hospitality, and others that are forbidding. You can think of a house that is modest and smiling; and you can think of another that is absurdly bold and conceited. Then at least one half of the modern houses are efforts at mere imitation. They are a jumble of a lot of things, pretty enough in their places, but when out of place they are no more admirable than a lace collar on a dog. House building must become a much more serious matter than it is in the making of a home.

I will compress a handful of hints of brief space. A home ought to be placed on a rise of ground, even if this carry it back further from the street than you would choose otherwise to place it. You should be so situated that every stream runs away from you rather than to you. There is no position for a rural or suburban house worse than where it will catch the street dust. Material for a house, I believe, should be that which is most characteristic of the place where it is built. There is no reason for a building of wood where stone superabounds. Brick is ideal material in some sections. An old inscription on a brick pyramid reads, "Do not undervalue me by comparing me with pyramids of stone. I am better than they, as Jove exceeds the other deities." A broad house is generally advisable; and seldom a tall one—that is, in the country. Our only reason for a high house is to get away from the soil with sleeping rooms. But the air five feet from the ground ought to be as good as that at twenty-five. If we have thorough drainage it will be. Height will be secured by building on a rise. Breadth saves time and strength in climbing. It gives quick access to the whole house. It keeps us near the flowers and grass. It suggests hospitality.

Houses should never be considered apart from their surroundings. Americans do not appreciate blossoming trees in making up home life. It is possible, besides a shrubbery, to arrange our tree-planting so as to have a succession of bloom around our houses for several months. The earliest quite interesting trees are the English elm and the red flowering maple. The former is covered with what looks like a profuse crop of hops. The red maple is a glorious tree in bloom. The shades vary; but some are intense scarlet, others nearly a pure white. The Kentucky coffee tree is extremely interesting for affording a very spicy flower, not very conspicuous and not lasting. The basswood about the first of July is a glory for its beauty and perfume, but it is also a superb bee-feeder. Magnolia Acuminata and the American tulip-tree are entirely hardy and healthy, and very showy.

Lowell and Morse in their accounts of Korea and Japan emphasize the love of those people for the plum and cherry. Cherries we can have in bloom for three weeks, beginning with Early Richmond and ending with Montmorency. Mr. Lowell tells us it is not easy to convey to the Western mind an idea of the mingled love and adoration that the Eastern nations lavish on these flowers. Sonnets innumerable are written in their praise. Indeed, the whole life of these interesting nations is bound up with their blossoming trees. Are we not so far neglecting one side of culture; and the value of trees from an esthetic point of view? "The laziest of mortals are stirred to enthusiasm and travel many miles to get a sight of the cherry trees before the morning's mist has left them." It will pay us well to cultivate blossoming trees for the blossom's sake, not considering the future fruit. Our apple trees I find are actually scorned by landscapists; but for flowers and helpfulness they lead all trees. I have been able to select two deep-red flowering in such profusion that they ought to be everywhere.

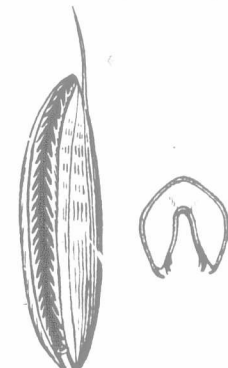
Hedges and wind-breaks are to my notion next after trees to be considered. We need these for two reasons besides their beauty. The first is because a house to be homeful should be cozy and protected and, to some extent, secluded; and the second is because we can and ought to largely control the variabilities of climate. It is possible to make a difference of two degrees by having evergreen wind-breaks on the north and west. But, better still, we can prevent the extreme effects of frost by breaking the drying winds that sweep over us.

This will be felt not only by the trees and general vegetation, but by animal life, and ourselves included. Set it down as a matter of human health to break the harsh winds and prevent them from searching us through and through. I know of places where a delicate person can live with comfort on one side of a street, but on the other cannot endure the climate. The only reason is that on one side the trees have been cut away, and no wind-breaks planted; while the other is hedged in and bordered in with groves. The value of our evergreens is not understood. As formally sheared ornaments, standing before a house, their utility is equal to their beauty; they are monstrous; but allowed to grow with native grace and freedom, where they will take the teeth of the wind, they are our natural protectors.

The chief trouble with flowers about a farmhouse is that, as generally grown, they take too much time in weeding, and in lifting or covering in the fall, and planting out in the spring. It is a mistake for a farmhouse to try such lawns as are seen in cities. Grading, and leveling, and sodding, and a constant run of lawn mowers, is not only expensive, but out of place. Instead, let me suggest to our rural homes to plant a shrubbery. Shrubs, as a rule, cost very little labor; and they do not die out and need replacing. There is no weeding; and they give a profusion of flowers the season through. Yet, as a rule, our country folk work patiently at very poor lawns and very troublesome flower beds; and have very few shrubs. Select a slope from the house most pleasant for walks and seats—not necessarily in front. It will not be too large for a moderate homestead or a farm of twenty acres, if you set off half an acre for this purpose. Do not grade it any further than to remove unnatural knobs and ridges. Clean it of weeds, and leave the natural slopes. If convenient, have a drive or a walk around it. Select shrubs for a succession of bloom—from the Forsythia of April to the witch-hazel of November.—E. P. Powell, N. Y. Independent.

### Chess and Fall Wheat.

SIR,—A great deal of the fall wheat in Ontario has been destroyed during last autumn by the Hessian fly, and as the grass known as chess, which is wrongly supposed by some farmers to be a degenerated form of fall wheat, is not attacked by this insect, there will probably be a good deal of this grass noticed in fall-wheat fields this spring.



Chess Seed.—Side view and cross section.

Chess is just now sowing and will be easily recognized in the fields. There has been a considerable correspondence in agricultural papers on this question of the supposed identity of chess and fall wheat. May I suggest to those who wish to convince themselves whether or not the chess plants now to be found in fields grew from a grain of wheat or from a seed of chess, that they dig up very carefully some of these plants and wash out the roots, when they will find attached to the root the old seed, which is quite different from a grain of wheat. As a rule, it will be found enclosed in its double husk, while, of course, the grains of wheat would be naked. A seed of chess is about half the size of a grain of wheat. The groove down the face is deeper and wider open, and the inner husk is fringed on both sides with stiff bristles. There is much less substance in a seed of chess, and a cross section of the seed gives an outline almost like a horse shoe, the whole seed being shaped like a little boat.

JAMES FLETCHER,  
Central Experimental Farm.

[NOTE.—After the above letter was received from Dr. Fletcher, he sent along a chess plant well out in head, the roots of which had been washed free of earth, so that the husk of the parent chess seed could be clearly seen attached to the roots. It was attached some three-quarters of an inch beneath the crown, among the fibers, and was easily determined to be chess. This should settle the question as to origin of chess, at least for those who dispute that the chess plant can be produced from chess seed.—Ed. F. A.]

### Practice plus Theory—Success!

The agricultural college of to-day is the embodiment of technical education along agricultural lines. At one institution we find sheep-shearing competitions and plowing matches going on among the students. At another, live-stock judging contests for medals and the honor of being picked to represent the college at the International Live Stock Show, or to act as judge at the local fairs. At another, hard work is being done in the dairy making butter for a national contest. At still another the students are studying and judging cereals, roots and corn. One institution gives a training in farm butchering; another in the construction and handling of farm machines, from the windmill to the gasoline engine. Spraying of trees or making solutions to knock out smut or other fungi keeps the college man well employed. The work in the blacksmith and carpenter shop has made him expert enough to save many a journey to town. He now builds his own gates or henhouses. The faker has a sorry time with the college man. Lightning rods, aquatic separators, patent churns, etc., don't go with the agricultural student. His

knowledge of political economy is ample enough to enable him to prick the bubbles of the demagogue. So that altogether from the strictly dollars-and-cents point of view a college education in agriculture pays.

"Now is the summer of our discontent," because we have been warned out by the pathmaster, and neighbor Jones will persist in talking politics and scandal instead of grading up the road. Statute labor is a relic of the old feudal system, when the grand lords held bees to cut their wood, steal their neighbors' cattle or their wives, and otherwise hold high-jinks. Roadwork of the enduring kind is best done by contract and under the supervision of a competent civil engineer. If so performed, we shall cease to see efforts made to get water to run up hill, or the low places made still lower, which, under the old statute-labor system, was often the case.

### DAIRY.

#### Cream Starters.

The following extracts are from an address by G. L. McKay, Professor of Dairying at the Iowa Agricultural College, a former Canadian buttermaker, who has gained the distinction of being looked upon as an authority upon modern creamery practice:

What is termed a natural starter is easily obtained during the summer months. Take a number of samples of your best milk in sterilized pint jars and keep them at a temperature of about 70° until they sour. When you find a sample that has coagulated solid without any pinholes and has a sharp but pleasant acid taste, you may know that you have the right fermentation present to give the best kind of a flavor. Then pasteurize some of your best milk and inoculate with this good starter. In pasteurizing, the milk should be heated to 180° and kept at that temperature for 20 minutes. If it possesses a little cooked taste it will do no particular harm. We find that about 3% starter is sufficient to propagate the new starter with, so that it will be ready in 24 hours. A good temperature to ripen a starter to is 75° Fahrenheit, and during the summer 65°. A few degrees either way will not make much difference. A starter is usually at its best for using when it contains about 45° to 50° by the Mann's test or .8 or .9 of 1% by the Farrington test. Where the milk is received every other day it is advisable to use a smaller per cent. of starter in propagating the new starter, and ripen at a low temperature, preferably 65°.

After spending a month, during our short dairy course, in our starter-room where we carried forward daily about 20 starters, I found that when a starter goes beyond 50 it assumes a stringent or bitter taste, and new starters propagated from this would always have the same taste. I cannot emphasize too strongly the importance of cleanliness in everything pertaining to a starter. I strongly discourage the use of cloths or papers for covering the starter cans.

The Cooley cream cans without the glass have been giving us the best results as starter cans, as they have a sloping cover which permits a passage of air and at the same time prevents dust from falling into the cans. These cans can be placed in a tank of hot water, and the milk pasteurized with very little trouble. They are easily handled and the temperature can be controlled without difficulty.

The per cent. of starter used in the cream depends on the season of the year. This may range from 10% to 30%. In June when the atmosphere is pure and the climate usually moist, and nature has done everything to make the air lively and sweet, very little starter will be required, if any, if patrons observe moderate care in cleanliness. But during the extreme hot weather, and again in the winter months, starters should be freely used. I would not hesitate to use 40% of a good starter if necessary these months.

Do not understand me to recommend using a 40-per-cent. starter at all times. I would use as high as 40 per cent. only if the milk is tainted. In that case you can use a heavy starter with good results.

During the short winter course which has just closed, a little discussion arose as to the effect of a starter on milk two days old when brought to the creamery. I had our men turn in the cream screws and skim a 62% cream. We took 100 pounds of cream and placed it in a small vat. To this we added 50 pounds of nice morning's milk, which seemed free from taint, and 33 pounds of good starter, thus giving us about a 25% mixture, including cream, milk and starter. The ripening was carried to about 40°. The butter scored 44 out of a possible 45 on flavor; some eight days later gave it a score of 42½ on flavor. This was a practical demonstration for our students of the theories given in the class-room.

Now, if these conditions can be brought about at Ames, in the dairy school, is it not possible to obtain the same results in most any creamery in the land by observing the same rules?

The importance of starters and cream-ripening is attracting the attention of the leading dairymen of the land more than they ever did before. The great Hazelwood Company has engaged two of the best men we had during the past year, to prepare starters and attend to cream-ripening, paying them \$1,200 per year each, and we have just furnished them the third man at a little less salary. The dairy schools have not overstocked the market with first-class men. Prospects were never brighter than now for up-to-date, wide-awake, intelligent butter-makers.

### Cream-Gathering vs. Milk-Gathering Creameries.

To the Editor FARMER'S ADVOCATE:

SIR,—The points raised by "Economist," in your issue of May 15th, on "The Farm Separator in Home and Creamery Buttermaking," is of importance to dairymen engaged in buttermaking, and a practical discussion of the subject by creamerymen may be the means of improving the quality of Canadian butter and lessening the cost of production. It is a well-known fact that the quality of butter in Ontario is not improving as rapidly as we would wish, although the Government has done a great deal to assist the industry by providing well-equipped dairy schools for the training of butter-makers, by granting bonuses to creamerymen to build suitable cold-storages in which to keep the butter, and by furnishing refrigerator cars to carry the butter to the market. The tastes of consumers are becoming more fastidious and the buyers more exacting. Competition is keener, and, consequently, a better and more uniform quality of butter is demanded, and in order to furnish this we must encourage by all possible means the manufacture of butter on the factory system. It is a regrettable fact that a large quantity of butter is still made in "farm dairies," which is of uneven and oftentimes poor quality, owing to its being made in small quantities by so many different makers, and the conditions for making and marketing being unsuitable. But the quantity of homemade butter is decreasing each year, owing to the scarcity of help on the farms and the advent of the cream-gathering creameries, which collect cream over a large district and enable farmers to patronize a creamery who were formerly unable to do so. If the cost of equipping and operating a private dairy, as well as the time required to perform the work, the lack of uniformity, and the low price usually received for the butter, were taken into consideration, I think that every farmer would agree that it is more economical to patronize a creamery.

The creamery has been the means of improving the quality and raising the price of butter both at home and abroad, thus creating a better market at home for the private dairyman, who would otherwise be unable to engage in the business profitably were it not for our export trade, which prevents the bulk of the butter going on the local market.

The method of conducting the creamery will depend somewhat on the locality. If a large quantity of milk can be obtained within a short radius, the separator system will possibly be preferable under the present conditions, owing to the fact that much more attention has been given to that method of making butter by dairy journals and instructors, and in teaching the farmers how to care for their milk properly, and the maker having more control of the flavor of the cream. But this system is so expensive that it has not become popular in Western Ontario, especially where the by-products are not utilized, as at some creameries, where the skimmed milk is made into cheese for the manufacture of glue and other products, which brings a good revenue to the farmer. Where stock-raising is combined with dairying, the cream-gathering system has given the best satisfaction, the skim milk being in better condition for feeding, and the cost of manufacturing much less. The chief objections to the cream-gathering system are the difficulty in reaching the patrons, a large number of whom live a long distance from the creamery, and the cream being frequently delivered in a partly sour or tainted condition, which gives the buttermaker very little control of the flavor of the butter. But these difficulties can be very largely overcome by a proper system of educating the patrons in the care of their cream and adopting the hand separator for skimming the milk, which assists in purifying the cream and making it of more uniform quality, and as most of the export butter produced in Western Ontario is made on the cream-gathering system, more attention must be given to this method of making if we are going to raise the standard of quality. The losses, both in quantity and quality, of the deep- and shallow-setting system must be demonstrated to the farmers, the dilution fake must be discarded, and the advantages of the hand separator explained. There is no reason why a small quantity of cream could not be kept in a clean, cool place and delivered at the factory in as good or better condition than a large quantity of milk. That good butter can be made on this system is proven by the fact that where the proprietor of the creamery has adopted some means of educating his patrons in the best methods of caring for cream, the butter sells for as high a price and competes as successfully at exhibitions as does the butter from the separator creameries. It is certainly time that a uniform and good quality of butter should be sent from Canada, at a minimum of cost to the farmer, in order to make dairying a success; but too many farmers figure solely on the cost of manufacturing, without taking into consideration the cost of producing the milk. An American writer recently stated that the State in which the buttermakers were paid the highest salaries produced the finest quality of butter, and the farmers received the most money for their milk. And the same is true in Canada. The makers who receive the highest salaries are making the finest quality of cheese and butter, which sells for the highest price and maintains our reputation; and if, instead of asking a maker to work for the lowest salary for which they can engage him, the farmers would study more the best methods of cultivating the soil to produce the highest possible quantity of milk per acre, and of

breeding, selecting, feeding and caring for their cows so as to produce double the amount of milk per cow (which might easily be done in some cases), the profits in dairying would be so much greater than at present that farmers could well afford to increase the maker's salary, which would encourage the best men to remain in the business, instead of seeking positions in other lines of work, as is the case at present. The separator creameries are decreasing in number each year in Western Ontario, and the cream-gathering creameries increasing rapidly, as in this system we are enabled to manufacture a very large quantity of butter of uniform quality, and they also tend to do away with the small factories, which are a curse to the dairy industry.

ARCHIBALD SMITH,  
Creamery Instructor,  
Oxford Co., Ont.

### A Little Controversy.

"ECONOMIST" REPLIES TO MR. F. J. SLEIGHTHOLM.

To the Editor FARMER'S ADVOCATE:

SIR,—As was to be expected, my article of May 15 has drawn forth a criticism from the "owner and operator" of a creamery—a milk-gathering creamery—Mr. F. J. Sleightholm. This gentleman says he speaks from the standpoint of an "owner and operator" of a creamery, and gives me a few "facts," not merely thoughts or opinions, to chew upon regarding the cost of farm and factory separators. These "facts" would be very convincing if the initial cost only had to be considered, and I again wish to give Mr. Sleightholm, and others like him, credit for their enterprise in introducing the separator system, well knowing the difficulty of inducing the farmers to adopt new methods when it means a considerable outlay at the start. But although facts, as Mr. S. says, are stubborn things, they may sometimes be stated in a manner that is calculated to mislead; and that is the manner in which he has stated them when he compares the cost of his four power separators with that of the two hundred and fifty that would have been required to do the same amount on the farms. One power mill in an elevator would clean all the grain grown on two hundred and fifty farms, and would not cost nearly as much as two hundred and fifty farm fanning mills; and yet we find that every farmer prefers to have his own fanning mill, because it pays, just as the farm separator pays. Mr. S. admits that the farm separator has come to stay "in its right sphere." Will he kindly inform your readers what its "right sphere" is, if not to separate the farmer's cream from his milk?

Would it not also be well for him to tell your readers that the reason the "local buyer" and the "English importer" referred to in his article did not want the cream-gathered article was because of the scarcity of farm separators, and because a large number of the patrons of cream-gathering creameries still separate by the gravity system, if such is the case?

This last is merely some more of my thought, and as, from the rather caustic tone of Mr. S.'s article, I presume he does not set a very high value on the thoughts of any one but the owners and operators of separator creameries, I beg to refer him to the answers given to twenty-six questions submitted by *The New York Produce Review and American Creamery*. They can be found in issue of May 22nd, 1901. They cover the whole field pretty well, and are intended more for the instruction of owners and operators of creameries than for farmers, and should therefore be of more than passing interest to Mr. S.

Questions 3 and 4 relate to the use of farm separators, and the answers given are of interest to every one who makes butter or patronizes a creamery, and I regret that space will not permit me to give them in full.

Question 3 asks: (a) Is the use of farm separators increasing in your locality? (b) In your experience, have they lowered the quality of the creamery butter? (c) What is the tendency of their effect on the creamery system?

From the answers received to this question, so far as given, the consensus of opinion is: (a) The use of farm separators is rapidly increasing. (b) The quality of the butter is not necessarily lowered thereby. (c) Concentration of creamery plants covering larger territories, and less expense than the whole-milk system.

Question 4: (a) Are farm separators advantageous to creamery patrons? (b) To creameries? (c) To the creamery business as a whole?

The answers to this question show conclusively that: (a) The farm separator is advantageous to creamery patrons. (b) It is no disadvantage to creameries, and is likely to benefit them when it becomes universal. (c) It is certainly advantageous to the creamery business as a whole.

Now, if my deductions are correct, and I have taken them from a summing up of the answers of the following gentlemen—Prof. McKay, of Ames, Iowa, Dairy School; E. L. Child, Cornish Flats, N. H.; H. C. Hansen, Scandia, Minn.; Ludwig Engleman, N. Yakima, Wash.—all prizewinners—I think they should go a long way toward sustaining me in the position taken in my former article.

The farm separator has come to stay. Its proper sphere is to separate the milk as soon as milked. The milk will not then have absorbed any odor, as it does not absorb until its temperature has fallen more than 20°. The cream should be immediately cooled to 40° if possible, and kept at a low temperature until it is sent to the creamery. By this means I claim that the chances of an A 1 article are better than where a large amount of milk has to be taken care of on the farm, and where the facilities for

handling it are often inadequate. The fresh skimmed milk is vastly superior to the factory article. It can be fed at the proper time. Fourteen-fifteenths of the cost of drawing is saved. If the factory stops, the farmer can still take care of his milk. The farm separator pays. ECONOMIST.

### POULTRY.

#### Turkey Cures---Care of Turkeys.

BY MRS. M. E. GRAHAM, MIDDLESEX COUNTY, ONT.

In all diseases of turkeys, my small experience teaches me that a quick death, with burial, or, better still, cremation, is usually the most profitable remedy. This might be emphasized when the disease appears to be contagious. We feel as though we ought to do something to save them, in view of the money they represent. Yet, it were better to lose the penny and save the pound represented by the remainder of the flock. My experience also teaches me that lice cause the "passing away" of the great majority of turkeys, and it is just possible that diarrhea and kindred ailments may be brought on by lice having weakened the constitution of the birds. Yet, I have found, when killing healthy, fat turkeys, that they had been the feeding grounds of several colonies of apparently well-fed lice, one of which would cause us to lose a pound of flesh from nervousness and exhaustion in our endeavors to pursue it.

When the diseased birds are killed or quarantined, it would be a good plan to spray the rest of the flock with a safe disinfectant, and also to disinfect their roosting places, and, if possible, to plow or dig the ground that they have frequented. Mrs. Mackey, in *Reliable Poultry Journal*, for nearly all turkey ailments recommends the use of Epsom salts in the drinking water. She says: "It takes away the impurities from the bowels, and, at the same time, purifies the blood. A little kept in the drinking water is good, but the best thing I have ever tried is extract of logwood." Again, she says: "I have used extract of logwood for years. There is no danger of using too much, and there is nothing better for ordinary bowel trouble either in chicks, poults or grown fowls. I make the water a rich wine color." In every case "prevention is better than cure," and I believe that a great many diseases may be cured before they arrive by clean quarters, plenty of grit, access to coals, and "rustling" for their food, which gives variety and exercise.

This year I have registered a vow that, if possible, I shall hatch all turkey eggs in incubators, for several reasons. My very earliest were put under a hen. These were intended for my show turkeys. But, alas! the hen sat for three weeks and four days and left her nest, and I was not there just about that time; consequently, the turks died in the shell. The next lot were under three hens. Something destroyed all but one egg, on the twenty-sixth day, in one nest. The other two nests were all right, with the exception of one or two crushed in the nest. These are thriving, and came safely through the cold, damp weather of May. I have sixteen with a hen that is not for sale, though she is a half-bred game. She is always willing to take advantage of every bit of dry weather and sunshine and take the flock on a foraging tour all through the orchard and garden, and when provisions are not plentiful she brings them to the back door, where a handful of rolled oatmeal, a sprinkle of dry bread crumbs, some mashed potatoes, or, perhaps, some squeezed-out curd, is forthcoming. I have given them the choicest situations on the lawn, giving them only a small coop and a small pen, both of which are convenient for one person to move, and I move it every day, and during the wet weather, when they were nearly always confined to the pen, it was moved two or three times during the day.

My next lot of eggs were put under my best Bronze turkey hen. She had succeeded in crushing five before they were able to get out. I shall not give them anything but a handful of fine gravel until they are thirty-six hours old, and I have decided that as near as possible to nature's method of feeding them is the best, and that it is not so important what we feed so long as we do not feed it wet or too much at a time. Last year I found greatest trouble with the latest hatches that were given to common hens, but I believe the original cause was lice, which increase more quickly in hot weather. My early flock has only required one dusting. This year I am using sulphur, applied with the insect blower. The old hen has been dusted twice. They all enjoy the natural dust bath. Mrs. Mackey recommends a little cream or lard rubbed on heads, between wing feathers, etc., but says not much or it will kill the turkeys. I find the young turkeys grow larger when they have free range, but I always like to see them shut in their coops at night until they are large enough to roost in trees, and I do not like to have them out in the morning until the long grass has become dry. Cold and dampness combined will kill them, or, at least, retard their growth. When they are two or three weeks old, I begin feeding the old hen some wheat, in order to teach them to eat it, as I wish as much as possible to reduce the labor and expense in connection with turkey-raising. Some time ago there was a discussion as to the advisability of using old males. I was almost inclined to think that my Mammoth White male would be on the superannuation list, but I find that this year, though he is three years old, yet nearly all the eggs are fertile and the turks strong and lively.

**Poultry Raising and Fattening for Export.**

BY J. W. CLARK, POULTRY FATTENING STATION, BRANT CO., ONT.

As poultry raising and fattening for export is soon to become one of the leading industries of this country, and it can be put in as a side issue on almost every farm, and can be looked after largely by the boys or girls, there is no reason why almost every farmer cannot arrange to raise and fatten from three to four hundred birds, which would bring a return of from \$150 to \$200 if properly fattened. There is an increasing demand for Canadian poultry in the British market since the Dominion Government, through the untiring zeal of Prof. Robertson, has arranged an almost perfect system of cold storage, whereby we can land our poultry on the English market in the finest condition possible.

The first important point in starting this industry is to select a suitable breed for the purpose. Almost any of the Asiatic, American or English classes, or crosses of these, do very well for fattening. In April 15th issue illustrations of the correct type to select for this purpose were published. After getting a suitable type, the first essential to secure good fertile eggs is to have a good active male. A great many run off with the idea that one or possibly two males are sufficient for 75 or 100 hens. You cannot make a greater mistake. When your eggs hatch you will wonder why so many have no chicks in them, and you have a lot of rotten or infertile eggs, a great many chicks not being able to break through the shell, and a great many that do manage to get out cannot stand the slightest dampness of cold, but die. An infertile egg will not rot or have an offensive smell though it has been under a hen for 21 days. Rotten eggs are due to the germ having started, and not being strong enough, dies between 5 and 15 days of incubation, largely due to having too many hens to one male. Other causes are very fat hens, feeding soft or stimulating food to force egg production, lack of exercise, inbreeding, very young pullets, and using poor, weakly males. There is no better food to produce good fertile eggs than whole grain with considerable meat scrap or bone meal.

After your chicks are out, do not feed till 24 or 36 hours old, as nature provides for this length of time. A great many chicks are lost or greatly set back by the first week's feeding, as many think that soft food is the proper thing for little chicks, and will soak bread in milk or water, feeding it sloppy and wet, thus causing diarrhoea, which is the greatest trouble among young chicks. There is nothing better than oatmeal fed dry, with a few boiled eggs chopped fine added; this will answer for first week. Second week take half corn meal and oatmeal and mix with sour milk, adding several eggs, and bake in a cake; this crumbled up makes a first class ration. Once a day feed cracked wheat or screenings from wheat or millet seed may be scattered among some chaff or chip dirt; this will keep them busy, and exercise develops the muscles, which is essential for strong birds. If they are confined in coops they relish a little green food of some kind—lettuce or onion tops chopped fine, or a little young clover, answer well. Do not forget to place plenty of fresh water before them at all times, also keep some coarse sand or grit constantly before them. Another important food is meat or bone meal, especially if they are confined where they cannot get any worms or insects. This is essential to insure rapid growth.

A great enemy that young chicks have to contend with is lice; it is almost impossible to force any growth on young chickens if the yhave lice on hand, and dust the hen quite often, also while the chicks are feeding give them a little sprinkle—a very little is sufficient. Avoid feeding sour or stale feed at all times; never give them more than they will clean up at any time. A great many chickens are stunted by feeding too much grain food. It is just as easy to stunt growing chickens as it is to stunt young pigs. They need oatmeal mixed with other grains largely, as this is one of the best grains for growing chickens; it does not overheat their blood like most heavy grains. At four months old they should be large enough to crate and feed for market.

**THE FINISHING PERIOD.**

It is useless for any one to think they can fatten poultry properly by letting them run about the yard, as has been commonly done for the local markets. They must be confined in close quarters if you want to get the best results, as by letting them run at large their muscle becomes hard, which toughens the whole bird. Crating is by far the best method to fatten. Crates made 6 or 12 feet long by 20 inches square, with partitions every 2 feet, will hold 4, 5 or 6 birds, according to size, in each division. With a slatted bottom the droppings fall through, which saves a lot of trouble in keeping clean. Another advantage of the crate is that your birds have no room to fight one another; they are always there to take their feed. If it happens to be a little late you can hang up a lantern, and they will eat just as well, where if they were in a pen on roosts they would miss a meal now and then, for you have to feed quite early at night in late fall, or if soon gets too dark, and they won't come down to feed. If you have no crates your next best method is to coop in close quarters. Make a trough so the birds can put their heads through and eat and not get on the feed with their feet. The trough I use is

12 feet long, made V-shaped, of two boards, each 5 inches wide. Over it stands a bottomless box 1 foot high, with slatted sides, through which they put their heads when feeding. Pullets will do fairly well fed in this manner, as they are not as quarrelsome as cockerels. Before putting them in the coops see that they are free from lice; they will not thrive or fatten if infested with lice. Dust well with insect powder—once does. If their legs are rough or scaly, it is caused by a parasite; this gives the bird an old and unhealthy appearance, and a little coal oil or grease will stop this trouble.

**THE PROPER FEED**

for fattening is one-third finely-ground oats (with hulls out if possible), one-third corn chop, one-third buckwheat, mixed with skim milk to a porridge—not too stiff; one-third shorts may be added in place of corn or buckwheat with good results. It is essential to have the skim milk, as this gives the flesh a creamy-white appearance; it also keeps their blood cool. You must be careful on the start not to stall your birds, or they will go off their feed; give sparingly three times a day for two or three days. Never at any time give them more than they will eat up clean. After three weeks, twice a day will do to feed; for the fourth and fifth weeks, a little tallow should be added—one pound to 60 or 70 birds twice a week. The tallow makes the lean flesh much more juicy. If you are scarce of skim milk, potatoes pulped and boiled and mixed with grain will give good results; the birds relish potatoes, and it makes a cheaper food. If you feed grain alone, their blood soon becomes heated, and they soon start feather-pulling. It is a great mistake to feed whole grain to fatten poultry; you can afford to grind it much cheaper than they can; they will not thrive at all if confined on whole grain. A great many have the idea that you must have a crammer machine to fatten poultry; with it you can force them to fatten in less time, but they will get just about as good in one week longer feeding, unless it be a few poor feeders. The crammer machine means considerably more work, and I do not think it would pay a person feeding a small number to invest in one. I had quite a number last year that weighed 7 and 8 pounds, with no crammer used. There are usually quite a number that are poor feeders which I put on the crammer. A little powdered charcoal added twice a week keeps them in a healthy condition.

**POULTRY KILLING**

for export must be done in the right manner, as no birds are exported with their heads off. They should be bled in the mouth or have their necks broken. Plucking must be done dry, which can be readily accomplished if commenced as soon as the neck is broken and before the heat leaves the body. If the birds once start to get stiff and cold it is a big task to pluck them. Leave about 3 inches of feathers on top of neck next to head, also a small ring at hock joint. As soon as plucked, draw their legs down alongside their breast by taking a piece of cord, double, and tie two or three toes of one leg in loop and draw over back, putting toes of other leg in loop; this should be good and tight, as it gives the bird a much more compact appearance. Then put breast down on shaping board, putting a brick on the back. As soon as the birds have all the heat out of their bodies they should be wrapped in parchment paper and packed in cases and put in cold storage.

**RECORD CARD**

for the poultry-fattening station at Onondaga. Number of chickens, 27. Weight when placed in crates, 151 pounds. Commenced fattening November 20, 1900. Cost, \$9.06. Average cost per chicken, 33 1/2 cents.

	Feed Consumed		Chickens.		Remarks.
	Lbs. Ground Oats, Shorts & Buckwheat.	Lbs.	Lbs. Weight.	Lbs. Gain.	
First week	48 1/2	Potatoes & Water 120	170	19	Potatoes pulped and boiled, weighed after.
Second week	46 1/2	Potatoes & Water 126	188 1/2	18 1/2	Same as first week.
Third week	68	Milk 103	208 1/2	20	Separator milk used, no potatoes; 3 lb. tallow.
Fourth week	98	Milk 182	231	22 1/2	Crammer used; 4 lbs. tallow.
Fifth week	Sold				
Totals, Feed and Gain	261 1/2	540	231	80	
Feed consumed per lb. of Gain in Weight.	3 3/4	6 7/8	Average gain in weight per chicken, 3 lbs.		Cost of feed per lb. of gain, 4 1/2 cts.

Date of killing, December 20, 1900. Starved before killing, 36 hours. Price realized per pound, 8 cents; per chicken, 68 cents. Remarks: Grain used: 1/2 oats (finely ground), 1/2 buckwheat, 1/2 fine shorts. Potato ration much the cheapest.

**A New Nest Egg.**

AN EASY LICE REMEDY.

While viewing the flock of Barred Rocks belonging to one of the Neepawa poultrymen, we were shown his method of lice prevention, which was to place in each nest three or four moth balls (naphthalene). This poultryman states that the balls are very effective for the purpose intended, in which statement we feel bound to concur, as no self-respecting hen louse will, we believe, stay in the vicinity of such a malodorous atmosphere. Moth balls are cheap, lice are expensive, so place some of the little white spheres in the laying and hatching nests.

**The Little Chicks.**

The boy who has been strolling round.  
Comes running in—What has he found?  
"Mamma," he says: "Come quick; come quick;  
I'm sure I heard a little chick."

When the little chick comes out of the shell it soon makes its presence known. Yet the little chirper isn't hungry, as some people imagine. It needs nothing but warmth for the first twenty-four hours of its life. We always give ours a hard-boiled egg for their first meal. Afterward, bread crumbs, oatmeal, and plenty of clean water. After they are two weeks old, we give them small wheat, some potatoes, and meat cut up in very small pieces two or three times a week. We keep them in a coop at night. The chicks have a little yard to run around in, where there is plenty of sunshine, but the hen is kept in. We had rather poor success in raising chicks this spring. In the first place, the hens didn't cluck early, and when they did cluck at last, they didn't hatch out nearly as well as usual. We had planned to have some nice flocks of early Plymouth Rocks, but we were disappointed. We set five hens about the same time. As the eggs didn't nearly all hatch, I broke some of them, and found a few dead chickens, but the most of the eggs were rotten. Well, I thought it would never pay to have the hens losing their time caring for a few chicks, so I decided to give them all to one hen and let her mother them. The first one I set had five chicks, so when the others were hatched I put them in the coop all together; but biddie No. 1 rebelled—she didn't want to adopt any children; she began to pick them unmercifully. So I huddled her out and put in No. 2. She acted just the same; flew at the poor little chicks as if to say, "Get out, you miserable interlopers, you don't belong to me and you shan't stay here with my youngsters." So I served her the same way as No. 1; but she wanted her own chickens, and nearly went wild when she was taken from them. She kept flying up against the coop for a while, then she would call the chickens to come to her. Then I placed her in solitary confinement for a few days. I then took No. 3, a quiet, motherly hen, and put her in the coop. She warmly welcomed her large family of foster children by taking them under her wings, though it wasn't easy for them all to get under. She seemed quite proud of her large family. She has taken good care of them, and I never before saw chickens grow so fast. They are large, healthy Plymouth Rocks. When I let the hen out of prison, that grieved so much over the loss of her little family, she went straight back to her nest. I had taken the eggs away that didn't hatch, but she didn't mind that. She seemed determined to stay there until she got another brood. I wondered how it would do to set her again. I thought perhaps she wouldn't sit the three weeks. But when I found her so persistent, I made a new nest for her in the same place, dusted her with sulphur, and gave her 14 eggs. That was just two weeks ago, and she has been sitting well ever since. I set another hen about the same time, so intend to reward this patient, persevering mother by giving her the other brood too, if she will take them. It would be too bad to rob her again after sitting so long.

Many people are complaining of eggs hatching poorly. One of our neighbors set three hens, and only had eight chickens. I think that the cause of failure was that the eggs were not fertile. Perhaps some of the readers of the ADVOCATE have had a similar experience, and can throw some light on the subject. I consider the exchange of thoughts and ideas, the experience of farmers and their wives, very helpful and interesting. One knows something another does not, and thus by carefully reading the experiences of others, each of us can be continually adding to our store of knowledge. A. R.

[NOTE.—Poor hatching has been generally complained of this spring even among expert poultry fanciers where the care given has been the best known. While it may be difficult to arrive at a just conclusion as to the cause of the trouble in all cases, the following causes are blamed: Too many females to one male, too close confinement during winter and spring, and a heavy laying season during the winter months. A. R. attributes the poor hatch to non-fertility, and states that many eggs were rotten, while a few had dead chicks. We would point out, however, that non-fertile eggs do not rot with three weeks' sitting; they do dry up a little, so that they will shake in the shell, but the contents are not putrefied, but smell fresh and appear as fresh eggs when broken. Some go so far as to consider them fit to use for cooking after being in an incubator or under a hen two or three weeks. Editor F. A.]

VETERINARY.

Care and Treatment of the Horse's Foot.

BY E. L. LOBLEIN, V. S.

My observations with the colt during the first year of its life have forced the conclusion on me that care and treatment during that time have much to do with the conformation of the foot when the colt has matured, and faulty conformation of the foot is responsible for so many causes of lameness, both in the foot, in the limb above it, and also in opposite limbs, that it at once becomes apparent to the ordinary observer that an important factor in locomotion is a well-conformed foot.

The colt's foot when left to itself shows peculiar tendencies to grow in different directions according to the way the weight of the body is brought to bear on the part of the foot covering the ground surface. As an example: If two colts are turned loose in a pasture field, and six months later, if the feet have received no attention, it may be found that one colt's feet may be very long at the toe, giving the horn a slant and curve at the heel, which in after-life will surely, when shod, produce sore or tender heels, and, finally, disease of the ala or retrossal processes of the os pedis—a condition that more frequently occurs than is commonly believed, far more frequently than the old and almost worn-out diagnosis of navicular disease, which used to be the invariable diagnosis by exclusion; whenever the veterinarian failed to discover any other cause for lameness, it used to be navicular disease, but it pleases me to note that the fashion is dying out. Numerous other conditions arise from this malformation by the long heel and long toe. Very often the ankles are compelled to bear too much strain, as will be observed when viewed from either a physical or mechanical standpoint, as exists in the condition cited, and we all know how frequently ringbones arise in colts from the same existing condition in the foot, and all can be obviated by the use of an ordinary rasp in the hands of an intelligent caretaker by keeping the toes short and distributing the weight evenly over the foot, while in after-life, with proper shoeing, the foot is likely to grow in the directions and at the angles it has been induced to grow in early life.

In the other colt the opposite condition may be seen, and that is for the toe to become worn and broken off and the heel to grow disproportionately high and steep, which also has its bad effects on the foot in after-life. If the horn grows too perpendicular there becomes an uneven pressure on the os pedis and surrounding tissues, and the natural angles of the phalanges are destroyed, and consequent imperfect articulation ensues. This is a frequent source of lameness, as evidenced by periostitis of bones adjacent to articulations. All this can be obviated by maintaining the proper angles by the use of rasp on ground surface of foot, producing the tendency to grow a normal shaped foot.

When the time comes for our colts to be shod, more care than ever should be exercised. My views are in on way radical or original on this point, as they are largely an endorsement of the views set forth by others who long claim to be authority on this subject. One point I want to emphasize as important, and that is that the shoes be light and never thick at the heels; at least, the dressing of the foot and fittings of the shoe should be such as to allow the frog to come in contact with the ground all the time, as the colt's foot is sure to suffer as soon as the frog is removed from the ground.

One of the most important faculties for us to cultivate is true sight, and by constant application with the use of calipers and rule we will in time attain that proficiency in this one thing that will be of great use and assist us in diagnosing lameness. Most of us could recall the amusing incidents of our errors in discovering the source of lameness. Take, for instance, many road horses; just the slightest bruise on the metacarpal bones will produce periostitis and consequent lameness, and all traceable to an uneven foot, destroying the natural perpendicular or straight line of the limb during locomotion, bringing the leg in the way of the foot, not the foot in the way of the leg, as when one foot is perfectly level and the other uneven it is the leg resting on the uneven foot that is injured, showing that it got in the way of the foot being moved in its natural straight way. Ask for proof. Shoe the foot level, the offence stops, and lameness—if injury is not too severe—soon passes away.

We have rambled on beyond the shoeing of a colt's feet, and come to the time when he goes to work, gets fed strong and driven hard, and there is every tendency to produce congestion of blood vessels of the foot from so many causes. Our great object is to obviate or minimize the several factors that predispose the foot to become congested, and here, again, I say maintain your frog pressure, and when that bears its due share of weight and concussion brought to bear while in motion, either rapid or slow, the other parts will not be compelled to bear an undue portion of weight and concussion. Here, when the frog is not sufficiently developed, the well-adjusted bar-shoe is of inestimable benefit.

I dare say that most of us have noticed that when the grain was taken from a horse and he was turned to pasture the feet lose brittleness and grow tough and strong. This is not due entirely to the moisture obtained from the wet grass and damp ground, but is partially due to the healthy condition of the stomach and absence of inflammation in the feet.

To go into all the causes would take too long, for the subject is an inexhaustible one, but heredity

must not be overlooked. Heredity influences the general conformation, strength, size, and vascularity. The old adage that "like begets like" is very true in this case. So it is not surprising to see the offspring of a sire or dam who has bad feet showing a predisposition to the same condition. Nevertheless, I think it wrong to look on hereditary influences as inevitable. Take the young offspring and employ every means to obviate and overcome the tendency to follow in its parents' footsteps. I think the expression applicable here. The result will be a strong and comparatively healthy foot, and the offspring of that animal will probably be much improved, in comparison to its foreparents, showing that heredity even in this can be successfully combated if proper means are employed.

Of the artificial appliances, we all know many to be beneficial, but there is one of the latest that I deprecate the necessity for using, and that is pads on soles and frog. I have failed to find where they have been used any length of time that they have not produced a dry rot of sole and frog, and in most cases the frog never regains its previous healthy state. Asphalt pavements seem to render this inevitable in some cities. Aside from this, it is doubtful if they are ever of any permanent benefit. The use of hoof ointment, I think, is a dirty humbug. Water properly applied is of more permanent benefit than any other application that I have been lucky enough to meet with.—*Journal of Veterinary Archives.*

GARDEN AND ORCHARD.

The New Fruit Inspection Bill.

After long and careful consideration by fruit-growers, by the Dominion Minister of Agriculture, members of the House of Commons, and the Canadian Senate, an Act to provide for the marking and inspection of packages containing fruit for sale has been passed, and goes into operation on July 1st. In the Act, the expression "closed package" means a box or barrel the contents of which cannot be seen or inspected when closed, and the expression "fruit" does not include wild fruit. It is enacted that: "Every person who, by himself or through the agency of another person, packs fruit in a closed package, intended for sale, shall cause the package to be marked in a plain and indelible manner, before it is taken from the premises where it is packed; (a) with the initials of the Christian names, and the full surname and address of the packer; (b) with the name of the variety or varieties; and (c) with a designation of the grade of the fruit." Provision is made for two brands or markings: "A No. 1 Canadian Fruit" and "No. 1 Canadian Fruit." For the former the fruit must consist of well-grown specimens of one variety, sound, of nearly uniform size, of good color for the variety, of normal shape, and not less than ninety per cent. free from scab, worm holes, bruises and other defects, and properly packed. For "No. 1 Canadian," the fruit must consist of specimens of one variety, sound, of fairly uniform size, and not less than eighty per cent. free from scab, worm holes, bruises and other defects, and properly packed. Persons are prohibited from having in their possession, selling or offering for sale closed packages of fruit with marks representing it to be of the "finest," "best," or "extra good quality," unless such fruit consist of well-grown specimens of one variety, sound, of nearly uniform size, of good color for the variety, of normal shape, and not less than ninety per cent. free from scab, worm holes, bruises and other defects, and properly packed. It is enacted to be fraudulent packing when more than fifteen per cent. of the fruit is substantially smaller in size than, or inferior in grade to, or different in variety from, the faced or shown surface of such package.

The penalty for violating this Act is a fine not exceeding \$1 and not less than 25 cents for each package, or, in default, imprisonment not exceeding one month. When the Inspector detects such packages, he is to brand them "falsely marked," in a plain, indelible manner, and the penalty for altering or obliterating his marks is a \$40 fine. The person on whose behalf the fruit is packed or sold is held to be liable *prima facie*. Any person obstructing an Inspector carrying out the provisions of this Act shall be liable to a penalty not exceeding \$500, and not less than \$25, with costs, and, in default, not exceeding six months, with hard labor. Half the fine goes to the informant and half to the King. The Governor-General is empowered to make regulations for the enforcement of the Act. By the amended General Inspection Act, provision is made authorizing the appointment of Inspectors and deputies, to be paid by salary or fees, for various articles, including apples. According to a third Bill passed, respecting the packing and sale of certain commodities, apples packed in Canada for export must be in well-seasoned barrels, not less than 26 1/2 inches inside measure between the heads, a head diameter of 17 inches and a middle diameter of 18 1/2 inches, representing as nearly as possible 96 quarts. For apples, pears or quinces sold by the barrel, the dimensions must not be less than those specified. For violating this provision there is a penalty of 25 cents per barrel.

In respect to certain other points, it is provided that every box of berries or currants offered for sale, and every berry box manufactured and offered for sale, in Canada, shall be plainly marked on the side of the box, in black letters at least half an inch square, with the word "short," unless it contains when level full as nearly exactly as practicable:

(a) at least four-fifths of a quart, or (b) two-fifths of a quart.

Every basket of fruit offered for sale in Canada, unless stamped on the side plainly in black letters at least three-quarters of an inch deep and wide, with the word "quart" in full, preceded with the minimum number of quarts (omitting fractions) which the basket will hold when level full, shall contain, when level full, one or other of the following quantities: (a) fifteen quarts or more; (b) eleven quarts, and be five and three-quarter inches deep, perpendicularly, inside measurements, as nearly exactly as practicable; (c) six and two-third quarts, and be four and five-eighths inches deep, perpendicularly, inside measurement, as nearly exactly as practicable; or (d) two and two-fifths quarts, as nearly exactly as practicable.

The usefulness of the foregoing measures will depend very largely upon the efficiency of the Inspectors who are appointed to enforce them.

Orchard Meetings a Great Success.

BY G. C. CREELMAN, SUPT. OF FARMERS' INSTITUTES.

As was anticipated, the meetings held in the orchards throughout Ontario are being well attended. No new movement in connection with the Institutes has taken so well, unless it be the poultry demonstrations held at the winter meetings.

IN HALTON.

As has already been reported, the meeting held at Mr. Peart's place, at Burlington, was, notwithstanding the weather, a most successful one. Two hundred people were present, and everyone carried away practical ideas in reference to the best varieties of large and small fruits; the best methods of cultivation; how to prune, graft, and how to pack fruit for market.

AT ST. CATHARINES.

The next week the Lincoln County Farmers' Institute assembled in the orchard of Mr. Thos. Archibald, St. Catharines, and besides general discussion and practical demonstrations of the best methods of caring for an orchard, Prof. Lochhead, of the Ontario Agricultural College, gave an interesting address on "Fungous Diseases of Fruit and Fruit Trees." Mr. Robert Thompson, an officer of the Institute, writes of this meeting:

"As a rule, we can seldom get a quorum at our annual meeting. This year we had ninety in attendance, and they were all wide-awake, too. Prof. Lochhead had questions fired at him from all directions, and he proved to be in every case equal to the occasion. In matters pertaining to insects and fungous diseases we have never seen his equal."

AT AGINCOURT, IN EAST YORK.

The East York Farmers' Institute is, in some respects, ahead of any other Institute in the Province. It is the only Institute that holds regular meetings every two weeks during the winter and spring. Their own local men are appointed to open some timely subject, and then the neighbors take a hand and thresh it out. They have also a Seed Fair each spring, and at this meeting the different varieties of grain are brought in and prizes offered for the cleanest and purest samples. The members of the Institute then arrange to exchange seed, or if they have none to exchange, arrange to buy what they need for the season. And now this progressive Institute has started outdoor meetings, and the one held in Agincourt on June 4th was a model of its kind. Three hundred members were present, and the Secretary assures me that Prof. Hutt was bombarded with questions the entire afternoon, and that all returned home much pleased with the venture and quite determined that they would repeat the experiment again next year.

AT CRAIGHURST, IN SIMCOE COUNTY.

There is probably no better authority on fruit for Simcoe County and the Georgian Bay District than Mr. G. C. Caston, Director of the Experimental Fruit Station at Craighurst, twelve miles north of Barrie. The land is very light, hence can be cultivated immediately after the heaviest rains. He has all the leading varieties of plums, apples and cherries, blackberries, currants and strawberries.

Mr. Caston personally conducted the meeting, and the two hundred farmers present followed from orchard to orchard while the Director pointed out the peculiarity of the different varieties, how to graft, spray and care for an orchard. A spirited discussion was kept up for over two hours, as questions were asked and answered on matters pertaining to fruit.

WORTH MILLIONS TO ONTARIO.

At this Fruit Station two points have been thoroughly demonstrated that might, if heeded, save millions of dollars to the fruit-growers of Ontario. The first is the use of the Tallman Sweet stocks for all hardy varieties of fall and winter apples. Mr. Caston has top-grafted on this hardy stock, Greenings, Northern Spies, Ben Davis and Kings, and has found nearly all of them to make an almost perfect union, and a vigorous, healthy tree. The advantage of this method over growing Spies on their own stocks is: first, they come into bearing earlier, and second, they are not so liable to break down under heavy loads or split apart when covered with snow and ice.

IRRESPONSIBLE AGENTS.

The second point demonstrated is the wisdom of placing an experiment station in the district. The Director has grown most of the varieties that are offered for sale by fruit-tree agents in that district.

Some of these, which the agents have represented as being hardy and quite suited to our climate, have been found utterly useless, many of them being too tender to stand our winters, and others not producing enough fruit to pay for the cultivation. These varieties Mr. Caston has left standing, properly labelled, as an object lesson to the neighbors for twenty miles around, and the people of South and Center Simcoe now write the Director each year, before ordering their trees, for advice as to the best varieties to plant.

## QUESTIONS AND ANSWERS.

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

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

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

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

### Veterinary.

#### PARALYSIS OF FORE EXTREMITIES IN CALF.

A calf, ten days old, became affected in a peculiar manner. It was apparently all right when fed in the morning, but on going to feed it in the evening its front legs were completely powerless. It could raise up on hind legs and move around with breast and nose on the floor. The front legs were quite limber, and it had no power even to draw them in or to stretch them out. In this condition we let it remain for six days, when we knocked it on the head. Its appetite all these days was as good as usual; digestion, etc., all right, and it seemingly suffered no pain. It had no swelling in any part whatever, the eyes bright, its breathing regular, only it was getting weaker every day. The affected limbs were cold. I used liniment and fed it different things in the milk. We never had the like in our stables before. What was the trouble, the cause, and remedy, as more of our calves might be affected in the same way? D. R. Bruce Co., Ont.

[The paralysis of the fore limbs in the calf was due to an affection of the brain, in all probability a tumor or abscess pressing upon it. Cases of this kind occasionally occur. They cannot be prevented, neither can they be successfully treated.]

J. H. REED, V. S.]

#### INFLAMED UDDER IN COW—WIRE HOOPS FOR SILO—BREED OF COWS TO SUPPLY CITY MILK.

1. I have a Jersey cow, 8 years old, whose udder is swollen and hard in one quarter. She gives thick milk, but not bloody. The milk from the other teats is normal. She has been calved about three months. She had one with the same trouble last year, and she lost one teat.

2. Would cable wire do for silo hoops? Are they used? If so, how many strands of wire and how many bands for a 24-foot silo (12x24)? Would hemlock do for a circular silo, and what width should the planks be?

3. The farmers of this township are largely engaged in supplying milk to the Toronto dairies. The common or Shorthorn grade constitute the majority of the herds. Would the Holstein or Ayrshire give better results? Would the milk of the Holstein be rich enough to satisfy the Toronto standard? If desiring to establish a pure-bred herd for this purpose, what breed would you advise me to choose? SUBSCRIBER.

York Co., Ont.

[I. See answer to Joseph Pearn's question in last issue re "Maladdress and Udder Trouble."]

2. Fence wire has been recommended for binding stave silos together by winding it around and around, from bottom to top, a few inches apart, getting wider apart towards the top. We do not believe, however, that this sort of binding can be satisfactory, because of the difficulty of drawing and holding the wire perfectly tight and in re-tightening the wire after the first filling. If any readers have had success with this sort of bands we would be pleased to learn from them how the difficulties we have mentioned were overcome. Hemlock plank is frequently used for silo construction, but is not so satisfactory as pine because of his aptness to check and warp. The planks should not be less than 8 nor more than 10 inches wide.

3. It is true that the Holstein is blamed for giving milk low in fat, but it is also a fact that there are many high-testing cows in this breed, and are spoken of as butter-bred cows. The Ayrshire as a breed is a good dairy cow, but for a first-class high-producing herd, careful selection is necessary. In fact, this is true with any breed, and even a grade herd may be built to be high producers by selection and the use of pure-bred bulls bred for rich production. It is impossible to say which breed should be chosen, as much depends upon the tastes of the owner. It is well in any case to commence with a first-class bull and a few high-producing females of the chosen breed, and then gradually improve the grade herd while getting into the pure-breds. In case the herd did not give milk that would pass the market standard, the introduction of one or more Jerseys, and mixing their milk with the rest, would give quality to the lot. Success with any breed depends more on the management than on the breed.]

#### RINGBONES ON ALL-FOURS.

I have a driving horse which is ringboned on all-fours. He has been like this for about two years. He is stiff on the front legs when he comes out of the stable, but he seems to be all right when he gets out for a little while, only he limps a little. What can be done for him? Will he get worse if let go without doctoring? Can he be cured so as not to be lame, and without leaving the marks? If so, how should he be treated? He will not have much to do but a little driving this summer, and can be spared from that if necessary. A SUBSCRIBER. Grey Co., Ont.

[The probability of the lameness increasing if no treatment is given depends somewhat on the seat of the ringbones. If low down, they will surely become worse; if high up on the pastern, the lameness may not increase to any great extent. The only satisfactory treatment is the use of the firing iron, followed by blistering by a competent veterinary surgeon. This will remove the soreness, but not the enlargement, and scars are almost certain to be left.]

#### OCCULT SPAVIN IN MARE.

I have a heavy Clyde mare, eight years old, that is lame on the right hind foot or leg. Three years this spring I saw her limp first. She put the crop in that spring and took off the harvest that fall. She has done nothing much since. She had a foal a year ago and is heavy in foal again. When she walks you could not tell she was lame. I have had her to two or three veterinarians and they could not tell what was wrong. She is no better when she is doing nothing than when she is working. If she is worked hard for a week or two she will limp a little for about a dozen steps when brought out of the stable first. If you know what is the trouble, please send a cure through the FARMER'S ADVOCATE. Lanark Co., Ont. J. M.

[In my opinion your mare is lame from occult, or blind, spavin, one which does not show any enlargement, but in which the true hock joint is involved. Cases of this kind are hard to cure, but benefit, and frequently a cure, results from firing and blistering, which should be done by a veterinarian. A good test for spavin lameness is to get an assistant to hold the horse; then you take up the hind foot and forcibly flex the hock. As soon as you release the animal, the assistant must walk her off. If spavin exist, she will usually walk lame for a step or two. J. H. REED, V. S.]

#### BRAIN TROUBLE IN HORSE.

I have a horse that shakes his head nearly all the time. He would make you think by his actions that the flies were bothering his nose, and sometimes he makes motions with his front feet as if a bot fly had stung him under the chops. He eats and drinks well, and is in good condition. He has had distemper twice this winter; has a cough yet. I worked him all spring. His feed has been a common six-quart pan of ground oats, barley and buckwheat three times per day, and a pan of potatoes at night, after work; also a good forkful of hay three times daily. About two weeks ago I changed his feed to whole oats. Last Monday I turned him out to grass. He seems no better. The white around his eyes is very red. He has been in this condition about six or eight weeks. Leeds Co., Ont. H. M. J.

[Your horse's brain is affected. It may be simply congestion of some of the vessels, or it may be pressure caused by a growth. If the former, a cure may result; if the latter, he will not get better, although the symptoms may not become serious. I would advise you to give him a smart purgative of, say, eight drams Barbadoes aloes, two drams ginger, either as a ball or shaken up in a pint of cold water and given as a drench. Allow him to run at grass after purgation ceases, and let him have a few weeks' rest if possible. For affections of this kind little good is derived from treatment other than that prescribed. J. H. REED, V. S.]

#### WEAK FOAL.

My mare's foal was weak and could not stand alone, but would suck when lifted up. I cut navel string about 9 in. long, but on second day it started to bleed, and died in a few hours. The mare was in good condition, but not too fat. I have another mare to foal next month. Will you kindly give me a remedy if the next foal is like this one, and would you breed to the same horse again? Victoria Co., Ont. P. H. M.

[When the navel cord of a colt is not ruptured, a strong, coarse string should be tied tightly around it, about an inch from the abdomen, and the cord cut about an inch below the string. The string is left on until it sloughs off. The parts should be dressed 4 or 5 times daily with 1 part corrosive sublimate to 1,000 parts water. It is good practice to dress the parts with this solution in all cases until the opening heals, as it prevents joint ill. If colt be too weak to stand, it must be helped and held up to nurse every hour or two until it gains strength. See that the meconium (the contents of the bowels when born) is passed. Do not give purgatives, but give injections of warm water with a little soap, and insert your (well oiled) finger and remove what you can. As soon as the faces passed are yellow in color, you will know that the meconium has all been passed. If the foal does not gain strength after nursing a few times, it will require a great deal of attention both day and night. J. H. REED, V. S.]

#### CHRONIC COUGH.

What should I do for my horse? He has had a cough for about seven months, and it appears to be just from the throat. When working for a while he coughs a lot. The cough is a dry one. Strathcona, Alta. SUBSCRIBER.

[We would advise you, not knowing the history of the case, to get the following made up at a drug store: Muriate of ammonia, two ounces; chlorate of potash, two ounces; fluid extract of belladonna, one ounce; molasses sufficient to make one pint. Give one tablespoonful, placed on the tongue, twice a day. It might be beneficial to stimulate the throat with a liniment such as turpentine and ammonia, two ounces; raw linseed oil, four ounces; mix and apply externally to the throat with the hand once daily. Stop when signs of blistering are seen, and anoint the parts with clean, sweet lard.]

#### SCROTAL HERNIA IN FOAL.

I have a colt, two weeks old, with badly swollen testicles. The morning he was foaled he got a box between his legs, and I think it was nothing else that hurt him. He doesn't walk lame or show any soreness. Please prescribe, and oblige. Alberta, N.-W. T. W. PENNY.

[Your foal has scrotal hernia (rupture), which is not infrequent. Unless the hernia be very large and interfering with the animal's action, or is gradually becoming larger, leave it alone and nature will gradually effect a cure by a natural shortening of the omentum which draws the intestine up into the pelvic cavity. If the rupture be very large or gradually increasing in size, it will require an operation, which can be successfully performed only by an expert, as it consists in casting the animal, cutting down on the intestines, returning them through the inguinal canal into the pelvic cavity, and stitching the inguinal ring and scrotum. J. H. REED, V. S.]

#### SWOLLEN LEGS IN HORSE.

Subscriber wishes to know what is the cause of a young horse, five years old, being swollen in the hind legs? He is a heavy horse, would weigh about 1,300 lbs. The legs have broken out and are running; it started like scratches first. I feed hay and six quarts of oats at a feed, working every day, farming. What shall I do with them? Is there any cure? I wash with castile soap and lukewarm water, and I apply Egyptian liniment. Please let me know as soon as possible. I have taken the ADVOCATE nearly four years and like it well. Muskoka District, Ont. S. B.

[Cases of this sort that are of long standing are difficult to deal with effectively. Feed nothing but a little bran for twelve hours, then administer a purgative of ten drams of Barbadoes aloes, two drams of ginger, mixed with soap or treacle and made into a ball. Allow nothing to eat but a little bran and give water in small quantities until purgation commences (generally about twenty-four hours), then feed grass and bran. When purgation ceases, give one of the following powders every night in damp food: Soda bicarbonate, 6 ozs.; powdered nitrate of potassium, 3 ozs.; powdered resin, 3 ozs.; arsenious acid, 4 drams; mix and make into twenty-four powders. It is a mistake to wash the legs; in fact, they should be kept dry, but clean. Dress the raw surfaces with butter of antimony, applied with a feather, once daily for four days. Then poultice with ground linseed five parts, powdered charcoal one part, continuously for three days, and then apply the following lotion three times daily: Sulphate of zinc and acetate of lead, of each 1 oz.; carbolic acid, 2 drams, and water, 1 pint.]

#### SKIN DISEASE IN CATTLE.

My calves and yearlings, during the past winter, have been troubled with two varieties of skin disease. 1st. The hair came off around the eyes, nose and ears, and scabs formed and spread more or less. The surface of scab was rough like a grater. In descriptions of ringworm, the hair is said to come out in circles, but this came off in irregular blotches.

2nd. The hair came off them also along the backbone, but here the skin seemed to dry up and come off in scales. The cattle had good feed (turnips and hay) and warm stable, with exercise every day. Annapolis Co., N. S. R. J. M.

[The first trouble mentioned is undoubtedly ringworm, although the hair does not fall out just as is described in the descriptions you have read. It is due to a vegetable parasite, and is very contagious. Treatment consists in removing the scales by washing with soap and warm water, and then applying a dressing to kill the parasite. Dressings do no good until the scales are removed, as the parasites are under the scales, and thereby escape. A very effectual dressing is composed of one part white hellebore mixed with six or eight parts vaseline. Tincture of iodine also acts well. Apply twice daily. If you use the ointment, rub it on with your fingers; if the iodine, apply with a feather.

The second trouble is probably a form of eczema, or possibly an extension of the first. Rub the following ointment well into the parts twice daily: one part carbolic acid to sixty parts vaseline. Keep the animals on grass and no internal medicines will be necessary. Keep affected animals away from healthy, and disinfect the stalls in which they stood, or you will probably have a recurrence next year. A thorough washing with one part crude carbolic acid to one hundred parts water will do as a disinfectant. J. H. REED, V. S.]



**LOSS OF POWER IN HOGS.**

Please answer, through the *ADVOCATE*, what causes hogs to get weak in the feet so their hoofs spread apart and become useless. Give cure for same.

F. K. MARSTON.

York Co., N. B.

[It would have proved a very great help to us in answering this question to have known the age of the pigs, and how they have been housed, fed and cared for. The trouble would seem to be a mild form of paralysis, due to digestion troubles. This is generally caused by too concentrated food, too much confinement, and the like. For treatment, see Dr. J. H. Reed's reply to Thos. Conway re Partial Paralysis in Pigs in this issue.]

**PARTIAL PARALYSIS IN PIGS.**

Will you kindly let me know what is the trouble with my pigs? They are about thirteen weeks old. After weaning, they were fed middlings and milk until about two weeks ago, when I have fed boiled potatoes with milk and oat and barley meal ground very fine. They have the run of a small yard. Their backs seem to cave in at times, and they go down on their bellies to the ground, their front legs bending under them. They do it when they are walking, every step or two.

Oxford Co., Ont.

THOMAS CONWAY.

[Your pigs are suffering from partial paralysis, caused by digestive derangement. Give them sufficient Epsom salts, common salt or raw linseed oil in their food to cause a free action of the bowels. Turn them out where they will get plenty of exercise and grass, and the symptoms will soon disappear. Diseases causing various symptoms in young pigs are caused by faulty digestion, which is usually produced by want of exercise and green food. Where conditions of this kind are unavoidable, trouble can usually be prevented by feeding a few roots or something to take the place of grass, and feeding regularly enough of the following mixture to keep the bowels acting freely: equal parts of sulphur, Epsom salts and powdered charcoal.]

J. H. REED, V. S.]

**WORMS IN SOW.**

I have a sow, in good condition, with pigs about ten days old. Recently she passed two large worms. One measured 11 inches in length, about 3-16 of an inch through at middle, and tapering to a point at each end. The color almost too light to be called pink. The sow still looks quite heavy, appears to be well, and has great appetite. What can I give her that will clear out the worms without danger of injuring the animal?

2. What are black teeth in little pigs? Do they harm the pigs?

J. H. DEEKS.

Monck Co., Ont.

[At the end of 12 to 16 hours' fast, give the sow a tablespoonful of spirits of turpentine in two quarts of milk. Six hours later commence to feed her regularly with slops, putting into each pail of slop a tablespoonful of turpentine, and once a day add about a pint of hardwood ashes. Also occasionally throw into her pen a shovelful of charcoal. Some hog raisers consider that pigs are more liable to have worms when fed largely on shorts.]

2. Black teeth are small sharp teeth, black or dark brown in color, found in the sides of the mouths of pigs when born. They continue growing for some time, and drop out of their own accord. They frequently grow in such a manner as to cut the tongue so that they cannot eat, and starvation and blood-poisoning results. Some hog-raisers make a practice of examining all newly-born litters, and when these teeth appear they are pulled out or broken off with a pair of pincers. This we believe to be safe and good practice, as nothing but benefit can arise from the operation.]

**FOUNDERED PIGS.**

Last March I purchased nine three-months-old Tamworth pigs. Kept them in a roomy pen for about three weeks, and fed about 9 lbs. chop composed of 1 part each of peas, barley, oats and shorts, twice a day, or 2 lbs. to each hog per day. They also got slop, roots, and charcoal. I noticed a number of them becoming stiff or apparently foundered, so I let them out, and they have been out ever since, on red clover pasture, and are also getting the aforesaid amount of chop, slop, and charcoal. Some of them have got stiff from time to time since letting them out, and by cutting off the feed they seem to get better slowly. What I cannot understand is how pigs fed and handled as they were would become foundered, as we have fed the Berkshires twice as heavy without any ill results. I have been told that there is another disease in which the symptoms are similar to founder, and would like to know if it is so? The pigs have always been thin, even for Tamworths, and are large enough to finish; but I am afraid to feed heavy for fear of bringing back the disease. What do you think ails the pigs, and how would you advise us to proceed to finish them for market? Would you advise me to keep the best pig in this litter for a brood sow, or would her pigs be liable to the above disease?

F. L.

Simcoe Co.

[It does seem strange that pigs built on the lines of the breed named should be knocked off their pins with such reasonable feeding, and we can only account for it on the supposition that some of them have been more greedy than others and have eaten more than their share, thus impairing their digestion and heating their blood unduly. Such changes in their food as will tend to keep the bowels loose and cool their blood should bring them round in a little time. A little Epsom salts

in their food will help. For this purpose the clover pasture and exercise, together with warmer weather, should be effective, but we would delay the heavier feeding for finishing until the pigs have fully recovered from the ailment. We would not fear to retain the best of the litter for breeding purposes, as the trouble is probably only temporary and from local causes.]

**Miscellaneous.**

**NURSERY STOCK - GRAFTING CLOTH, ETC.**

1. Will you kindly inform me, through your valuable paper, were I can get peach, plum and cherry stones, also apple and pear, or any kind of pips suitable to start a nursery?
2. Where can wild yearling stock for grafting and budding be got?
3. Is it necessary to crack cherry stones before planting?
4. Where are the machines made for cracking peach and plum stones?
5. Where are the drills for drilling seeds, that are drawn by horse, manufactured?
6. What is the usual size of wild stock that is budded and grafted?
7. How is the cloth prepared used for wrapping grafts with?
8. Would it be advisable to get seeds from canning factory?

W. J. C.

Halton Co., Ont.

[I have attempted to answer the questions to the best of my ability, and believe any of the dealers mentioned are honest and responsible. The gentleman seeking the information should be more experienced in the work than his questions warrant before he invests a great amount of money in the nursery business, unless he intends hiring good reliable assistants that have had considerable experience. There is money and pleasure in the nursery business if a man understands the work and carries it on properly.]

1. Of late, nurserymen in this country do not start plum and cherry stock from "stones," nor apples and pears from seeds; at least, the extensive nurserymen do not. Our climate is not suitable for such a process. The summer or growing season is too short. Peaches ONLY are grown from "stones," for nursery purposes. Of course, in order to originate new varieties, we must resort to seeds, but I understand that general nursery work is meant. As a rule, the large growers of nursery stock import peach pits from the United States. They are handled in immense quantities by some dealers in the South. The inquirer could purchase pits from the following: Marble City Nursery Co., A. A. & M. E. Newson, props., Knoxville, Tenn., U. S. A.; J. H. H. Boyd, Gage, Sequatchie Co., Tenn., U. S. A. Of course these pits have to be procured in the fall, buried over winter, taken out the following spring and cracked. This process softens the shells, and a large percentage will turn out already cracked.]

2. The most of this stock is imported from Europe. Among other extensive growers of such stock, the following are honest and responsible: Louis Leroy, Angers, France. Stock from this gentleman can be ordered through Aug. Rhotert, 26 Barclay street, New York, or direct. Pierre Sebire, Ussy, Calvados, France. An American dealer is D. S. Lake (Shenandoah Nursery), Shenandoah, Iowa.]

3. Of course it would be, but as has been stated before, cherries are not started from stones here, but are budded onto seedling stock that has been imported.]

4. These crackers are manufactured in the United States, and could be purchased of Irving Rouse (Nurseryman), Rochester, N. Y.]

5. This question is not exactly clear. If the inquirer has reference to an ordinary seed drill, he can get one from many of the agricultural implement manufacturers. If he means a drill for sowing the seed of peach, cherry, plum, etc., I have never seen one. Peach seed is always dropped by hand in this section. Probably he could get information about such a drill from some of the large American seed dealers, such as Peter Henderson, of New York. However, peach seed, to be planted evenly, should be dropped.]

6. Something like a quarter of an inch through, some a little smaller and some a little larger.]

7. The cotton is cut in long strips from four to six inches wide. The grafting wax is melted in a large receptacle, and kept warm enough to remain in a liquid state. The cotton strips are then drawn through this liquid wax, and then passed through or between tight rollers. An old clothes wringer is a splendid thing for this work. By doing this the wax is pressed evenly into and over the cotton, and also thinly. Now, all this has to be done in a place warm enough that the wax does not get hard, and that the cotton remains flexible and soft. These strips are then cut up into small pieces about a half to three quarters of an inch wide, cutting across the original strip by laying on a smooth board and using a sharp knife. It must be remembered that all this work, as well as the grafting and wrapping, has to be done in a warm room, about 100°.]

8. There is always danger of getting peach seed infested with "yellows." Seed from the South is guaranteed free from this disease, and it is more even in size, and being grown in a warm climate, is properly matured and ripened. The most of the extensive nurserymen secure their seeds from the South.]

The inquirer could get seeds of ornamental and forest trees of A. LeCocq & Co., Darmstadt, Germany; J. M. Helms' Sons, Grossstanz, Germany. Wentworth Co., Ont. JOHN B. PETTIT.]

**SWEET CLOVER (*Melilotus*).**

I enclose plant which has come up in lucerne sown a year ago. Will you please tell me, in your next issue, what it is, and if it is a bad weed, as I thought it might be sweet clover?

X. Y. Z.

Lambton Co., Ont.

[The plant in question is melilot (*Melilotus*)—sweet clover. It is a very strong-growing plant, reaching four to six feet high, and is very tough in the stems. It is useless for fodder, as stock refuse to eat it. It is recommended as a valuable crop for green manuring, and is not difficult to destroy by cultivation.]

**BEDDING REQUIRED FOR FEEDING CATTLE LOOSE.**

I should feel greatly obliged if some who have experience in feeding cattle in loose stalls could give me some information as to the quantity of bedding required. I am about to rebuild my stable, and am thinking of having pens to hold about six cattle each. I am told that unless an enormous quantity of straw is used it is impossible to keep the animals clean. If this is so, I shall have to return to the old method.

F. RANSOM.

Wentworth Co.

[We have interviewed many persons who have wintered cattle loose in box stalls, and we believe from one fifth to one quarter more straw is needed than with tied cattle to keep them equally clean. Some feeders use no more for their loose cattle, head for head, than for tied ones, but, as a rule, they are somewhat dirty before spring, which, after all, may not be a serious objection, provided the animals are comfortable and the pen well ventilated. We will be glad, however, to hear from readers who have tried both plans regarding this question.]

**FARM WATER SUPPLY.**

I want an increased supply of water at both house and barn, which are about 180 feet apart. How can I get one good well in such a position as will suitably supply both? Can the well be put near enough to the barn so that I can pump water with windmill on barn, which could then be used for other power, and have the water supplied to the house nice and fresh, or would I have to have the well at the house and pump the water to the barn? By letting me know the most economical and convenient way of supplying both house and barn from the same well you will greatly oblige.

A CONSTANT READER.

[We understand that "Constant Reader" wants a power mill on his barn. This being so, put down the well outside, but as convenient to the barn as possible, at a point sufficiently raised so that there will be no surface drainage into it from the yard. If more than 25 feet deep, you will require to use jerk-rod or wire to pump, but if under that depth, the water can be forced up direct into elevated tank over well. Erect first a round wooden tank about 6x6 feet; then place in the center of it and resting on the bottom a galvanized steel tank 18 inches in diameter and 6 feet high. The water must be pumped up into the steel tank, and by having it one or two inches higher than the wooden tank, the water overflows into the latter. Pipe from the small tank to the house. To complete the job put good roof, with tar paper under shingles, over the tank, to exclude heat. Some surround them with boards as well. If you do not want a power mill on barn, dig the well near house, and with pumping mill raise the water through a small elevated tank in the house (drawing off water with tap for domestic use), and from thence by gravity to barn, emptying into a round outside drinking tank 10 feet across and 3 feet deep. If tank in house be high enough, you can carry the water into troughs before your stock in the stable.]

**FALSE FLAX (*Camelina sativa*).**

Enclosed you will find a sample of weed which is getting into our meadows around here, which, I think, is a bad weed. I think it came in the grass seed. Some say it is wild flax. I would like to hear your opinion on it?

PHILLIPS BROS.

Middlesex Co., Ont.

[In our July 2nd, 1900, issue we published a good illustration of this plant (false flax) along with a description of it. It grows from 18 to 20 inches high, is much branched, and closely resembles shepherd's-purse. The blossoms are small and of a pale yellow color, and are borne on the tops of the branches. After the blossoms are past, the upper portion of the plant consists mainly of stems and seedpods. These pods are pear-shaped, about the size of plump wheat grains, and having a small-pointed projection from the upper end. The seeds are numerous, brown, and about the same size as timothy seed. It flowers during May, June, and July, and commences to seed in June. It grows in all sorts of soil and infests winter wheat, rye meadows and pasture. Infested fields should be shallowly gang-plowed and harrowed immediately after harvest, and as soon as the seeds begin to sprout, cultivate; repeat the cultivation and rib up the land the last thing in the fall. Put in a hoed crop the following spring and cultivate it thoroughly throughout the growing season. Two or three spring-grain crops should be grown on the land before seeding down, and great care should be given to the fall cultivation, and the soil should be cultivated and harrowed in the spring before sowing. It may be wise to grow another hoed crop before seeding down to meadow. The objects should be to avoid growing crops that the weed infests, to avoid allowing plants to go to seed, to induce germination of the seeds in the soil as far as possible, and to destroy the plants while young.]

## SKUNK FARMING.

If you can furnish me any information on skunk-raising, or tell where it might be had, I would like it. Have a friend starting in that business.

SABLE.

[We are led to believe that skunk-farming is carried on for the fur of the animals, that has a high commercial value. We cannot, however, furnish any information regarding the unsavory business, but will give space to any who wish to discuss it.]

## PAGE WIRE FENCING FOR HOOPING SILO.

As I intend building a silo, I would like to ask, through your paper, how "Page wire" would do around the outside of silo, instead of iron rods? If so, how could it be fastened on best to keep it tight?

Wm. J. JOHNSTON, JR.

[While we cannot speak from experience regarding the suitability of coil spring wire fencing for binding a round stave silo together, we incline to the opinion that it can hardly be depended upon for this purpose, because of outward pressure of the silage while settling, which would cause the fencing material to give sufficiently to open the cracks. Perhaps this could be overcome in some way, and we leave it for ingenious readers to work out.]

## FRENCH STALLION AND SHETLAND PONY WANTED.

I am very anxious to know where I can find a first-class French stallion (pure black preferred), and Shetland ponies also. I wish to breed to French stallion, and a few of my neighbors would breed also. I wish also to find some one who raises Shetland ponies, so that I might get one to drive.

Wm. KENNEDY.

[Possibly it is a Percheron stallion that Mr. Kennedy wants, or it may be a French Coach or French trotter. There should be a good trade done with any or all of these breeds, if those who have them for sale would make it known in our advertising columns. The demand for Shetland ponies is not confined to Mr. Kennedy. Others will watch our pages and buy when they get a chance.]

## THE BEST HAY-CAPS.

Would you kindly inform me if there are hay-caps of any kind manufactured in Canada? Would oiled factory cotton answer? If so, how made; and would they keep safely piled in a heap when not in use?

W. C. W.

[Not knowing of any firm manufacturing hay-caps in Canada, we inquired of Mr. E. D. Tillson, of Oxford Co., Ont., who has used caps for years, as to the best sort to use. He writes that he has used cotton hay-caps for about twelve years, and is fully convinced that they pay him well. For several years he used oiled cotton, but now uses it just as it comes from the store, and finds it is lighter, cheaper, more durable, and keeps the hay dry through heavy rains. He gets the heaviest twilled sheeting he can buy, 2½ yards wide, and makes each cap 2½ yards square. He hems the raw edges and works a hole in each corner about 1½ inches in diameter. The cotton is made double thickness around these holes, and worked around the edges like button-holes. In order to fasten them to the hay cocks, ash or elm sticks 15 inches long and ¾ of an inch in diameter are used, sharpened at one end and having a square head at the other. Two men go round to put on the caps, drawing them down tight on the cocks and fastening them there by running the wooden pins through the holes and under the hay. They are stored dry in a dry garret, strung on wires so that mice cannot get at them.]

## SOW THISTLE ERADICATION.

Please inform me how to kill sow thistle? It is a surface plant and will grow from the smallest piece of root. The seed flies over the country like Canadian thistle.

YOUNG FARMER.

[Sow thistle (*Sonchus arvensis*) is a difficult weed to eradicate when once it gains a firm foothold, as it not only seeds in great profusion, but its rootstocks creep along beneath the surface of the ground and throw up new plants at frequent intervals. These rootstocks, too, can live and grow apart from the parent stem, and start new plants wherever they become covered with soil. The plant has an upright habit of growth, and grows from one to three feet high, or even higher in very rich soil when not crowded. It is sometimes called milk thistle, from the white juice the stems and leaves exude when wounded. The stems and leaves are hairy and bear harmless prickles. The blossoms are yellow, resembling a dandelion in form and color. In order to eradicate this weed, the seeds in the soil must be got to germinate and be killed, and the roots must be smothered out. Shallow cultivation works successfully on both and should be resorted to. The creeping rootstocks running several inches below the surface of the ground must not be disturbed. Shallow plowing and cultivation will clip off and destroy the upright stems and thus prevent seeds forming, and also cut off contact between the air above and the main rootstock below the surface. If this is done successfully for one growing season, the roots will perish. To accomplish this, thorough fall shallow cultivation should be given, followed the next season by summer-fallow or a well-cared-for hoed crop. The writer cleaned a field by fall cultivation, followed by summer-fallow, into which was plowed a heavy growth of buckwheat, and the following year the field was hoed.]

## FARM BOOKKEEPING.

I noticed your article in the FARMER'S ADVOCATE of May 15th, page 333, referring to farm bookkeeping, and was much pleased with it. I should be glad if you would give a good system of farm bookkeeping in your valuable paper, the FARMER'S ADVOCATE. When at school I never had a chance to take up bookkeeping, and since starting to farm I have tried to keep books in my own simple way, and would not think for a moment of giving it up, imperfect as it is. I should advise every farmer to keep books. I wish the FARMER'S ADVOCATE every success.

S. McCLINTON.

WORM-SEED MUSTARD (*Erysimum*).

I enclose you a specimen of weed that has come up in my meadow. I have never seen anything like it before. Is it likely to give trouble in future?

[This plant, about fourteen inches high, and having small, inconspicuous yellow flowers, is a member of the Cruciferae or mustard family. It is known to botanists as *Erysimum cheiranthoides*, and popularly known as worm-seed mustard. It frequently comes up in the late summer or fall, lives through the winter, and comes on again in spring, flowering in May and seeding in June. It is not looked upon as a bad weed. As the plants do not live more than one year, or after they have seeded, the aim should be to cultivate infested areas in fall, spring and summer, so as to prevent the plant seeding.]

REDROOT (*Lithospermum arvense*).

Will you please give me the correct name and any other information concerning the enclosed weed in the next issue of your journal? It is known here by the name "redroot."

[The specimen received is known to science as *Lithospermum arvense*, and popularly called redroot, wheat thief, gromwell, etc. It grows from 12 to 16 inches high, generally branching if standing separate from other plants. Its flowers are small and white. The leaves are bright green, rather rough; the root is of a reddish color. It is a troublesome weed, that frequently seeds in the summer, comes up in the fall, and matures the following season, most frequently infesting fall wheat and meadows. The seeds have much vitality, so that thorough methods are needed to eradicate it. Give thorough fall cultivation and summer-fallow, or grow a hoed crop the following season. It may even require two seasons of careful cultivation to clean a badly-infested field, as it is not only necessary to prevent growing plants from seeding, but all the seeds in the ground must be brought near the surface, so as to germinate and be destroyed.]

## BREACH OF WARRANTY—SALE OF HORSE.

We receive the ADVOCATE very regular, and think it a wonderful paper. This paper would be cheap at five dollars, as there is even many times this amount to be received by carefully studying all that it contains. 1. We bought a horse, fifteen years of age. Is sore on front; he seldom stands on all four feet at once. After driving some distance he becomes lame. We have had him bare-footed, also with shoes on, and he is the same. Do you call this horse sound? If not, could you tell us what the trouble is? 2. There is a man here that keeps horses for sale, and we went to him Friday, May 17th, to get a horse. Picked out one, which he said was all straight and sound, with good wind, and not a thing wrong with him, and he said that if there was anything wrong with the horse, to bring him back and he would refund the money. He also said that the horse was nine years old. It has been proven to me that he is fifteen years old, and he is in the condition I have just stated. We took him back one day last week, about Thursday, and not being able to get the man we bought him from, we brought him back. So to-night we took him back, but could not find the man yet, so we tied the horse to a wagon in the yard and came home. We paid \$25 in cash and gave a note for \$45, due in three months, so let us know exactly what to do? Huntingdon Co., Que.

[1. While the data given is rather scant on which to diagnose the case, the lameness would seem to arise from an injured muscle or tendon, rather than chronic trouble with joint. The horse would now, doubtless, be classed as unsound, though, if the cause of lameness were the former, he might have been sound when you purchased him. 2. We assume, however, that the animal was at the time you purchased him in the unsound condition described, although you do not state such to have been the case, and do not say what time elapsed before you discovered the defects complained of. And we think you were entitled to take the dealer at his word—as you did—and return the horse to him and look to him for a refund of the money paid and a delivery up of the note. Of course, the note may have got into the hands of an innocent third party for value, and in such case you would be liable to him. In any case, though, we consider that you have a right of action against the horse dealer for damages for breach of warranty. You should see him again without delay and demand return of your money and note, and if same are not promptly forthcoming, then instruct a solicitor to bring an action such as above suggested.]

GROUNDSEL (*Senecio vulgaris*)—SHEPHERD'S-PURSE (*Capsella Bursa-pastoris*).

Mr. George Nixon, a Middlesex County, Ont., farmer, left at our office a bunch each of shepherd's-purse and groundsel, two weeds that were growing luxuriantly and forming abundance of seed at the beginning of June. The former resembles sow thistle in form and color of stalk and leaves, and also has a yellow blossom resembling a dandelion. It grows about 18 inches high, flowers all summer, and produces and scatters its seeds in a manner similar to a dandelion or thistle. It differs from a sow thistle, however, in having a watery, instead of a milky, juice in the stems and leaves. It has smooth, round branches; its roots are of annual duration, woody and fibrous. It infests waste places, and is not liable to give trouble in well cultivated fields.

Shepherd's-purse is a very common weed, that comes among the first in spring, but is not considered troublesome, as it is easily crowded out. It belongs to the natural order Cruciferae, which includes mustards, cresses, etc. It grows up to two feet high in rich ground, producing heart-shaped seed-pods, on slender stems, on the upper portion of the branches. Its flowers are small and white, and the leaves long, smooth, and clasping the stem. Either of the above weeds will come up in the fall, and during the following summer produce seed and die.

## MANURING FOR POTATOES AND CORN—BEST VARIETIES OF CARROTS FOR HORSES—SPRAYING FOR MUSTARD.

1. What is the best method of applying manure to potato ground before planting, and what is the best time to plant? 2. What variety of carrots is best to grow for horses, and when should the seed be sown? 3. I plowed down a good crop of clover and timothy in my corn ground. Will it answer well to apply manure as a top dressing and cultivate it in? 4. Twelve acres of my spring grain is too badly infested with wild mustard to hand-pull. What is your judgment about spraying to destroy this weed? What machine is best to use, and what will it cost to spray twelve acres?

[1. Well-rotted manure, evenly spread on and plowed down about four or five inches, is the most popular method. Potatoes may be planted from May 12th till June 10th with good results. 2. Half-long White and Danver's Orange are good varieties of carrots for stock, as they yield well and are fairly easily harvested. They should have been sown before May 10th for a good crop. 3. Yes. 4. Copper sulphate, ten pounds (costing about eight cents per pound), dissolved in fifty gallons of water, will kill all the mustard on an acre if applied evenly by a modern sprayer before the plants are more than six inches high. As the mustard gets larger, stronger spray is necessary. If a heavy rain follows the spraying within twenty-four hours, the operation must be repeated. The Spramotor Co., London, Ont., make special machinery for this work.]

[We find the weed is a member of the mallow family, known as *Malva rotundifolia*, or round-leaved mallow. While it may be growing quite thick at present, it will not be found difficult to eradicate by such cultivation as any garden or field would require to grow good crops. It would be well to prevent, as far as possible, this year's plants forming seed, either by cultivating the ground or by spudding or hoeing off the plants beneath the surface of the ground. Give the soil good fall cultivation, and next year cultivate well in spring and grow a hoed crop, such as roots, potatoes or corn, keeping the ground clean; and in following years give good ordinary culture, such as all land growing crops should have. 2. Regarding the horse manure, we would recommend levelling and tramping each week's supply, also throwing on a few shovels of gypsum (land plaster), and a layer of black soil or loamy earth. We would also recommend pouring on water at least once a week, and oftener if found necessary. This may seem a lot of work, but horse manure by itself is very liable to fire-fang and thus become useless, and we believe the plan outlined will keep it in good condition. It should be plowed under as early in the fall as possible.]

MALLOW (*Malva rotundifolia*)—TO PRESERVE HORSE MANURE.

I have purchased a small place, and it is overrun with a weed which I call marsh mallow. I send you a small plant of it? How can I kill it? 2. I am getting manure from a stable of four horses all summer. I have to take it away every week. Which is the best way to keep it till fall? Shall I keep it level on the top, and had I better put water on it, say once a week? If it is not kept moist it will burn.

JOHN HOLBORN.

[We find the weed is a member of the mallow family, known as *Malva rotundifolia*, or round-leaved mallow. While it may be growing quite thick at present, it will not be found difficult to eradicate by such cultivation as any garden or field would require to grow good crops. It would be well to prevent, as far as possible, this year's plants forming seed, either by cultivating the ground or by spudding or hoeing off the plants beneath the surface of the ground. Give the soil good fall cultivation, and next year cultivate well in spring and grow a hoed crop, such as roots, potatoes or corn, keeping the ground clean; and in following years give good ordinary culture, such as all land growing crops should have. 2. Regarding the horse manure, we would recommend levelling and tramping each week's supply, also throwing on a few shovels of gypsum (land plaster), and a layer of black soil or loamy earth. We would also recommend pouring on water at least once a week, and oftener if found necessary. This may seem a lot of work, but horse manure by itself is very liable to fire-fang and thus become useless, and we believe the plan outlined will keep it in good condition. It should be plowed under as early in the fall as possible.]

## Illustration Weed Killing.

The Ontario Department of Agriculture, following up the idea of the travelling dairy and travelling spraying of orchards, is having wild mustard fields in various parts of the Province sprayed with copper sulphate. The Assistant Biologist of the Guelph College, Mr. M. W. Roberts, B. S. A., who conducted the trials in mustard-spraying at the college in 1899 and 1900, has charge of the work, and will have visited a number of "yellow" neighborhoods before the end of June, spraying the mustard in the presence of farmers, who can witness the operation and watch the results during the following weeks.

MARKETS.

FARM GOSSIP.

June Crop Prospects.

MIDDLESEX CO., ONT.

The cool weather in May has done no harm to the grain and grass crops around here. There is scarcely any peas sown here, except grass peas, on account of the pea weevil. Corn came up pretty well, except on undrained land. It looked yellow but the last few warm days has colored it all right. The apple crop will be light.  
R. NICHOLSON.  
June 7th, 1901.

LAMBTON CO., ONT.

The continued cold rains of May have greatly retarded the growth of corn, but except on low, undrained fields, it has germinated and is coming all right, although sickly-looking. Peas on low fields are considerably hurt, but on higher land are looking well. The fruit crop does not appear to have been injured much by the rains, but apples will be a short crop. Cane berry bushes were badly winter-killed. Oats and barley are making rapid growth since the warm weather has set in, and hay promises to be an exceptionally good one.  
E. F. AUGUSTINE.  
June 6th, 1901.

BOTHWELL CO., ONT.

The cold May has hurt fall wheat more than spring crops, as most of peas, oats, barley and corn is promising, very good on well-drained lands. Apples, only a few trees blossomed. Peas, prospects good for full crops.  
A. J. C. SHARY.  
June 5th, 1901.

WELLINGTON CO., ONT.

Peas look well here. I have not noticed any injury from the weather except with corn, which I think will have to be resown.  
JAS. BOWMAN.  
June 4th, 1901.

BRANT CO., ONT.

I don't think the unusual amount of rain has had any serious effect on crops in this vicinity. The fruit blossom has probably been injured to a certain extent.  
R. S. STEVENSON.  
June 7th, 1901.

PEEL CO., ONT.

I am pleased to say that very little if any injury has been done peas or beans. Some of the barley in low places looked a little yellow, but the warmth and sunshine of the last few days have made all right. Very little corn was planted. What little was in I think will be all right. Most of the potatoes are to plant yet. Mangels and carrots have come up well, and promise a good crop. Plums and cherries promise well. I think they have been injured a little. Gooseberries have milled more than usual.  
J. PICKERING.  
June 5th, 1901.

ONTARIO CO., ONT.

Injury from wet weather is chiefly confined to delayed corn planting. In some cases that already planted is injured. Soil is made solid, and will work lumpy, we fear. The prospects for apples were good, but have every reason to expect a failure. Time will tell.  
ELMER LICK.  
June 4th, 1901.

NORTHUMBERLAND CO., ONT.

We are having a very wet time, raining nearly every day for the last two weeks. Low lands are badly flooded. Fall wheat badly killed in low lands, some very good pieces on high lands. Hay going to be a heavy crop. Spring grain looks well, except on low lands. Going to be very late for corn and potatoes, as it is too wet to get on the land. Pasture very good, and stock doing first-rate.  
June 6th, 1901.

CUMBERLAND CO., N. S.

The weather in May has been favorable in this section. Seeding was ten days earlier than last year. Heavy rain about the last of May retarded late seeding somewhat. Seeding is practically done now, except some turnips and buckwheat. Grass and pastures are exceptionally good, grain fair. Mangels appear to have made a good stand. Not very much sunshine the last two weeks.  
C. H. BLACK.  
June 9th, 1901.

MICHIGAN, U. S.

Since winter left us the weather has been very wet and cold, and unfavorable for growth. This is particularly noticeable on low land sown to fall wheat. The spring crop has also suffered from the same cause. Farmers are not through seeding. Low-lying meadow lands suffer for the want of warm, dry weather. Frost has done some damage on low land. The prospect for fruit is not good.  
HENRY JACKSON.  
June 5th, 1901.

PETERBORO' CO., ONT.

Peas and barley have suffered most on low and undrained land. The loss will evidently be considerable. It is a little too soon (after the rains) to estimate the injury, but in the most favorable way in which we can compute, the loss will be at least 20 per cent. The loss to corn will be in late sowing, as a great deal of this important crop is not sown yet, and what is sown, if the land was at all wet, has failed to come up.  
JOSHUA SMITHSON.  
June 7th, 1901.

BRUCE CO., ONT.

We have no reason to complain of crops having been injured by the recent unfavorable weather. Vegetation was almost at a standstill for a time owing to the cold, but the recent warm days are making things grow. Peas are looking unusually well yet. Most of the corn was not planted until warmer weather prevailed. Mangels seem to be the most backward of any of the field crops, and oats, owing to the slow growth, have been injured seriously by wireworms in some cases. Fall wheat looks well, and fruits of all kinds have set unusually well.  
JAS. M. MUIR.  
May 7th, 1901.

WENTWORTH CO., ONT.

While it has been extremely wet here, crops that are in the ground seem to be doing fairly well. Corn not planted yet, and a good deal of other crops was not got in. Consequently there are many bare fields that won't be got in now.  
JOHN JACKSON.  
June 5th, 1901.

RUSSELL CO., ONT.

The extent of damage done to all crops cannot very well be estimated, as the continued rains during May and so far in June have been very injurious. Very little corn has been planted yet, owing to the wet condition of the soil, and what was put in will in many cases have to be resown. A large acreage of grain has not been got in, and some have been resown. Roots are looking well on high ground. Hay and pasture are growing rapidly.  
GEO. R. BRADLEY.  
June 7th, 1901.

WATERLOO CO., ONT.

Having a gravel subsoil here, the rain has done little damage yet to field crops, with the exception of corn, the most of which is to sow yet. The orchards will scarcely be an average crop in this locality. Light blossoms and rain too much for trees, etc.  
JOHN TAYLOR, JR.  
June 4th, 1901.

PRINCE EDWARD CO., ONT.

The rains have done no serious damage in this locality, I am glad to say. Barley turned a little yellow, and timothy has not done much yet. Very few pieces of corn were planted previously to the rains here. It is now in full blast. Farmers are generally behind with their work, though.  
T. G. RAYSON.  
June 10th, 1901.

QUEEN'S WEST, P. E. I.

There has been no injury to any crops on the Island, or to the orchards so far. Crops are forward for this time of the year, and fruit trees just coming into bloom are quite healthy. Spring here opened two weeks earlier than the average. The crop—roots and all—is now pretty near all in. This is the off year for fruit here. Still the orchards look quite promising.  
WALTER SIMPSON.  
June 7th, 1901.

YORK CO., N. B.

We have not had any too much rain since growth commenced. Rather cool for growth in May, but splendid weather for spring field work. We are now getting heat, with sufficient moisture, causing a rapid growth of almost everything. Grass and pasture 10 per cent. above average crop, with oats and barley full crop at this time. Prospects for small fruits are good where a good growth of plant was secured last summer, but many fields of strawberries did not make so good a set of plants as they should have. Apple bloom variable, prospect of having a few to spare after supplying home market. Other crops are promising a good average yield.  
J. C. GILMAN.  
June 7th, 1901.

SHEFFORD CO., QUE.

The weather during May was just superb. Farmers got in crops in good time. The weather was all that could be desired up to within the past week, which has been wet, and as a result grass is the best in ten years. The past two days have been hot, with thunder showers to-night. If wet weather does not continue longer, there is no loss worth mentioning, only delay in planting the last corn for fodder, and making barley a little late. Potatoes are two weeks ahead of last year, and wheat and oats equally well advanced. The hay crop will be big, even if dry weather should come, as it is well advanced. The country never looked more beautiful.  
P. P. FOWLER.  
June 6th, 1901.

GREY CO., ONT.

This is a good summer for pasture in this district, and stock is consequently doing well. Grain crops are also looking well, except in a few places where wireworm is doing considerable damage, and in low-lying and heavy lands, where the recent rains have done some injury.  
JAMES SMITH.  
June 8th, 1901.

OXFORD CO., ONT.

It is yet too soon to definitely say to what extent the crops are injured, as the weather is still cool and moist. A week's hot sun will show the effect. All spring crops are injured and very backward in growth. Barley seems to be the worst, and I hear a great many complaints about old meadows. Corn will also have to be re-sown in many fields; the wireworm is destroying it.  
H. BOLLERT.  
June 6th, 1901.

HASTINGS CO., ONT.

All crops except those on low, undrained land have come through so far pretty well. Peas are all right. Corn is not yet all planted, but will be soon. Opinions are somewhat divided about the fruit crop, but no doubt it will be good. Vegetation is in advance of other years. Generally speaking, the country looks grand.  
W. C. DUFF.  
June 8th, 1901.

CHATEAUGUAY CO., QUE.

The crops in this district are looking well, with all the rain we have had. Peas in some places have suffered, but not seriously. Corn that was sown two weeks ago, in some cases was resown, but most is just sown now, and with suitable weather will do well. Hay and pastures are extra good, far above an average crop. Oats are good. Root crops have made a fair start. The weather has again turned cold, but with fine weather everything will do well. Clover in abundance.  
ROBERT NESS.  
June 8th, 1901.

The Farmers' Co-operative Packing Co.

The Farmers' Co-operative Packing Co., Brantford, organized through the instrumentality of Mr. Jos. Stratford, assisted by Mr. A. H. Vanloan and others, have the proud record of nearly 5,000 shareholders. The Co-operative Co. intend going into shipping poultry quite extensively next fall. They want 100 tons at least. They made a trial shipment of some 10 tons last season, which gave good results.

Georgian Bay Fruit Growers.

We have held a series of meetings lately, and formed what will be known as the Georgian Bay Fruit Growers' Association, with headquarters at Collingwood, Ont. I send you a bill of the places we have organized. W. B. Sanders, of Stayner, is president and C. Lawrence secretary of the central Association. The presidents and secretaries of the branch Associations are as follows: I. J. Honberger, president; F. E. Webster, secretary, Cremore. Dr. Honberger, president; S. Patterson, secretary, Stayner branch. W. W. Cox, president; C. Lawrence, secretary, Collingwood branch. J. Mitchell, president; C. W. Hartman, secretary, Thornbury branch. A. Gifford, president; Dr. Hamill, secretary, Meaford branch. At the series of five meetings held during the latter part of May the Ontario Department of Agriculture was represented by Mr. A. McNeil, of Walkerville, who has given such excellent service on horticultural subjects in connection with Farmers' Institute work.  
C. L.

Ontario Department of Agriculture.

Many farmers in Ontario appear to be under the impression that recent regulations adopted by the Ontario Government in regard to the destruction of the codling moth on apple trees are compulsory upon all persons. These regulations have been made in accordance with the provisions of the Noxious Insects Act passed in 1900. This is a local option act, and comes into force only in those municipalities that adopt it by by-law.

Ontario Agricultural College Examinations.

A change was made in the length of the O. A. C. course last year, by which students are now required to spend two years, instead of one, after getting their associate diplomas, before writing on the university examinations for the degree of B. S. A. This necessitates the examination of third-year students, under the direction of the College, while the candidates for the degree will be examined at the end of their fourth year by the University of Toronto. The change in the length of time required in preparation for the university examinations naturally leaves no candidates for the degree this year, but one student, Mr. M. Cummings, who did a part of degree work during the session of 1899 and 1900, and completed the regular university examinations, and has taken his degree. Next year there will likely be about a dozen candidates, the average number. The highest in general proficiency in university examinations, who obtains first-class honors in his special course, receives a special prize from the College. The winners of this prize in 1899 and 1900 were M. A. Linklater and G. A. Putnam (equal). Prizes in the different years are of the value of \$10 each in books, to be selected by the candidates.

**Scholarships.**—First year—(1) English (English, mathematics, bookkeeping and drawing)—H. L. Fulmer, Ruthven, Essex, Ont. (2) Physical science (mechanics, chemistry and geology)—W. R. Dewar, Fruitland, Wentworth. (3) Biological science (botany, zoology, horticulture and apiculture) J. M. McCallum, Shakespeare, Perth. (4) Agriculture (agriculture, dairying, poultry and veterinary science)—H. W. Houser, Campden, Lincoln.

**Medals.**—Second year—Governor-General's silver medal—First in general proficiency (1900-1901)—A. W. Partridge, Crown Hill, Simcoe.

**Prizes.**—Second year—Essay, "The Best Models of Victorian Prose Literature: Their Leading Characteristics Compared with Those of Their Most Noted Contemporaries and Predecessors"—J. Ferguson, Spring Hill, Carleton.

First in general proficiency, first and second year work (theory and practice)—H. M. Weekes, Glenora, Middlesex.

Toronto Markets.

The recent advances that have taken place in all market quotations for live stock have reached their limit. The quality of offerings this week was slightly below the average, but the general opinion is that the market will hold steady until the arrival of grass cattle. Exporters a shade easier; butchers' cattle steady; calves advanced. Hogs steady at quotations, with a disposition to decline. A shipment of 40 carloads of cattle left the Western cattle market for the British market on Tuesday last. A considerable increase in the supply of cattle to the Western cattle market is shown by recent returns:

	To May 31st, 1900.	To May 31st, 1901.
Cattle	52,891	72,486
Sheep	22,627	25,504
Hogs	84,850	
Calves	2,707	3,890

	For the months of May: 1900.	1901.
Cattle	14,533	22,314
Sheep	2,410	5,519
Hogs	14,214	13,900
Calves	1,105	1,537

**Export Cattle.**—Trade very quiet. Cables are discouraging; exporters not inclined to take any risk. Only a few novices taking chances, regular dealers holding off for lower freight. Choice lots of export cattle from \$5.15 to \$5.40 per cwt. Light export cattle are worth from \$4.50 to \$5 per cwt. The quality of cattle was only fair. Several buyers were not satisfied with the stock offered and refused to purchase.

**Butchers' Cattle.**—The recent advances are unwarranted, although a steady demand exists for choice ripe butchers' cattle, but an easy feeling exists with regard to offerings of all other kinds. Butchers all declare that the present prices are unwarranted by trade, but the Montreal market has forced the prices up. Choice picked lots of butchers' cattle, equal in quality to export, weighing 1,050 lbs. to 1,150 lbs., live weight, prime, smooth cattle, are worth \$5 per cwt. Loads of good butchers' cattle, suitable for local trade, are worth from \$4 to \$4.50. Medium cattle, mixed, cows, heifers and steers, are worth \$4.30 to \$4.55 per cwt.; in liberal supply, and inclined to drag the market. Mr. Con. Woods has the credit of paying the highest price for butchers' cattle on this market for a number of years: \$5.25 per cwt. is quite a record. Holders had difficulty in disposing of their offerings to-day; the supply larger than the demand. Many cattle held over for two market days at the advance looked for, but the demand slow.

**Bulls.**—Export bulls dull, with light offerings. A few choice bulls sold at \$4 to \$4.25. Light export bulls sold at \$3.50 to \$3.90 per cwt.; no demand.

**Feeders.**—Short-keep feeders in good demand by farmers for grass feeding. Many dealers were enquiring for stock, but unable to secure a large supply. One load of medium to poor Quebec rangers, as they are termed, were taken for the Western districts; shipped to London, Ont., to wait orders. Prices paid were from \$3.50 to \$4.25 for choice. Heavy steers, weighing 1,200 lbs. average, of good breeding quality, sold at \$4.90 per cwt. Light feeders, weighing 1,000 lbs. average, sold at \$4 to \$4.25 per cwt.; poor was brisk for all on offer, but the days of large supply have passed. All choice weights were quickly snapped up; the market firmer at the advance, with less discrimination as to color, at from \$3.25 to \$3.75 per cwt.

**Sheep.**—Prices a shade easier, at \$3.50 to \$4 for ewes and \$2.50 to \$3 for bucks. Farmers are raising a great many lambs this season, and prospects are that sheep will take the place of hogs around Toronto and districts in the future.

**Lambs.**—Yearling lambs sold at \$4.50 to \$5 per cwt., but the poor barnyard sort sold down to \$4 per cwt. Spring lambs, choice, sold at from \$4 to \$5.50 per head.

**Calves.**—In brisk demand. Trade was good, supply limited; everything sold on sight. Prices were good, and advanced to from \$4 to \$12 per head for very choice veals.

**Milk Cows.**—Good cows in demand. About twelve on offer, at from \$25 to \$50 per head. The poor to medium quality milkers offered met slow sale.

**Hogs.**—Run moderate; prices unchanged, but the limit of high prices reached \$7 for choice singers, 160 to 200 lbs. live weight. Mr. Wm. Harris is again at home, and looks remarkably well after his ocean trip. He is not yet prepared to talk of his arrangements as to the prospects of the dressed-beef trade to the Old Country, but he promises a surprise in a few weeks. Some very extensive alterations are now in progress at the Abattoir for the enlargement of the sheep-dressing floor.

PRODUCE MARKET.

Receipts of farm produce were 1,000 bushels of grain, about 10 loads of hay and a few dressed hogs.

**Grain Markets.**—It is not too much to say that at least a bountiful hay crop is assured by the late rainfall. Farmers have informed us that the land has never been too wet to work on. As the hay crop is by far the most important crop grown around Toronto, the great want now is warm weather, with occasional showers, to enable the late crops to make up for lost

time. As nearly everything is extremely backward, the conditions affecting vegetation can hardly be of too forcing a character for a bountiful harvest.

**Wheat.**—Seven hundred bushels sold at from 71c. to 72c. per bushel. Goose, 300 bushels sold at 63c. per bushel.  
**Hides.**—No. 1 green, 6c. per lb.; No. 2 green, 5c.; No. 1 steers, 7c.; No. 1 cured, 7c.; calfskins, 9c.; sheepskins, 9c.; wool, 15c.; wool, unwashed, 9c.  
**Eggs.**—The demand for export increasing, and offerings are well absorbed; market steady; 10c. to 11c. per case.

MARKET NOTES.

Mr. I. Wolstencroft, of Manchester, Eng., is at the market shipping best quality export cattle for Manchester Canal Co. He sent three carloads forward on Saturday.

Mr. I. Elliott, of Kingston, was on the market for feeders. Messrs. Brown Bros., of Collingwood, attend the market weekly for butcher cattle. This is quite reversing the order of things, as Collingwood was at one time one of our principal shipping points for supplies.

	Extreme comparative prices to-day.	2 weeks ago.	Same date last year.
Export cattle.....	\$ 5 30	\$ 5 25	\$ 5 12½
Butchers' cattle.....	5 00	5 15	4 50
Bulls.....	4 25	4 25	4 30
Feeders.....	4 75	4 75	4 50
Stockers.....	3 50	3 50	3 75
Sheep.....	4 00	3 85	4 25
Hogs.....	7 00	7 25	7 00
Milk cows, per head.....	50 00	49 00	51 00
Lambs, per head.....	4 50	5 00	5 25

Montreal Markets.

Montreal, June 13.—The receipts of cattle at the East End Abattoir this morning were 400 head of cattle, 150 calves, 200 sheep, 100 lambs. The demand was fairly good, and prices well maintained.

**Cattle.**—Choice sold at from 5½c. to 5½c. per lb.; good sold at 4½c. to 5c. per lb.; lower grades from 2½c. to 3½c. per lb. Calves were sold from \$2 to \$10 each.  
**Sheep** brought from 3½c. to 4c. per lb. Lambs were sold from 3c. to 4c. per lb.  
**Hogs** brought from 6c. to 7c. per lb.

Chicago Market.

Chicago, June 12.—**Cattle.**—Receipts, 21,000; Texans, \$5; good to prime steers, \$5.50 to \$6.30; poor to medium, \$4.50 to \$5.45; stockers and feeders, choice firm, \$3.50 to \$5; cows, \$2.75 to \$5; heifers, \$2.80 to \$5.10; canners, \$2 to \$2.70; bulls, choice, \$2.80 to \$4.65; calves, \$1 to \$5.85; Texas fed steers, \$1.40 to \$5.60; do. bulls, \$2.75 to \$3.85.  
**Hogs.**—Receipts to-day, 26,000; to-morrow, 25,000 estimated; left over, 2,500; top, \$6.25; mixed and butchers', \$5.90 to \$6.20; good to choice heavy, \$6 to \$6.25; rough heavy, \$5.85 to \$5.95; light, \$5.85 to \$6.10; bulk of sales, \$6.05 to \$6.15.  
**Sheep.**—Receipts, 15,000; sheep and lambs, good to choice wethers, \$3.85 to \$4.10; fair to choice mixed, \$3.60 to \$3.95; western sheep, \$3.90 to \$4.10; yearlings, \$4 to \$4.40; native lambs, \$4 to \$5.10; western lambs, \$4.60 to \$5.10.

British Live Stock Markets.

London, June 12.—(Special.)—Prices are unchanged, at 10½c. to 12c. per lb. (dressed weight); sheep sell at 12c. to 13c.; lambs, 14c. per lb.; refrigerator beef is 9½c. to 10c. per lb.

Fairs of 1901.

Winnipeg (Industrial).....	July 29 to Aug. 2
Sherbrooke, Quebec.....	Aug. 31 to Sept. 7
Toronto (Industrial).....	Aug. 26 to Sept. 7
London (Western).....	Sept. 5 to 14
Ottawa (Canada Central).....	Sept. 13 to 21
Halifax, N. S.....	Sept. 14 to 21
Collingwood.....	Sept. 21 to 27
Parkhill (W. Williams).....	Oct. 1 and 2
Goderich.....	Oct. 1 and 2
Chatham.....	Oct. 8 to 10

UNITED STATES.

Chicago International..... Nov. 30 to Dec. 7  
 Buffalo (Pan-American)—Dogs, Aug. 27 to 30; swine, Aug. 26 to Sept. 7; cattle, Sept. 9 to 21; sheep, Sept. 23 to Oct. 5; horses, Oct. 7 to 19; poultry and pet stock, Oct. 21 to 30.

Manitoba Crop Report.

DISTRICT.	Wheat. Acres.	Oats. Acres.	Barley. Acres.
North-western.....	199,210	148,610	20,490
South-western.....	791,840	225,120	43,960
North Central.....	345,100	106,505	15,135
South Central.....	522,600	151,100	62,400
Eastern.....	153,085	78,616	11,624
Province.....	2,011,830	689,951	191,009
Total area under Flax.....			20,978 acres.
" Rye.....			2,907 "
" Peas.....			879 "
" Corn.....			1,802 "
" Brome.....			7,565 "
Province.....			21,429 Potatoes. Acres.
			10,214 Roots. Acres.
Total area under grain crops, 2,919,201 acres.			
Total area under all crops, 2,951,409 acres.			

	1900. Acres.	1901. Acres.
Area under Wheat.....	1,806,215	2,011,830
" Oats.....	572,950	689,951
" Barley.....	178,525	191,009
" Flax.....	20,457	20,978
" Potatoes.....	16,880	21,429
" Roots.....	7,482	10,214
Total crop, including Rye, Peas, Corn, etc.....	2,612,131	2,961,409

O. K.

The expression "O. K." is attributed to President Jackson, who is said to have written "O. K." for "all correct." The letters are now used very generally throughout the United States to signify that all is correct. Elsewhere in this issue we show an illustration in connection with which the letters "O. K." are used. The picture shows a farmer providing himself with a binder. With the machine he is buying he will have no trouble in harvesting his grain crops successfully, and any farmer could well afford to imitate this man. For many years the farmer was compelled to resort to hard labor in harvesting his grain and grasses—that was the age of the sickle and scythe. McCormick's inventions have removed that burden, and in comparison with the old way, harvest work now is not irksome, neither is it drudgery. One man with a McCormick machine can do the work of fifteen or twenty men. If you haven't a McCormick, call on the McCormick agent in your locality or write at once to the McCormick Harvesting Machine Company, Chicago, U. S. A. Mention this paper.—Advt.



THE VALUE OF POETRY.

Blessings be with them and eternal praise  
 Who gave us nobler loves and nobler cares—  
 The Poets.

—Wordsworth.

This is a commercial and prosaic age—an age of hurry and turmoil. The keenness of the world's competition is such that every man has a hard struggle to keep abreast with the stream. There is no room for the weak or the idle, and inevitably they go to the wall. It is not altogether a bad thing, this fierce and never-slacking competition. The manhood of our race can only be kept up by contest. Peace of any kind is productive of languor, and languor is the forerunner of decadence. One of the greatest attributes of men of British race is their love of fighting and hard work. They are always engaged in a rivalry of arms or of trade, and as long as this spirit lasts the British Empire will retain its supremacy.

But this enthusiasm for work has its disadvantages also. It is apt to stamp out the latent poetry in the souls of men. It narrows men's sympathies, and often gives them Mammon for an ideal rather than the spirit of Beauty and Nobility. I do not wish to lay an unjust accusation against business men as a class, but it is not in human nature to be always busy in the pursuit of wealth, or even in the hard struggle for one's daily bread, without having a tendency to become somewhat sordid in character, with no high ideals to cheer one along the rough path of life. "Early and late, getting and spending, we lay waste our time," wrote Wordsworth, in that most lovely sonnet in which he rebukes the mercenary spirit of the age.

Therefore I most earnestly desire to encourage my friends to read good poetry, as far as it does not interfere with those commercial subjects which are necessary for their welfare in life. The great collection of British poetry is the noblest and the greatest in the world's literature, and to neglect its treasures is like turning one's back upon a princely heritage.

There are a hundred reasons why the study of poetry is most valuable. First, because it contains the choicest wisdom of all ages, set down in words that stir the heart like the chords of a glorious melody. From the infancy of the world, men of great hearts and mighty intellect have found vent for their joys and sorrows, for the wonderings of their spirit at the mystery of the universe, for their gladness at the glories of Nature offered to them by the lavish hand of the Creator, in harmonious song, that came from their hearts to touch responsive chords in their fellow-men. The wisdom that men have learnt by bitter experience, or infinite wrestling with thought, has been set down in burning words for the sake of all who care to listen. And the voices of Nature herself, the song of birds, the babbling of brooks, the rustling of the wind through the forest, the waving of the flowers in the grass, the hum of myriad insects on a summer's day, have been translated into words of beauty by men and women to whom Nature has whispered secrets unheard by vulgar ears.

Those who do not read poetry lose the acquaintance of a good counsellor, who will comfort them in time of trouble, who will cheer them when they are discouraged, who will point out the straight path when they have lost their way in a tangled forest, who will sympathize with their sorrow, and be glad in their gladness, who will enliven them with bright thoughts when they are dull, and lead them into the company of the immortals when all around seems commonplace and humdrum.

Those who read poetry have a golden store of good things to help them along the road. In every doubtful moment of their life a few lovely lines of wisdom come ringing upon their ears like the sound of bells upon the night, which tell the lost traveller where to direct his steps. When a man stands at the parting of the ways of duty and self-indulgence, Tennyson's noble lines may guide him to the true path—

"Not once or twice in our rough island-story,  
 The path of duty was the way to glory.  
 He that walks it, only thirsting  
 For the right, and learns to deaden  
 Love of self, before his journey closes,  
 He shall find the stubborn thistle bursting  
 Into glossy purples, which out-riden  
 All voluptuous garden-roses.  
 Not once or twice in our fair island-story,  
 The path of duty was the way to glory.  
 He, that ever following her commands,  
 On with toil of heart and knees and hands,  
 Through the long gorge to the far light has won  
 His path upward, and prevail'd.  
 Shall find the topping crags of duty scaled  
 Are close upon the shining table lands,  
 To which our God Himself is moon and sun."

To those of us whose hearts bear the dull, aching pain inflicted by the loss of one most dear to us—a wife, mother, sweetheart, or friend, who having gone from us seems to have left the world wholly dark, those other lines of Tennyson come to us like a soothing balm:

"I hold it true, whate'er befall,  
 I feel it when I sorrow most,  
 'Tis better to have loved and lost  
 Than never to have loved at all."

A man or woman who sometimes sighs for wealth and luxury denied, for a fame that they have striven after but never reached, for intellectual gifts that have been withheld, may take courage in that simple and lovely poem of Sir Henry Wotton, which has cheered the hearts of quiet folk for three centuries and more:

"How happy is he born or taught,  
 Who serveth not another's will,  
 Whose armour is his honest thought,  
 And simple truth his highest skill."

"This man is free from servile bonds  
 Of hope to rise or fear to fall;  
 Lord of himself, though not of lands,  
 And, having nothing, yet hath all."

Four lines by a poet who, if he had written nothing else than these, would have been worthy of immortal fame, teach us that life is not to be measured by years, but by our thoughts and deeds:

"We live in deeds, not years—in thoughts, not breaths—  
 In feelings, not in figures on a dial;  
 We should count time by heart-throbs. He most lives  
 Who thinks most, feels the noblest, acts the best."

As an antidote to one of the commonest failings of the day, the habit of criticising our neighbors, laughing at their foibles, imputing the worst motives to their actions, and regarding their outward form and fashion rather than their real characters, Adelaide Proctor's beautiful poem, "Judge Not," may well be committed to memory:

"Judge not; the workings of his brain  
 And of his heart thou canst not see;  
 What looks to thy dim eyes a stain,  
 In God's pure light may only be  
 A scar, brought from some well-won field,  
 Where thou wouldst only faint and yield."

"The look, the air, that frets thy sight,  
 May be a token that below  
 The soul has closed in deadly fight  
 With some infernal fiery foe,  
 Whose glance would scorch thy smiling grace,  
 And cast thee shuddering on thy face!"

Poetry, besides giving one great ideals, fine thoughts, a broad sympathy and infinite consolation, helps one also to cultivate a noble style of writing, and any of my readers who are ambitious to gain a success in literature must first make friends with the poets. The lingering melody of a lovely line rings in one's ears for years, and by reading much poetry one's ears are attuned to delicate combinations of sound, to the perfect cadence of metre, and to beauty of expression which can never be learnt by rule, or by the deepest study of grammar.

"She never told her love,  
 But let concealment, like a worm i' th' bud,  
 Feed on her damask cheek."

There Shakespeare gives us an example of a lovely thought expressed in most perfect language.

"Now came still evening on, and twilight gray  
 Had in her sober livery all things clad;  
 Silence accompanied; for beast and bird,  
 To their grassy couch, these to their nests  
 Were slunk, all but the wakeful nightingale,  
 She all night long her amorous descant sung.  
 Silence was pleased. Now glowed the firmament  
 With living sapphires; Hesperus, that led  
 The starry host, rode brightest; till the moon,  
 Rising in clouded majesty, at length,  
 Apparent queen, unveiled her peerless light,  
 And o'er the dark her silver mantle threw."

Thus Milton describes evening in Paradise, in language that is like the voice of Nature herself, in lines full of a sweet melody. In Shakespeare's words—

"It had a dying fall,  
 Oh, it came o'er my ear like the sweet south  
 That breathes upon a bank of violets,  
 Stealing and giving odor."

The Click o' the Latch.

Oh, the click o' the latch! how pleasant its sound  
 When at evening my father returns  
 From his work on the farm, and he smiles to see  
 The fire as it brightly burns.  
 And he sees the table for supper spread,  
 Prepared by his daughter's hand;  
 "There is not another such housewife as she,"  
 He says, "in the whole broad land."

"Click! click! goes the latch with a merry sound.  
 As my brothers return one by one,  
 Each honest face glowing with smiles at the thought  
 Of the work of the day well done.  
 As my mother smiles welcome to each as he comes,  
 A glad woman is she, I ween;  
 And as each stoops o'er to kiss her dear face,  
 She looks up as proud as a queen."

Oh, the click o' the latch! as cheery its sound  
 As the chirp of the cricket at eve;  
 Though the folks are all home, yet I listen for it,  
 As I muse and sweet fancies weave,  
 I fancy I see in the twilight a youth  
 Coming up by the blackberry patch,  
 And I list for the sound of his footsteps and dream  
 That I hear the click o' the latch.

Oh, the sweetest music that ever I heard  
 Is the sound of his manly voice,  
 And the truest heart in the whole wide world  
 Is the heart of the lad of my choice.  
 Ah, that merry whistle, I know it well,  
 It comes from the blackberry patch—  
 Here he comes at last! That step—it is he!  
 I hear the click o' the latch.

Defied the Baron.

Important officials sometimes forget that there are persons who can afford to disregard their importance. A purse-proud old nobleman was traveling through the rural districts of Sweden. One day he stopped his carriage at a country tavern, and called out in an imperious tone:

"Horses, landlord! Horses at once!"  
 "I am very much pained to inform you that you will have to wait over an hour before fresh horses can be brought up," replied the landlord, calmly.

"How!" violently exclaimed the nobleman. "This to me! My man, I demand horses immediately!"  
 Then, observing the fresh, sleek-looking ones which were being led up to another carriage, he continued:

"For whom are those horses?"  
 "They were ordered for this gentleman," replied the landlord, pointing to a tall, slim individual a few paces distant.

"I say, my man!" called out the nobleman. "Will you let me have those horses if I pay you a liberal bonus?"  
 "No," answered the slim man. "I intend to use them myself."

"Perhaps you are not aware who I am!" roared the now thoroughly agitated and irate nobleman. "I am, sir, Field Marshal Baron George Sparre, the last and the only one of my race."

"I am very glad to hear that," said the slim man, stepping into his carriage. "It would be a terrible thing to think that there might be more of you coming. I am inclined to think that your race will be a foot-race."  
 The slim man was the King of Sweden.

Open the Door.

Open the door, let in the air;  
 The winds are sweet, and the flowers are fair.  
 Joy is abroad in the world to-day;  
 If our door is wide it may come this way  
 Open the door!

Open the door, let in the sun;  
 He hath a smile for every one;  
 He hath made of the raindrops gold and gems;  
 He may change our tears to diadems.  
 Open the door!

Open the door of the soul; let in  
 Strong, pure thoughts which shall banish sin.  
 They will grow and bloom with a grace divine,  
 And their fruit shall be sweeter than that of the vine.  
 Open the door!

Open the door of the heart; let in  
 Sympathy sweet, stranger and kin.  
 It will make the halls of the heart so fair  
 That angels may enter unawares.  
 Open the door!

—British Weekly.

THE QUIET HOUR.

False Economy.

"Is thy cruse of comfort wasting? Rise and share it with another. And through all the years of famine it shall serve thee and thy brother; Love divine will fill thy storehouse, or thy handful still renew; Scanty fare for one will often make a royal feast for two. For the heart grows rich in giving, all its wealth is living grain; Seeds (which mildew in the garner) scattered, fill with gold the plain. Is thy burden hard and heavy, do thy steps drag wearily? Help to bear thy brother's burden, God will bear both it and thee."

Economy is a good thing, of course, but, like many other virtues, it becomes a vice if carried to an extreme. There is a story told of a man who became rich because of his careful economy in trifles. His clerks had to light all the lamps in his store with one match, and the rest of his business was carried on in the same spirit. Men who practice such a rigid economy that they may rightly be called "close," sometimes become rich—although, even in business, such a course is generally fatal to success—but they certainly lose far more than they gain. It is right to be careful in the very smallest matters, to allow no waste in the household. Our Lord taught this lesson when He commanded the disciples to gather up every fragment after the multitudes were fed, although He could easily have made provision for thousands more. Because we have plenty is no excuse for wastefulness, but often apparent economy is really waste.

"We lose what on ourselves we spend  
We have as treasure without end  
Whatever, Lord, to Thee we lend,  
Who givest all."

It is a great mistake to think that God takes no account of what we are pleased to call "trifles." He is interested in even such small matters as the shaking of a tree or the way in which the corners of a field are cleaned. The Israelites were forbidden to make clean riddance of the corners of their fields—something must always be left for the gleaners. A sheaf that had been overlooked in the field must not be fetched. The olive trees were not to be shaken a second time, nor the grapevines clean stripped. These things were certainly not left to be wasted. They did not belong to the farmers at all; they were the property of the poor gleaners—the stranger, the fatherless, and the widow. Boaz was a rich man who fulfilled the law generously, for he told his young men to let fall some handfuls on purpose for a poor girl to glean. This law should be carried out now in the spirit rather than in the letter. It would be waste to leave good grain in the fields where there are no gleaners to gather it, but in many ways we can see that the poor are not defrauded of their lawful portion. The grain is scattered in the fields that it may increase, and surely this is a parable to encourage liberality in everything: "There is that scattereth and yet increaseth; and there is that withholdeth more than is meet, but it tendeth to poverty. The liberal soul shall be made fat, and he that watereth shall be watered also himself." If we sow sparingly, it is no use expecting to reap bountifully. This holds good in both natural and spiritual things. Don't leave your grain, fruit, vegetables or flowers in the field to be wasted, but see that they do good to somebody. In many cases you will find that your own supply will last longer if you pick things freely, not allowing them to go to seed. This also is a parable.

If you are not prosperous, if your crops are cut down by frost or injured by drought, don't sit down and grumble, but "Consider your ways. Ye have sown much, and bring in little; ye eat, but ye have not enough; ye drink, but ye are not filled with drink; ye clothe you, but there is none warm; and he that earneth wages, earneth wages to put it into a bag with holes. Thus saith the Lord of Hosts, consider your ways." The Israelites thought the cause of their trouble was the want of rain, but the prophet told them that the real cause was their neglect of God's honor. They built their own houses, but allowed the house of the Lord to lie waste. God had warned them long before that if they did not obey and serve Him, the heaven should be like brass, the earth hard as iron, and the rain should be powder and dust. They should carry much seed into the field and gather little in: the worms should eat their grapes, and the olive trees should cast their fruit. On the other hand, if they obeyed God, He would send his blessing on the increase of their fields and cattle, and would bless all the works of their hands. When Elijah found a poor widow preparing to cook her last handful of meal, he asked her for a share of her scanty stock of food, and she gave it to him. If she had practised a rigid economy then, she and her son would probably have starved before the famine was over. It is always false economy to be niggardly, but very few of us could stand such a test of generosity as that. The very poor are generally more willing to give of their little than the rich. One who had a great deal of experience in the New York slums, said that it was wonderful to see how many were eager to help others who were "poorer than they." One German family, nearly starving, themselves, took in an old man, who was past work, and kept him all winter. They hardly knew him; it was enough that he was lonely, hungry, and cold.

"We need—each and all—to be needed,  
To feel we have something to give  
Towards soothing the moan of earth's hunger;  
And we know that then only we live  
When we feed one another, as we have been fed  
From the Hand that gives body and spirit their bread."  
One kind of false economy is economy in wages. To withhold from your helpers the money honestly

earned, or to pay them just as little as you can possibly get them to work for, is not justice. Do not fancy that God overlooks such things. He says: "Thou shalt not oppress a hired servant that is poor and needy. \* \* \* At his day thou shalt give him his hire, neither shall the sun go down upon it: for he is poor and setteth his heart upon it: lest he cry against thee unto the Lord." And again, He pronounces woe upon him "that useth his neighbor's service without wages, and giveth him not for his work."

Perhaps the worst kind of economy is trying to save by making our offerings to God as small as possible. It harms ourselves terribly, both temporally and spiritually. We can't transfer our obligations, either. If one person in the seat puts 10 cents on the plate, that is no reason why another should give nothing. A little girl put sixpence into the bag at church and whispered: "That's all right, grandma! I paid for two."

"That man may last, but never lives,  
Who much receives but nothing gives;  
Whom none can love, whom none can thank,  
Creation's blot, creation's blank."

HOPE.

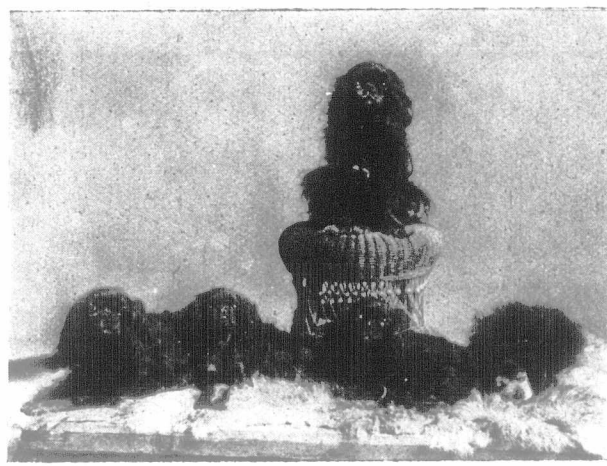
THE CHILDREN'S CORNER.

What Would You Do?

I am not quite sure whether Marian was cross that morning or not, but it is quite certain that she looked so. "Oh, dear," she said, pouting. "Seems to me some people have everything."

By "some people" she meant May Wilson; by "everything," the pair of black ponies which May had received on her birthday. And, indeed, I think that almost any fifteen-year-old girl, finding herself sole mistress of those sleek ponies, and the gay little cart with the yellow wheels, would have felt that her most ambitious dream of pleasure had been fully realized.

"Yes, May has everything nice," assented Jessie with a sigh. Jessie was Marian's bosom friend, and, except on rare occasions, they agreed perfectly.



GROUP OF FAVORITE KING CHARLES SPANIELS.  
OWNED BY MRS. W. S. LISTER, "MARCHMONT FARM,"  
MIDDLECHURCH, MAN.

"If you owned those ponies, now," she went on, musingly, "what would you do with them?"

"Take you riding every single day," answered Marian promptly. "Wouldn't the other girls be jealous, though!"

A rattle of wheels in the street below prevented Jessie's reply, and the two girls ran eagerly to the window. "There she is now," Marian exclaimed, half resentfully, as the gay little turnout passed. May, glancing back, waved her whip laughingly at her friends, who looked at each other doubtfully. "Who is that with her?" Jessie asked, staring hard after the white-faced little girl closely wrapped in shawls in spite of the warmth of the day.

Marian reflected. "Oh, I know. She's the daughter of that little bit of a woman who comes here to help about the cleaning sometimes. They live over the grocer's on the corner, and the girl's been sick ever so long. How funny for May to take her riding!"

A couple of days had passed, and the girls were resting on the front lawn one afternoon, when May again drove by. This time her companion was a little old lady, from under whose quaint bonnet looked out the happiest wrinkled face imaginable. Her lap was piled with golden-rod, and purple asters, those late darlings of autumn, whose wide-awake faces seem to defy frost and cold alike.

"Doesn't it look as if we had brought the fields home with us?" called May, while the little old lady laughed and hugged her treasures closer. And after they had passed, Marian asked, in an odd voice, "Say, Jessie, isn't that the old Mrs. Winter who lives at the poorhouse?"

Jessie nodded. "Yes. Mamma says they were really well off once, and were always helping everybody, but Mr. Winter died, and somebody cheated her out of all her property. I suppose she's unhappy up there. You know she's lame, and can't even go to church."

It was Saturday, I believe, when they again met May down town, and she stopped to speak with them. The little cart seemed overflowing with children. There were three on the seat with May,

and a sturdy four-year-old was perched on a stool in front.

"I want to come and take you driving some day next week, girls," May said with her quick, bright smile. "I should have come before, but Mrs. Waldo—she's our minister's wife, you know—has been sick for two or three days, and it worries her to hear the children playing around. So I take them out with me, and as long as I'll drive them they'll be perfectly good;—won't you, Robbie?" with a laughing glance toward the little man in front.

"Yes. We're perfectly good," Master Robbie assented promptly. Then he added, with the air of one whose patience was nearly exhausted, "Now please say gedap, and don't talk any more."

May laughed and obeyed. And as the ponies trotted blithely away, Jessie said as she had said a week before: "Yes, May has everything nice." But her voice had an argumentative sound, as if she were replying to some unspoken thought.

Marian answered promptly. "Yes, she has everything, and she deserves it. Oh, Jessie, how different she is from the rest of us. When we get something nice we think what fun we and our particular friends can get out of it, but May just thinks what she can do for other people."

Jessie was silent, in her loyalty to her friend unwilling to admit that any girl could be more unselfish than she. "Perhaps if you had as much as May, you'd do as much for other people," she suggested feebly at length.

Marian shook her head, determined not to accept the undeserved comfort. "No, Jessie; if I'm selfish with what I have, it wouldn't make me unselfish to have more. Why, I can hardly bear to let the children take my checker-board or my croquet-set. But I'll tell you, Jessie," she added, lowering her voice, for, like most girls of her age, Marian found it hard to tell her best thoughts even to her most intimate friend, "I'm going to try after this to be unselfish enough so—well, so that I could be trusted even with a pony-carriage."

COUSIN DOROTHY.

A Message from Mollie.

If Mollie's promised "Notes" do not reach us in time for this issue, a message from her will serve to prove to her readers that she has not forgotten them, and this message they shall have. Under date of 22nd May, Mollie writes from London: "I wonder what you will think of my long silence! But the fact is that I have been sight-seeing with a vengeance—ever since I landed in England. Everything is so overpowering, that even if one did not come in tired out in mind and body, as I literally have done daily for the last six weeks, it would seem impossible to find the right words with which to give a readable account of one's varied experiences. Now, Oxford, for instance, from which I have but just returned: I should want columns of space, instead of only the limited amount which is all the ADVOCATE can allot me, to give my dear readers any conception of that marvellous seat of learning. As we walked around that fine old city, through the quads, gardens, halls, libraries and chapels of its glorious colleges, the thought would obtrude itself, how can I attempt to tell them all about it? My own heart was overflowing, and I wanted to share with my Canadian sisters the pride of heritage with which it was surcharged as tale after tale was unfolded of the past history of the Oxford I was visiting to-day—a history which my eyes could read as well as my ears hear. But presently I will collect my jottings into a less disjointed record than I can attempt to send you by this mail, just only adding now that my enjoyment of it all was greatly enhanced by the pleasure of having for my hostess and cicerone one who, like myself, hailed from the Forest City of Ontario, and who, as the wife of a resident Oxford professor of note, not only gave me the glad hand for old sake's sake, but who could so thoroughly enter into the feelings of a Canadian on visiting for the first time one of the two great universities of the motherland."

We hope to have a nice long letter from Mollie in time for our next issue.

Humorous.

An excursionist newly arrived from the coast after a week's holidays was accosted by a friend as to what kind of weather he had. He replied—"Man, there wis only wan shoor, bit it lasted a' the time."

It was a moonlight night, and two farmers, who had been in Aberdeen and got a little intoxicated, were proceeding homeward with the train. Just as the train was crossing a river one of them chanced to look from a window of their compartment, and on seeing the reflection of the moon in the water, exclaimed to his neighbor—"Losh keep's, Sandy, whaur on earth can the train be takin' us till? It his us above the meen already."

A literal copy of a letter sent to a parish clerk is rather quaintly amusing: "Mister, mi wief is dede, and wants to be berriet, digg a grav for her, and she shall come and be berriet two-morro at wan o'clock; you know where to digg it, by my other wief, but let it be dip."

Two brothers were working in a stone quarry in the Highlands. One of them hurt his leg, and his brother sent home this filial letter: "Dear mother,—Here's a letter frae Donald, your son. Puir Sandy's broke him's hock in quarry hole. Wishing ye a' the same. Post haste, and away she goes."

A tramp rapped at a door the other day, and asked the woman if she could spare him a piece of bread. "No, I can't," replied the woman. "I am a policeman's wife, and if my husband were in he would take you." "Well," said the tramp, "if he'd take you, he'd take anybody." (Collapse of woman.)

A colored girl happened to meet a gentleman going down a street in New Orleans, and nearly came in collision with him. Then both made for the other side of the path, and another collision was imminent. They then danced back and dodged again, when the girl suddenly stopped and said—"See heah, mister, what am dis gwine to be—a schottische or a waltz?"

### The Right and the Wrong.

This afternoon, sisters, I was glancing through the columns of the "men's" portion of the *ADVOCATE*—not because of any mere curiosity—oh, dear, no! nor yet because of any insane would-be-masculine desires in regard to farm management, but solely and simply because, like many another farmer maiden, I choose to be interested in the dear, beautiful country, and the farms and all that pertains to them. However, this is nothing to the point! What I'm coming to is this: In my peregrinations through the pages, the "Beet Culture," the "Corn Planting," and all the rest of it, one thing struck me forcibly—in fact, almost glared at me from every paragraph—viz., this truth: that there are two ways of doing everything—a right way and a wrong way; that the right way is essentially sensible, economical, scientific, and must lead to the best results; that, on the other hand, the wrong way is invariably foolish, extravagant, haphazard, yielding only, in a greater or lesser degree, failure and discouragement in the end. So much for a preamble!

Now, following this idea out, I began to wonder how many of us farmer women ever pause to think that this same system of opposites runs into our work as well—into the tiniest detail of it, and that it is both to our interest and our profit to find out the very best way of doing everything, and to be contented with no other. To our *interest*, I say, and repeat it, for housekeeping, buttermaking, gardening, and all the rest of it, can never become mere drudgery to the bright, intelligent woman who is determined to make of her work an *art*. To our *profit*, I say, and repeat it, because the *best* way is invariably labor-saving, "worry-saving"—and is the sparing of strength and of "nerves," no small gain? Of course, from this point of view one cannot mark down the profit in hard dollars and cents, but, as Kipling says, "that's another story," and there is much to be said of it too, but not here and now.

Laying down, then, as an axiom, that, in housekeeping as in all other things, there are two ways of doing things, a right and a wrong, let us look for a moment at the different conditions brought about by each. I have seen, and so have you, again and again, these two homes: In the first, everything runs quietly, comfortably, smoothly, as by machinery oiled. The house is, except on rare, unavoidable occasions, in perfect order, and spotlessly clean; the meals are invariably cooked to a turn, with the "right taste" to the dishes served; and the people themselves bear about with them an unruffled cheerfulness that makes one feel the better for having been in the same atmosphere with them for a while. In the second, on the contrary, bustle and confusion seem to reign continually. The place is clean enough, but "mussy." The meals always seemed to be "slopped" up, and the people, especially the women, if caught unawares, are perceptibly worried and preoccupied in manner, as though conscious of deficiency in the appearance of things, and, consequently, ill at ease.

Now, in both of these cases the people are equally respectable—fine, upright persons, whom to know is to respect—and yet one cannot help feeling that in the second home there is an element of unrest and discomfort wholly absent from the first. One cannot help seeing, also, that this discordant element is probably due, in some way, to some lack upon the part of these same ruffled women, who ought to be the true homemakers. The men must provide, the women must dispose of the provision. Their failure to do so in a comfort-giving way may be due, occasionally, to carelessness or sheer want of energy; but in nine cases out of ten the whole fault comes of lack of system, or lack of knowing how to do things in the right way.

Now, there is really no excuse for this. There are good books on housekeeping in the world, and there are good housekeepers at our very doors who are only too willing and too glad to tell anything which may help others. Any woman; therefore, who has good common sense, sharp eyes, willing hands, and a tongue to ask questions, may become a good housekeeper. Even if she be able to keep servants, she should make a point of understanding how everything is done in the right way. Of course,

the whole art of domestic science cannot be learned in a month, nor a year, nor in five years even. But that is where the interest comes in. Some of our very best housekeepers go on learning a little here, a little there, perhaps during all their lives. Hence, there is no need for any to give way to discouragement. All things become easy with practice.

It is impossible, in a single letter, to touch upon more than the barest outline of "the right and the wrong" in this line. To the whole of us the thing immediately necessary is to realize that there is a right and a wrong. The rest has to be learned in the concrete, one thing at a time. Hence I shall close by promising to give a bit of personal experience in my next letter, which may help someone afflicted, as was I, in the matter of cakemaking! Don't laugh, sisters, at this sudden drop. Only be satisfied if the cake does not drop, should you try it. My homely old name is— "CLARISSY ANN."

### "Parting of Edgar and Lucy of Lammermoor."

Scott's loveliest and profoundest tale—the im-



By the late John Everett Millais.

"PARTING OF EDGAR AND LUCY OF LAMMERMOOR."

mortal "Lucy of Lammermoor"—has gone around the world in every form: in opera, in picture, in prose translation. The painting shows the last stolen interview of the lovers. Edgar, of Ravenswood, by his look of gloomy foreboding, seems to predict his future horrible death in the quicksand; while Lucy's air of utter and hopeless desolation is a fitting prelude to her madness and early grave. The painting, which is imbued with an intellectual depth of expression hardly to be found in the works of continental painters, shows at the same time a slightly artificial arrangement in its bowery ferns and branches, which reflects the formal traditions of the antique English school.

John Everett Millais, the most popular portraitist and genre painter of recent days, was remarkable also as one of the most precocious. He was born at Southampton in 1829, and was a boyish prodigy at the age of eleven, when he entered the Royal Academy. At the age of seventeen he exhibited a picture at the Academy, "Pizarro Seizing the Inca." In 1849 he produced his "Isabella," from Keat's poem, and about the same time associated himself with Holman Hunt, Rossetti,

and such younger disciples as Charles Collins, in the formation of the "Pre-Raphaelite School." The views of the enthusiasts cannot be fully explained in a paragraph; suffice it to say that, discontented with academic teaching, or the tradition of art based upon the Greek sculpture, were unearthed the Botticellis, the Peruginos, and the Bellinis. The new theory took different forms with the several practitioners. In the clear and practical mind of Millais it assumed the shape of photographic minuteness and accuracy. Accordingly, he produced an "Ophelia" drowning once more in a bleak gray enumeration of willow leaves; a "Proscribed Royalist" in which a royal oak and not the skulking lover was the true hero of the picture; and a subject of "Huguenots" in which, again, the accessories, the dresses, the still-life of the composition, distracted attention from the main subject. Violently championed by Ruskin, the "Pre-Raphaelite" clique had a great success of eclat, until it failed from self-fatigue and exhaustion. Millais himself, the most famous and intelligible of its adherents, changed his style, and instead of the old, insipid enumeration of the details of nature,

gives us now a broad impression and a sympathetic view. This almost single-handed war with the Academy did not prevent that magnanimous body from electing him an associate as early as 1853.

The painting here presented is to be found in the collection left by the late Mr. W. H. Vanderbilt.

### Housecleaning.

"So many men, so many minds, every man in his own way." I suppose it is the same with us women, and if we only used those minds to advantage always, there would be fewer "squabbles" and consultations about those men, for if we would but remember that "discretion is the better part of valor," and that "every wise woman buildeth her house"—but there, it is about the house that I intended to talk, or, rather, the cleaning of it, about which there are "so many women, so many minds, every woman in her own way."

However, most women agree on two points, viz., that there must be a spring cleaning sooner or later, and that the men, for a few blissful weeks, must submit to feminine authority, and never say "boo." They usually do behave very creditably, too, poor things, lending all the assistance they can, despite the fact that for them "the melancholy days are come, the saddest of the year." It is we women, however, who have the greater right to such a martyr spirit, but it is a strange fact (one of the compensations that Emerson speaks of, I suppose) that those who perform the disagreeable tasks in life seldom feel the discomforts as keenly as do the onlookers. Some housecleaners proceed from garret to cellar; others *vice versa*. We prefer the former way, as there is less likelihood of littering the already clean rooms, and besides, the "downhill path is easy," and one has no desire to "turn back" in housecleaning time. Some take one room at a time; others seem to take the whole house. Some burrow into the corners with a stick like a knitting needle, while others circle gracefully around them, with all due respect to the feelings of spiders, etc. Some look trim at their work, in neat collar and dusting-cap, while others tie a red bandanna about their heads and clutter about in "pa's" old galoshes. "So many women, so many minds." We always make it a point to paper and paint, more or less, in the spring, and in choosing colors, contrive to get combinations that will harmonize with the various lights of the rooms. There is no reason why we farmers' wives and daughters shouldn't have our houses as artistic as those of our city sisters. For instance, a soft yellow or pink, or some shades of red, suit a north room; blue, gray or tan, an east or west room; and dull greens and some blues give a depth and coolness to rooms facing south. In painting, we always use boiled linseed oil as a medium, as turpentine is apt to destroy the gloss, and is injurious to brushes.

It is better to begin housecleaning as early as possible, and then when it is over one has time to appreciate the delights of spring. But even while housecleaning, one can always take little sips of joy, as it were, from the cup of beauty and

wisdom that nature is forever holding out to us. The other morning I was washing windows. There was work to be done that day, any amount of it, and there were worries, any number of them, too; but at one window I rested and looked. It had rained the previous night, and for miles to the south the hills and valleys wound about each other, the long shadows of the trees stretching across them, and I thought of Wordsworth's lines:

"The hare is running races in her mirth,  
And with her feet she from the plashy earth  
Raises a mist that, glittering in the sun,  
Runs with her all the way wherever she doth run."

The woods were clad in tender greens and browns and ecrus and crimsons, with here and there a mass of white, and the red of the maple blossoms. The sky was flecked with soft, slow-moving cloudlets, and down in the hollow lay the pond, like a second sky, with the white ducks floating about on its surface. I felt like taking my paint-brush and sitting down to enjoyment, but those windows were to be cleaned, and there was churning, and ironing, and the chickens to chase out of the front yard, and a score of other diversions; and, in any case, as Ruskin says, "all art, even at its best, is but imitation, and can never be as true as nature." It was only a sip, but all the day was the sweeter for it.

CHRYSOLITE.

**Ingle Nook Chats.**

MY DEAR GUESTS,—

June, fair queen of all the months, has been ushered in with a glorious flood of song from myriad voices, and regally she holds her sway, crowned with Nature's most royal gift—the ruddy-hearted, balmy-breathed roses. A spirit of perfect enjoyment broods lovingly o'er the land, and all of poesy that in us lies wakens from latency into vigorous life, and although they may not find expression in never-dying verse, our very thoughts at such a time are poems of gratitude and praise. Spring has many ardent wooers, but the sweetest strain in every song is reserved for beautiful June—

"When the breeze which comes, seems a heavy breath  
From the lungs of the earth o'ergrown  
With the fairest things and the sweetest things  
That ever were seen or known."

I do not think it possible that any one could be a poet who did not love Nature in some of her various phases; certain it is that many of the most charming passages in the works of standard poets are descriptive of some of her wonderful works.

Since poetry—that of sun, sky and field—is the order of the day, let me present you with the following tiny bouquet culled by the way. The bud grew in James Russell Lowell's garden:

A week ago the sparrow was divine:  
The bluebird shifting his light load of song  
From post to post along the cheerless fence,  
Was as a rhymer ere the poet came;  
But now O rapture! Sunshine winged and voiced,  
Pipe blown through by the warm wild wind of the west,  
Shepherding his soft doves of fleecy clouds,  
Gladness of woods, skies, waters all in one,  
The bob-o-link has come, and, like the soul  
Of the sweet season vocal in a bird,  
Gurgles in ecstasy we know not what  
Save June, dear June! Now God be praised for June."

Celia Thaxter gives us this little spray:

"Hark, how sweet the thrushes sing!  
Hark, how clear the robins call!  
Chorus of the happy spring,  
Summer's madrigal!  
Storm the earth with odors sweet,  
O ye flowers that blaze in light!  
Crowd about June's shining feet,  
All ye blossoms bright,  
Shout ye waters, to the sun!  
Back are winter's fetters furled,  
Summer's glory is begun,  
Beauty holds the world."

The following flower is from a current journal:

"A new confusion burns the rose's cheek,  
Aglow with dimpled petal blushes pink;  
Love stirs the sleeping edges by the creek,  
And makes the heavy laurel buds to think  
Thoughts that are songs, unuttered to the ken  
Of all save such as, in the inviting hours,  
Can quit the noisy intercourse of men  
And listen to the language of the flowers."

It were easy to add buds and blossoms, but there!—I shall leave to each the greater pleasure of collecting for himself, only pausing to offer dear old Longfellow's prescription for the "blues":

"If thou art worn and hard beset  
With sorrows that thou wouldst forget,  
If thou wouldst learn a lesson that will keep  
Thy heart from fainting and thy soul from sleep,  
Go to the woods and hills! No tears  
Dim the bright look that Nature wears."

**OUR COMPETITION.**

I herewith announce a new contest certain to find favor with many of our readers. Prizes are offered for the three best sets of Memory Gems (selected quotations, either in prose or poetry), subject to rules given below. As the "gems" are not original work, we shall not make any age distinction, but shall give three prizes for the three best sets received. Each set must contain ten, and only ten, gems, but any contributor may send more than one set if desired. Each quotation should contain some beautiful or ennobling thought, and should be of a length that may be, without much trouble, committed to memory. The author's name should be affixed to each quotation, and the whole written on one side only of paper. This contest, No. XII., will be open until August 5th. Verne Rowell acknowledges receipt of prize, and is in the field again for No. X. Nothing like sticktoitiveness, is there, Verne? "Morag," I may be at the capital very soon, and shall try to obtain for you the desired information.

Very sincerely yours,  
THE HOSTESS.

Anyone can have a light step who will be at the pains to set the foot down right. In that lies all the difference between a thumping, lumping gait and the light tread that makes people call you "velvet-footed." The whole art and mystery lies in a single sentence—Put the ball of the foot down first, throwing the weight upon it and letting the heel come to the floor the hundredth part of a second after.

**Women in Agriculture.**

Perhaps amongst the many subjects brought up for discussion at the annual congress of the National Council of Women of Canada, lately held in London, all more or less of vital importance to the well-being of our country and of our homes, none created a deeper interest than those treated of at a crowded public meeting held in the large hall of the Normal School, on the evening of the 20th June, by Miss Fowler, of Winnipeg; Mrs. Jean Joy, Mrs. J. L. Hughes, and Mrs. Fitzgibbon, the latter better known, perhaps, under her pen name of Lally Barnard. Whether the subject was Domestic Science and Household Economics, or Agriculture and Horticulture, each speaker pleaded for definite training if adequate results of any real or permanent value could be hoped for. The manifest unfairness of expecting of our girls what is not expected of our boys, that they should know by intuition how to fulfil the duties of their future vocations, was very especially emphasized. The boy destined for mercantile career, as a necessity goes through a special course to prepare him for the same, and if he is to be a lawyer, a doctor, or a clergyman, it is recognized that he must spend several years in training for the chosen work of his life. Knowledge is power, upon the farm as it is in the counting-house, the office, or in the pulpit, and it was urged that a practical training in such branches of farm work, within doors and without, as falls naturally to the share of the farmer's wife and daughters would relieve them of much of their drudgery and foster a sense of the dignity of such labor in the minds of those whose tastes and inclinations may not have a natural bent in that direction. Tasks are easy, it was said, when we bring to their accomplishment knowledge and skill. Drudgery is the result usually of incompetence and inexperience. The present outlook is very encouraging for an increasing demand for produce which the skilled hands of the women of our farms could offer if they set their minds to the not unpleasant and certainly not unwomanly task of sending the best, and nothing but the best, to the markets now more freely opening up to them in the lighter departments of poultry and beekeeping, of the dairy and the garden. Mrs. Fitzgibbon in this connection said that "work done by women in close contact with nature must elevate and not unsex a woman; that the present feeling of restriction and monotony in farm life was due to want of training for such work, which, if scientifically carried out, would provide variety and interest greater than can be realized, besides serving to allay in the young daughter of the farm that spirit of unrest (but too often fostered by her mother, whose own ambitions have been laid aside long ago) which drives her to leave her home in the country to encounter many a bitter experience and to meet with many a disappointment in the city life for which she is equally unfitted.

Surely the farm is as wide a field for the realization of any wholesome ambition as can be found in any city, the wide world over, and here let me quote more directly from my notebook, and ask my readers to give their attention to what I culled for their benefit on the evening of the 20th instant.

Note No. 1 is from remarks made by Mrs. Fitzgibbon, who has made the subject a special study:

"What an extraordinary people we are, when one comes to think of it! Agriculture is the basic industry of Canada, and for over twenty years we have deliberately educated the people away from the soil, and it is only to-day that we are beginning to discover our mistake. The co-operative system will in the future lighten tremendously the 'drudgery' of the woman's life on the farm, and this may possibly make rural and agricultural life more popular with the up-growing men and women. The man who can hold what was formerly perishable farm products for a 'rise' will be able to hold his own with the middleman, and the 'by-products' of the farm will represent a larger percentage of profit. This too, it seems to me, opens up a great chance to intelligent, well-educated women to turn their energies, and possibly capital, to account in this field, and the growing demand for the 'special article' which can only be procured close to the locality where it is produced and under conditions which preclude its manufacture in large quantities."

Note No. 2 has this:—"There is a tremendous impetus given to all sorts of industries connected with the food supply by the increasing demand for pure hygienic foods, and people are beginning to inquire carefully into the conditions under which food is prepared. I was much struck, not many months ago, while in a country town, to hear a domestic in the house where I was staying refuse to eat any butter which did not come from her father's farm. On inquiring the reason, I was met with the startling explanation that she had seen enough of the conditions under which milk was kept and butter made in many houses to prevent her from touching this farm produce without knowing all about the buttermaker! This was a revelation, and one not likely to be forgotten."

My third and last note may not be new to the readers of the other pages of the ADVOCATE, but it may not be without a suggestive meaning for those to whom our Home Magazine is more especially addressed:

"From Siberia during the last year no less than 210,000 cwt. of butter, worth nearly one million pounds, was brought to England, and this excludes the large amount which came by way of Hamburg and Copenhagen. So important do the Russian authorities consider this export that they are

constructing special trains, with refrigerating cars, for the Siberian railway, and a new line of steamers has just been fitted out for the special purpose of carrying this class of produce from Riga and the Baltic direct to England. Some years ago the Russian Government sent Danish instructors among the peasants in western Siberia, and a large English firm is starting a dairy in central Russia this year, and so great is the output that much Russian butter comes into England via Denmark and Germany, labelled as coming from those two countries. Why does not Canada contrive to capture this butter industry? Is it because we as a nation dislike to learn new methods and to adapt our produce to the market now secured by Russia? We have a country as well suited for dairy produce as Siberia, and surely if the colonies, or branches of the Empire, as I believe we prefer to be called, would take the trouble, we could compete with the foreign produce in the motherland."

Now, what have the women of our farms to say to this? Will the intelligent women of Canada, who are as good buttermakers, if not better, than any in Russia, allow such an opportunity to pass them by?

H. A. B.

**Recipes.**

Rhubarb is one of the earliest things to make its appearance in the country gardens in springtime. In its crisp, tender stalks nature has distilled that peculiar acid which her children all demand at this season of the year. There are many excellent ways in which it may add a desirable touch to the family fare. The recipes given below are particularly choice:

**RHUBARB SAUCE.**—Cut the rhubarb into half-inch pieces, leaving the skin on. Put in a stewpan, and cover thickly with granulated sugar. Do not add any water; the juice from the rhubarb will soon flow. This is delicious.

**RHUBARB BLANCMANGE.**—Prepare rhubarb as for sauce, stew until in a pulp, sweeten, and thicken with corn-starch which has been dissolved in cold water. The amount of corn-starch used depends upon the juiciness of the rhubarb. Pour into moulds while hot. Serve when cold, with sweetened or whipped cream. This is very dainty.

**RHUBARB PUDDING.**—Place a large spoonful of stewed and sweetened rhubarb in small baking-cups. Pour boiling water on one pint of bread crumbs; when softened, drain if necessary, add one beaten egg, one tablespoonful of sugar, a little nutmeg, and beat well. Turn this upon the rhubarb in the cups, and bake. Serve with any pudding sauce.

**RHUBARB DESSERT.**—Make a rich syrup by adding sugar to water in which long strips of orange peel have been boiled until tender, place in it a single layer of pieces of rhubarb three inches long, and stew gently until clear. When done, remove, and cook another with puff paste cut in fancy shape.

**BAKED RHUBARB.**—Cut in pieces an inch long, put in a bake-dish in layers with an equal weight of sugar; cover closely, and bake.—*Chaperone Magazine.*

**A Garden of Long, Long Ago.**

BY ALICE CARY.

I can see long back in fancy, in kaleidoscopic view,  
Mid the circling disc of time-rings that my mind is gazing through  
A fairyland of beauty which my early childhood knew,  
Where the pinkest, sweetest flowers and the softest mosses grew.

The paths were stilly outlined by a bordering of box,  
The flower-beds flashed brightly with marigold and phlox,  
While the grapevines grew precisely, in a fashion orthodox,  
To evade the crafty cunning of each spoiling two-legg'd fox.

I can see the drooping pear-tree stooping low to touch the ground,  
And deposit ripened sweetness where it soonest could be found;  
While the honeybees grey heavy, as they circled round and round,  
And clapped their wings in soft applause, with hazy, happy sound.

The currants flushed to crimson 'neath the brightness of the sun,  
Until, all red and rosy, they shook their heads for fun,  
And tumbled off demurely in the green grass, one by one,  
To wait until the children adown the path would run.

And then—the very best of all—the merry little brook  
That dashed along and splashed along with circling curve and crook,  
Yet held its little mirrors where the lilies bent to look,  
And gave us tiny concerts from a natural music-book.

As I tell myself the story, my heart is all aglow  
With reverberating pleasures, that from the memory grow,  
So I write down glimpses of it, that others too may know  
The sweetness and completeness of the distant long ago.

**Where He Made His Mistake.**

One of the store windows down town displays an elaborate set of furniture of a style and arrangement that would be suitable either for a wedding-chamber or the sleeping-room of a wealthy bachelor. On a soft Turkish rug stands a richly-carved bedstead with a bed upon it seemingly ready for use, several fragile chairs with gilt frames, a big lounging chair, and a handsome dressing-case with a lofty mirror. Scattered about in picturesque confusion are many dainty bits of bric-a-brac.

A motley crowd stood in front of the window the other night, gazing admiringly at this picture of comfort. In the center of the crowd stood a big man with long flowing side whiskers. He was talking in a loud voice to a modest-looking woman who clung to his arm.

"It's wonderful how they get up things nowadays," the man was saying. "Why, when I was a boy no one would ever think of chipping out gilt, grooves and hollows in a good solid piece of walnut like that bedstead there, and nobody would dare to put gilt on a chair for fear of ruining his friend's clothes. And just look at the images! Them's downright deceitful. Anybody can tell that that cat over there wasn't real. Everything about her's so natural except her tail, which is too short. Nobody ever seen a regular live cat with a tail like that. It's honest to have it that way, though, for it shows the firm's trying to do business on a square basis, and ain't trying to deceive no one."

The big man's discourse came to a sudden end, for the cat rose to its feet, stretched itself lazily, and walked away.

A good-for-nothing fellow who used to dress like a sailor and did nothing but beg, came to the house of a lady who had the reputation of being very benevolent. He thought he would melt her heart with a rather clever dodge. Reaching the lawn in front of the window where the lady was sitting, he began eating the grass. Presently she came to the door and asked why he ate the grass. He replied, because he had nothing else to eat.

"Oh," said she, "my poor dear sailor man, come into the house," and leading him through the hall she took him to the back door, and opening it, remarked, "Go outside, you will find the grass longer there."

# Want a Good Watch?

WE have succeeded in procuring from one of the most reliable jewelers in Canada a complete list of Gents' and Ladies' Watches of sufficient variety to suit every one, and have no hesitation in recommending them to our readers as premiums worthy of an effort to secure. These are not by any means trashy goods, but first-class in every particular, and we assure you that you will be pleased with whatever of the above premiums you may obtain. Let us hear from you at an early date with a good list of new subscribers accompanied by the cash, and take your choice.

## Gents' Watches.

No.	Description	New Subscribers.
No. 1.	Yankee Nickel Watch	2
No. 2.	Trump Nickel Watch	4
No. 3.	Trump Gun Metal Watch	5
No. 4.	No. 14 Silver Watch	8
No. 5.	7 Jeweled Gent's Elgin in 3 oz. Nickel Case	10
No. 6.	7 Jeweled Gent's Elgin in Gun Metal Case	11
No. 7.	7 Jeweled Gent's Elgin in Sterling Silver Case	14
No. 8.	7 Jeweled Gent's Elgin in 20-year Filled Case	18
No. 9.	7 Jeweled Gent's Elgin in 25-year Filled Case	21
No. 10.	15 Jeweled Gent's Elgin in 3 oz. Nickel Case	15
No. 11.	15 Jeweled Gent's Elgin in Gun Metal Case	15
No. 12.	15 Jeweled Gent's Elgin in Sterling Silver Case	18
No. 13.	15 Jeweled Gent's Elgin in 20-year Filled Case	21
No. 14.	15 Jeweled Gent's Elgin in 25-year Filled Case	25

## Ladies' Watches.

No.	Description	New Subscribers.
No. 15.	Gun Metal Swiss Chatelaine	4
No. 16.	Sterling Silver Swiss Chatelaine	5
No. 17.	Nickel American O. F., large size	5
No. 18.	Gun Metal American O. F., large size	5
No. 19.	Nickel, small size	9
No. 20.	Gun Metal, small size	10
No. 21.	Sterling Silver, small size	10
No. 22.	7 Jeweled Elgin in 20-year Filled Hunting Case	20
No. 23.	7 Jeweled Elgin in 25-year Filled Hunting Case	22
No. 24.	15 Jeweled Elgin in 20-year Filled Hunting Case	23
No. 25.	15 Jeweled Elgin in 25-year Filled Hunting Case	25

## Description of Watches.

The accompanying cuts fairly well represent all the Ladies' and Gents' Watches, and a description of each as numbered is as follows:

**No. 1.** American Nickel Key-wind Boy's Watch that is absolutely guaranteed to keep good time and give satisfaction.

**No. 2.** Gent's Nickel American O. F. Watch; stem wind, and push-in stem and turn to set hands. This is a very strong, reliable Watch.

**No. 3.** Same as No. 2, excepting that it has Gun Metal case instead of Nickel case.

**No. 4.** Is a smaller-sized Gent's Watch, has sterling silver case, O. F. Screw Back and Bezel; stem wind, and push-in stem and turn to set hands. This is the lowest-priced and most reliable Boy's or small Gent's Silver Watch that is on the market.

**No. 5.** Is fitted with 7-Jeweled Nickel, first-quality Elgin movement. The case is a 3-oz. O. F. Nickel case; stem wind and set; screw back and bezel case.

**No. 6.** Same movement in Gun Metal or Black Steel screw back and bezel case.

**No. 7.** Same movement with Sterling Silver O. F. screw back and bezel case.

**No. 8.** Same movement in 20-year guaranteed Gold Filled O. F. screw back and bezel case.

**No. 9.** Same movement in 25-year guaranteed Gold Filled O. F. screw back and bezel case.

**Nos. 10, 11, 12, 13 and 14** are fitted in the same style of cases as Nos. 5, 6, 7, 8 and 9; the difference is in the movement, and the movement is 15-Jeweled Nickel, first-quality Elgin movement.

**No. 15.** Is a small-sized Swiss O. F. Gun Metal Chatelaine Watch.

**No. 16.** Is the same, only with Sterling Silver case, which can be had nicely engraved.

**Nos. 17 and 18** are a good-quality American Watch, O. F. stem wind, and push-in stem and turn to set hands. These are a little larger than the usual Ladies' Watches, and are smaller than the usual Boys' Watches, though can be used for either Boys, Girls or Young Ladies.

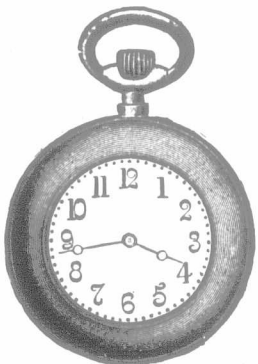
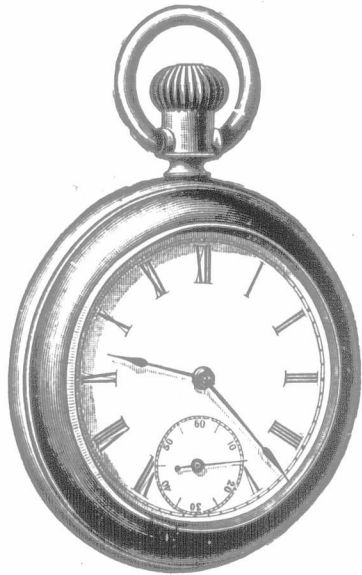
**Nos. 19, 20 and 21** are small sized; in fact, are the exact size of cut. These are American Watches, O. F. stem wind, and push-in stem and turn to set hands, and are first-class timekeepers. Will give perfect satisfaction.

If a nice leather wrist case is desired with these watches, send two extra subscribers.

**Nos. 22, 23, 24 and 25** are similar to the accompanying cut. These are regular Ladies' Hunting Watches. Nos. 22 and 24 are fitted in 20-year guaranteed Gold Filled cases, nicely ornamented, or to be had in plain or plain engine turned, and the same applies to Nos. 23 and 25, excepting that they are fitted in 25-year guaranteed Gold Filled cases, and 14k Gold Filled; 22 and 23 are fitted with 7-Jeweled Nickel, first-quality Elgin movements. Nos. 24 and 25 are fitted with 15-Jeweled Nickel, first-quality Elgin movements.

When making your choice of Watch as premium, be sure to mention its number as given in premium list, also whether Lady's or Gent's.

THE WILLIAM WELD CO., LTD., LONDON, ONT.



## GOSSIP.

### The Chicago Sale of Canadian Shortorns.

To state that the auction sale at Chicago, on June 5th, of Shortorns from the noted herds of Messrs. W. D. Flatt, Hamilton; H. Cargill & Son, Cargill; M. H. Cochrane, Hillhurst, and W. C. Edwards & Co., Rockland, was a great success, is to state it mildly. It was a success quite beyond the most sanguine of expectations. When on the previous day, at the same place, 44 head from the herd of Mr. Geo. E. Ward, of Iowa, brought the great average of \$725 each and a maximum price of \$2,500 for a cow and calf, it was generally thought that this result was largely due to a reciprocal feeling on the part of many breeders in the West who had held sales this season at which Mr. Ward had been a liberal buyer, and that they had agreed to help him out on the principle that one good turn deserves another. Whether there was anything in this or not, it is certain that Mr. Ward sold good cattle, a credit to any breeder, and while the Canadians present, and, doubtless, breeders generally, considered the offering of the second day a more valuable lot of animals, few, if any, had hopes of seeing the average of the first day equalled, but the sequel showed that the demand for good cattle is on a sound foundation, as there was no undue excitement and no sensational prices were made, but the uniformly good prices realized throughout, especially for the females, showed a healthy tone, not a single female selling for less than \$350. For some unaccountable reason, bulls do not sell at prices proportionate to those paid for females. It may be because the bulls are, as a rule, not as good as the females, but that is nothing new, and there were a few really good bulls in this offering, and yet \$825 for the Cargill bull, Fashion's Favorite, was the highest price scored for a male, and he is a grandly good one. There is, we believe, a feeling that good-enough bulls would bring higher prices than are being paid, but that sort seem to be scarcer than has been, and breeders need to make a special effort to produce more of them. The highest price realized in the Canadian contingent was \$1,910 for Mr. Flatt's Imp. Daisy 3rd, with bull calf at foot, while two other imported cows from the same herd, Victoria 67th, with heifer calf, and Golden Days, with bull calf at side, sold for \$1,500 and \$1,400, respectively, while five others of Mr. Flatt's females made from \$1,025 to \$1,310 each, with one exception having a calf at foot. The aggregate of the sale would doubtless have been considerably greater had the cows and calves been sold separately, as in several cases the calves were re-sold at from \$400 to \$600 each, and offers of similar prices were in a number of cases refused for the calves, but in that case the average, of course, would not have been so high, and as it was, the buyers had the advantage of the arrangement. The aggregate of \$44,900, and the general average for the 60 head sold of \$748.33, is a magnificent result, while Mr. Flatt's average of \$1,073 breaks the record of 18 years, and beats by \$280 his own record of \$793 at his last year's sale, which was considered a remarkable one. The enterprising Canadian breeders who made the venture of putting on the market such a valuable collection of cattle in such excellent breeding condition have done good work for the Dominion in bringing it again prominently before our neighbors and the world as a healthy breeding ground of high-class stock. The bidding throughout was very spirited, \$500 being no uncommon starting bid, while not a few were started at \$1,000, with \$100 bids following in quick succession. The sales presented an animated spectacle with five auctioneers shouting the bids from all parts of the arena to Col. Woods, the principal salesman in the stand, who, in stentorian tones, emphasized the advances, the whole performance reminding one of an exhibition of artillery-firing or of sharp-shooting on a skirmish line. The sale list in detail was as follows:

#### CONSIGNED BY W. D. FLATT.

##### Females.

Imp. Daisy 3rd; roan; calved January 8, 1898; and b. c.—James Watters, Mineral Point, Wis.	\$1,910
Imp. Victoria 67th; red and white; Oct. 19, 1893; and b. c.—Martin Flynn, Des Moines, Ia.	1,500
Imp. Golden Days 5th; roan; March 3, 1897; and b. c.—E. S. Cunningham, Martinsville, Ind.	1,400
Imp. Rosebud 2nd; red; April 11, 1897; and b. c.—George W. Ward, Iowa.	1,310
Imp. Violet 3rd; roan; April 18, 1898; and b. c.—H. F. Brown, Minneapolis, Minn.	1,305
Imp. Mayflower 5th; red; Feb. 1, 1897; and b. c.—Coffman Bros., German Valley, Ill.	1,290
Imp. Lady of the Boyne 5th; roan; April 10, 1898; and b. c.—T. E. Robson, Ilderton, Ont.	1,150
Imp. Vain Beauty; roan; March 7, 1900—E. W. Bowen, Delphi, Ind.	1,025
Imp. Markham, Mary; red; March 21, 1899—Randolph Bros. & Brown, Indianapolis, Ia.	975
Imp. Goldie 18th; roan; March 30, 1900—E. W. Bowen	905
Imp. Lady Fanny; roan; Feb. 2, 1900—A. Chrystal, Marshall, Mich.	800
Imp. Scotland's Sunshine; red; Jan. 28, 1900—E. S. Donahay, Newton, Ia.	715
Imp. Pauline 9th; roan; March 4, 1900—A. G. Leonard, Chicago, Ill.	700
Imp. Strawberry 7th; roan; Dec. 18, 1899—E. W. Bowen	700
Imp. Empress Augusta; roan; March 11, 1900—E. S. Donahay	500

#### CONSIGNED BY H. CARGILL & SON.

##### Females.

Imp. Myrtle; roan; March 30, 1898; and b. c.—A. Alexander, Morning Sun, Ia.	\$1,270
Imp. Meadow Perfection 2nd; roan; Jan. 1, 1899—Geo. M. Woody, Clyde, Ia.	900
Imp. Maud 8th; roan; March 2, 1898—Dawdy & Rydon, Abingdon, Ill.	930
Imp. Ruby of Brazil; roan; March 28, 1897; and b. c.—J. G. Withers, Mt. Pleasant, Ill.	825
Imp. Coral Countess; roan; March 12, 1898; and b. c.—E. S. Donahay, Newton, Ia.	755
Imp. Lohelia; red; Feb. 7, 1898; and b. c.—E. P. McAdoo, Indianapolis, Ia.	780
Imp. Clara 5th (imported in dam); roan; Feb. 25, 1900—Korn & Lee, Hartwick, Ia.	755
Imp. Daydream 5th; red, little white; April 21, 1898; and b. c.—Geo. M. Woody, Clyde, Ia.	715
Imp. Belladonna; roan; March 13, 1899—Korn & Lee	700

Imp. Leila; red and white; March 9, 1898; and b. c.—Shipman, Bradt & Gustenson, De Kalb, Ill.	\$ 600
Early Bud 5th; roan; Feb. 2, 1900—George M. Woody	400

##### Bulls.

Imp. Fashion's Favorite; roan; March 18, 1899—S. S. Shelby, Westport, Mo.	825
Scotch Pine (imported in dam); roan; March 22, 1900—H. Vanlandingham, Winchester, Ind.	500
Love's Heir (imported in dam); red; March 12, 1900—Wm. Scott, Grand Rapids, Wis.	430
Missie Champion (imported in dam); red; March 31, 1900—Shipman, Bradt & Gustenson, De Kalb, Ill.	350

#### CONSIGNED BY M. H. COCHRANE.

##### Females.

Imp. Mary Anne 7th; red; Jan. 1, 1899; and b. c.—T. H. Canfield, Lake Park, Minn.	\$1,280
Imp. Rosemary 131st; roan; March 18, 1899; and b. c.—A. G. Leonard, Chicago	810
Imported Byrthesome 23rd; roan; Feb. 12, 1899—C. C. Norton, Corning, Ia.	810
Imp. Agnes 7th; roan; April 30, 1899—Roy E. Cable, Phelps, Ill.	710
Imp. Consuelo 2nd; red; March 2, 1898—A. Chrystal, Marshall, Mich.	675
Imp. Fairy Maid 3rd; roan; April 30, 1899; and b. c.—W. I. Wood, Williamsport, O.	620
Imp. Clarinda 3rd; red; April 18, 1899—W. H. Neece, Macomb, Ill.	500
Imp. Carriation; roan; Feb. 23, 1899—F. P. McAdoo, Indianapolis, Ia.	535
Hillhurst Beauty (imp. in dam); roan; March 12, 1900—Chamberlain & Rosay, Beloit, Wis.	350

##### Bulls.

Scotch Blend; roan; July 23, 1900—J. P. Sandy, Liberty Center, Ia.	350
Hot Scotch; roan; May 11, 1900—A. E. Wehrlic, Naperville, Ill.	260

#### CONSIGNED BY W. C. EDWARDS & CO.

##### Females.

Imp. Flower Girl 11th; June 6th, 1899—A. Chrystal, Marshall, Mich.	\$ 900
Imp. Scottish Rose; red; Feb. 13, 1899; and b. c.—M. E. Jones, Williamsville, Ill.	825
Missie of Anoka; roan; Jan. 8, 1900—J. G. Withers, Milford, Ill.	735
Imp. Marigold 4th; roan; Jan. 23, 1900—Fred. Ayres, Athens, Ill.	700
Imported Minerva 2nd; red; April 30, 1899—M. E. Jones, Williamsville, Ill.	655
Rosette; roan; May 8, 1900—E. R. Stangland, Marathon, Ia.	650
Minnie Leslie; roan; Sept. 11, 1899—C. R. Steele, Ireton, Ia.	615
Trout Creek Lady; roan; April 23, 1899—A. G. Leonard, Chicago, Ill.	600
Imp. Ruby 29th; red; March 3, 1900—J. F. Prather, Williamsville, Ill.	600
Louise; red; March 19, 1899—J. D. Roger, Naperville, Ill.	595
Orinda of Pine Grove (imp. in dam); roan; March 16, 1900—Geo. M. Woody, Clyde, Ia.	505
Imp. Countess Cashmere; roan; Dec. 6, 1898—N. A. Lind, Rolfe, Ia.	505
Lovely Maid 2nd (imp. in dam); roan; April 9, 1900—E. R. Stangland, Marathon, Ia.	480
Mystic Maid (imp. in dam); red; March 11, 1900—Coffman Bros., German Valley, Ill.	410

##### Bulls.

Imp. Oxford King 2nd; red; April 12, 1899—Otto Bros. & Stevey, Clarinda, Ia.	610
Imp. Gustavus; red; June 24, 1900—P. N. Assegaard, Irene, S. D.	550
Imp. Scotch Minstrel; roan; March 30, 1899—B. Mitchell, Vail, Ia.	500
Imp. Galway; red; Feb. 17, 1900—L. Nelson, Centerville, S. D.	300
General Hutton; roan; Feb. 2, 1900—J. E. Francis, New Lenox, Ill.	180

#### W. D. FLATT'S SUMMARY.

15 females brought \$16,985; average \$1,073 00

#### H. CARGILL & SON'S SUMMARY.

11 females brought \$8,765; average \$796 81

4 bulls brought 2,105; average 526 25

15 animals brought 10,870; average 724 66

#### M. H. COCHRANE'S SUMMARY.

9 females brought \$6,380; average \$708 88

2 bulls brought 610; average 305 00

11 animals brought 6,990; average 635 45

#### W. C. EDWARDS & CO.'S SUMMARY.

14 females brought \$8,775; average \$628 78

5 bulls brought 2,179; average 435 80

19 animals brought 10,954; average 576 05

#### GENERAL SUMMARY.

49 females brought \$40,915; average \$816 63

11 bulls brought 4,885; average 444 09

60 animals brought 41,800; average 748 33

Among the Canadians present at the sales we noticed Hon. John Dryden, Minister of Agriculture for Ontario; J. Ira Flatt and W. D. Flatt, Hamilton; R. Gibson, Delaware; Jas. A. Cochrane, Compton; W. D. Cargill, Cargill; Capt. T. E. Robson, M. P. E., Ilderton; Arthur Johnston, Greenwood; A. W. Smith, Maple Lodge; H. Smith, Hay; W. G. Pettit, Freeman; John T. Gibson, Denfield; John Isaac, Markham; J. C. Snell, London; J. Flatt, Jas. Smith, Millgrove; N. F. Wilson, Cumberland; J. W. Barnett, Rockland; J. Clancy, Walkerton; John Mitchell, Nelson; Edward Robson, Markham.

## BOOK REVIEWS.

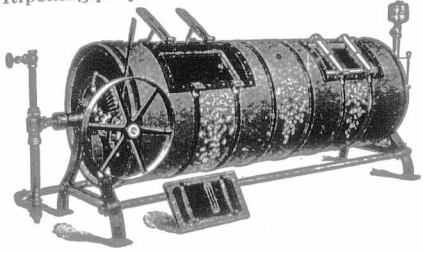
Any book reviewed in this department may be ordered through this office, at the price stated.

**Hampshire Down Flock Book.**—The Hampshire Down Sheep Breeders' Association of England has issued Flock Book Vol. 12, a copy of which has been sent us by their secretary, J. E. Rawlence, The Canal, Salisbury, Eng. The Hampshire is evidently a popular breed in Great Britain and Ireland, as the society representing it has a membership of about 350 persons. The present volume gives a list of these, also a list of past presidents, the by-laws of the association, and much other information in the interest of the breed. In it rams are registered numbering 3,704 to 4,173, and records are made of all flocks registered in subsequent volumes. The book is well prepared, and the price of the present number is fixed at 10s. 6d.



**PLEASE CONSIDER**

made from your milk supply. To do this you must have the best machinery, and operate it scientifically. In making your plans for this season do not overlook the Cream Ripening proposition.



The modern necessities of scientific buttermaking. If you are employing antiquated processes you cannot hope to meet the competition of the times. You must make the maximum quantity and quality of butter that can be made from your milk supply.

**The Farrington Cream Ripener**

is the machine that enables you to secure the maximum yield from your milk, and at the same time give it that fine aroma that is required to get the top price on a critical market. With this grade of butter you do not come into competition with "oleo" or "process." You will have and hold an exclusive market of your own. As we said at the start, **PLEASE CONSIDER.**

**BOILERS AND ENGINES. AUSTRALIAN BOXES. REFRIGERATING MACHINES. HANSON'S BUTTER AND CHEESE COLOR. RENNEN EXTRACTS. WELLS, RICHARDSON & CO.'S IMPROVED BUTTER COLOR. SPRUCE TUBS. STEAKS' STYLE SPRUCE TUBS. LUSTED PRINTERS. CLIMAX HEATERS. FARRINGTON RIPENERS. POTTS PASTEURIZERS. PARCHMENT PAPER, ETC.**

**Creamery Package Manufacturing Company, Limited, Cowansville, Quebec.**

**GOSSIP.**

Hon. F. G. M. Dechene, Commissioner of Agriculture for the Province of Quebec, has appointed Mr. Robt. Ness, of Howick, to make selections of live stock in that Province intended for the Pan-American Exposition. Transportation of accepted stock to and from Buffalo will be paid by Government. Application must be made, through Mr. Ness, to Mr. E. B. Elderkin, Superintendent Can. Live Stock.

The Northwest Territories will make an exhibit of live stock at the Pan-American at Buffalo. The exhibit will comprise 100 graded wethers, four carloads of steers—grade Galloways and Shorthorns. Horses will include a four-in-hand team of westerners, a carload of range horses, selected heavy draft, Coach and Hackney bred teams, some Thoroughbreds, cavalry chargers and gentlemen's saddle horses. The exhibit will be sold by auction as soon as the show is over. C. W. Peterson has the matter in charge.

Mr. John T. Gibson, Denfield, Ont., has recently purchased from H. Cargill & Son, Cargill, Ont., the imported roan 3-year-old Shorthorn cow, Clipper 2nd, and the roan 7-months-old heifer calf by the \$1,500 imported bull, Golden Drop Victor = 32065 = (76780). Clipper 2nd is of the favorite Cruickshank Clipper family, and was sired by Christmas Cup (70155), by Christmas Present (by the Brawley of the famous Princess Royal, by Champion of England. As the cow is again in calf to Golden Drop Victor, Mr. Gibson's purchase is a valuable one and an important acquisition to the Manor Farm herd.

**Western Agricultural College.**—In our issue of April 1st, 1901, under the heading "Proposed Western School of Agriculture," an extended reference was made to what is now termed "Western Agricultural College." It was then pointed out that the course of study will include correspondence, mathematics, bookkeeping, physics, chemistry, geology, botany, zoology, agriculture, drawing, and a few lectures on general topics. The principal, J. H. Smith, M. A., announces in our advertising columns in this issue that the college is in operation at Ridgeway, Elgin County, Ont. A card addressed to him, with a desire expressed for information concerning the institution, will be promptly attended to.

**The Waggoner Ladder.**—There are few farmers or householders but fully realize the awkwardness of handling the ordinary ladder used to reach the top of the barn, top of the house, or the highest fruit trees. It usually requires two men to carry, and about three to set it up, so that not infrequently work that should be done high up is neglected. The Waggoner ladder, made at London, Ont., possesses more desirable qualities than any other we have seen. It is constructed in sections, and can be extended to any reasonable length with the greatest ease. A 40-foot ladder can be easily carried and set up by one man. It is also extremely light, the side rails being carefully made of Norway pine, spruce or linden of the best obtainable quality. It is also very strong and stiff, by reason of the side rails being reinforced by heavy wires let into the backs. This ladder has to be seen and handled to be fully appreciated, but the pamphlets sent out by the manufacturers describe the ladder very fully. See their ad. in this issue.

**American Guernsey Cattle Club Meeting.**

The 24th annual meeting of the American Guernsey Cattle Club was held in New York, May 15th; President Codman in the chair. During the past year 1,753 transfers were recorded, and 886 bulls and 1,316 cows registered; membership, 143; receipts, \$8,058.35; expenditures, \$8,829.05 (\$3,611.13 of which was for salaries); balance on hand, \$1,081.21. It was decided to adopt an advanced registry, and Mr. Hill, of Wisconsin, and Secretary Caldwell were appointed a committee to perfect details. All milk and butter records, to insure publication, must equal or exceed the following schedule:

2-year	3-year	4-year	Aged
f.m., lb.	f.m., lb.	f.m., lb.	f.m., lb.
Year's milk record 6,000	7,000	8,500	10,000
Year's butter " 300	350	400	450
7-day " 14	15	16	18

The above yearly standards are based upon one complete year's record from the time of beginning, regardless of the time lost by cow being dry or calving during that period, should such be the case. In all records, the quantity of butter shall be estimated by adding one-sixth to the quantity of butter-fat found in the milk given—the per cent. of butter-fat to be determined by the Babcock test. Cows that made butter tests in 1900 and 1901 will be admitted to advanced register, if records meet all requirements.

The following officers were elected: President, James M. Codman, Brookline, Mass.; Vice-Presidents—A. J. Cassatt, Philadelphia, Pa.; Sidney Fisher-Knowlton, Can.; Secretary, Treasurer, Wm. H. Caldwell, Peterboro, N. H.; Executive Committee—Howard Tuttle, Naugatuck, Conn. (in place of E. N. Howell, Poughkeepsie, N. Y., resigned), and N. K. Fairbank, Chicago.

The dates on which entries of Canadian live stock for the Pan-American Exposition close are as follows: Swine, July 1st; cattle, July 15th; sheep, August 1st; horses, August 15th; poultry and pet stock, Sept. 16th; dogs, August 1st. Prize lists may be got from Mr. A. P. Westervelt, Toronto, Ont., or R. Ness, Howick, P. Q.

At Streetsville, Ont., on the C. P. R., a few miles north-east of Toronto, is the home of N. H. Switzer, a breeder of more than local fame, of high-class Shropshire sheep. This fine flock comprises some 45 breeding ewes of Mansell strain, an extra nice, large, well-covered lot. The youngsters are sired by the imported ram, Hammer 1302, he by Beam House ram is a Thomas-bred one and is a prizewinner, being extra large, perfectly moulded, on short legs, and covered from the ground up. He has left his image indelibly stamped on the youngsters. Another stock ram is Robinson's 135, sired by Parker's 184, dam Lander 107. He is also a big, slashing, square fellow, of true breed type. Among the old sires used on this flock are Robinson 87678, sired by King of Pride (imp.) 25449, dam Beattie's 19783. Another old sire was Pettit's 124531, sired by Hammer's 72332, dam Pettit's 65760. Among the really nice members of the flock are a number of yearlings that are hard to beat, and will certainly carry off their share of honors at the fall fairs. The large number of trophies to be seen at this farm testify louder than words to the quality of this flock. Mr. Switzer also makes a specialty of Barred Plymouth Rocks, where some extra nice birds can be seen. This season's chicks are from a cockerel bred by Wilson, of Oakville.

Pine Ridge Stock Farm, the well-appointed home of Wm. Willis, at Newmarket, Ont., maintains a large herd of St. Lambert-bred Jerseys. Mr. Willis has spared neither time, labor nor money to bring his favorite breed to a high standard of perfection, and judging from their extraordinary similarity, rich, even color, large size, well-formed udders, and royal pedigrees, one is impressed with the fact that he has more than succeeded. The sire at present used on the farm is Count of Pine Ridge 53962, sired by Queen's Count 4747, dam Juddy Broxy 12342. Juddy Broxy's dam was Adelaide of St. Lambert, whose record is 821 lbs. of milk in 24 hours. This cow that gave twice the weight of herself in milk in 30 days, and holds the world's record for a 30 days' milk trial. The grandsire of Count of Pine Ridge is Canada's John Bull 5th, one of the greatest Jersey sires this country ever produced. Among the cows on Mr. Willis' farm is Mina of Pine Ridge 138193, sired by King of Glen Duart 35749, dam St. Lambert's Florence 94462, a cow that gave 10,000 lbs. of milk in the milking season. Another dam is Pretty of Pine Ridge 132475, sired by King of Glen Duart 35749, dam Fulina of St. Lambert 94759. This cow is a very persistent milker, giving at present 20 lbs. a day, after milking a little over a year. Brietella of Pine Ridge is another model Jersey, sired by the noted 200 Per Cent., dam Honeymoon St. Helier 103730. Mr. Willis is offering for sale a very choice young bull, 1 year old, *Erlie of Pine Ridge*, sired by Cesar of Pine Ridge, dam Lena of Glen Rouge, who is out of St. Lambert's Diana, a first-prize winner. This bull is a top-notch, and one that will undoubtedly make his mark as a sire. There are also on the farm for sale three other bull calves, ranging in age from 6 to 8 months, all bred in the purple and solid color. Mr. Willis is also making a specialty of Barred Plymouth Rocks. The cockerel in use this year is imported from the famous Gardner flock, of Pennsylvania.

**SOME OLD-TIME RECORD SHORTHORN SALES.**

At the sale at Chicago, April 18, 1883, the following average was made:

	No. of head	Amount received	Average
R. Gibson	20	\$20,330	\$1,016
R. Huston	9	14,450	1,611
Total	29	\$34,780	\$1,199

In June, 1873, just 28 years ago, Mr. Richard Gibson made his record-breaking event (the New York Mills sale), and the history of cattle sales will probably never again chronicle such a success. It was the time when 110 head (all but two or three were of Bates breeding) sold for the prodigious sum of \$383,000, or an average of a trifle over \$3,482 per head. One cow, 8th Duchess of Geneva, sold for \$40,600, a price never equalled before nor since; 10th Duchess of Geneva sold for \$35,000, and another Duchess sold for \$32,000.

June 11 and 12, 1884, A. C. Hamilton held a two days' sale of Shorthorns at his farm near Lexington, Ky., at which an average of \$832.30 was made on 109 head.

In 1876 at Springfield, Ill., J. H. Kissinger sold 22 head for an average of \$1,152; and on May 25th of the same year, Col. Robert Holloway sold 63 head at Dexter Park, Chicago, for an average of \$1,087.

At Cochrane, Beattie & Hope's sale in Canada, 1876, Albert Crane paid \$21,000 and \$23,600, respectively, for Airdrie Duchesses 2nd and 3rd.

George Isaac & Bros., Bomanton, report the following sales of Shorthorns in addition to those reported in our last issue: To Mr. Ed. Robinson, Markham, Ont., one imported yearling bull, bred by Geo. Campbell, Harthill, of Cruickshank Secret family; one 2-year-old imported heifer of Cruickshank Orange Blossom, one 2-year-old imported heifer and bull calf of Kinellar Clementina family; one roan bull calf, imported, to Samuel Allin, Bowmanville, Ont., of Cruickshank Broadhooks family; one bull calf, imported, bred by Jas. Hay, Little Ythistle, Aberdeen, to Mr. Roseyear, Rosemeath, Ont. One imported roan bull calf, bred by T. A. Anderson, Ballochraggan, Alesch, Scotland, sired by Challenger (74199), dam Silver Gem, by Silver Star (73627), sold to John Taylor, Rockwood, Ont. We expect our next importation to arrive about midsummer.

Mr. Henry Dudding's annual auction sale of Shorthorn cattle and Lincoln sheep is announced to be held at his Riby Grove farm, Great Grimby, Lincolnshire, on August 7th. The herd of Shorthorns has an excellent reputation, selections from it having made a good record in prizewinning at leading English shows. High-class Scotch-bred bulls have been used for years, and have nicked well with the large, vigorous cows of the herd, combining weight with quality in the offspring. The Riby Grove Lincolns stand high in the ranks of the best of the breed, having won probably more first-class honors at the Royal and other principal shows in recent years than any other, and selling for the highest prices for the South American trade, which, being now withdrawn owing to a prohibitive embargo on the importation of British cattle and sheep, will leave the field for first-class specimens to North American buyers, who should secure some good bargains this year.

**THE OTTAWA EXHIBITION.**

The Canada Central Exhibition, to be held in Lansdowne Park, in the Capital City of the Dominion, Sept. 13th to 21st, this year promises to be of more than usual interest, even for an Ottawa event, which is saying a great deal, as the Ottawa Fair has the reputation of being one of the most enjoyable to visitors on the continent. The city itself and its surroundings are of surpassing interest, and the show is one of the best-conducted within our knowledge. The prize list and the special list of medals in many classes will form a great attraction to exhibitors, and the provisions for entertainment before the grand stand include an unusual display of military manoeuvres, which are among the most enjoyable of attractions. See the advertisement in this issue, and write the secretary for prize lists and information, or for their beautiful poster, which is one of the most attractive we have seen.

**LAST CALL FOR THE USHER SHORTHORN SALE.**

We remind farmers and cattle-breeders that Wednesday, June 19th, is the date of the dispersion sale of the herd of 70 registered Shorthorn cattle, the entire herd of Isaac Usher & Son, at Queenston, Ont., three miles from Niagara Falls by electric railway, which passes the Usher farm, historic ground, on which stands Brock's monument. Steamboats, leaving Toronto every two hours, call at Queenston, making a cheap trip, so that to attend the sale will be a pleasant and inexpensive outing. It is not expected that the cattle will sell at high prices, as they are only in ordinary breeding condition, but there should be bargains for buyers, as many of the cows will be sold with will have calves or have been bred to first-class bulls of popular breeding. The stock bulls which will be sold are very desirable ones, having proved the sires of superior stock, and the young bulls fit for service are nicely bred and a useful lot. The prospects for selling Shorthorns at good prices were never brighter than now, and everything points to good times continuing. The sale commences at 1 o'clock, and Capt. Robson will wield the hammer.

**HORSEMEN!—THE ONLY GENUINE IS GOMBAULT'S CAUSTIC BALSAM.**

None genuine without the signature of *The Lawrence Williams Co.* Sole Importers & Preparators for the U.S. & CANADA. CLEVELAND, O. The safest, Best BLISTER ever used. Takes the place of all liniments for mild or severe action. Removes all Bunches or Blemishes from Horses and Cattle. SUPERSEDES ALL CAUTERY or FIRING. Impossible to produce scar or blemish. Every bottle is warranted to give satisfaction. Price \$1.50 per bottle. Sold by Druggists, or sent by express, charges paid, with full directions for its use. Send for free descriptive circulars. THE LAWRENCE-WILLIAMS CO., Toronto, Ont.

**PLEASE MENTION FARMER'S ADVOCATE.**

**KEMP'S INSTANTANEOUS Sheep Dipping Fluid** kills ticks, lice and all parasites or insect life on sheep, hogs, horses, and cattle; destroys mange on dogs. The best dip in the market. Thorough, permanent, effectual. Cheapest and best disinfectant for surgical and medical purposes, barns and outhouses. Used in the proportion of 1 to 100. **ONLY RELIABLE CATTLE FLY KILLER.** If your druggist does not keep it, we will express a half-gallon tin (prepaid) to any address in Manitoba, B. C., or the Territories, for \$1.25. Elsewhere in the Dominion, \$1.00. **W. W. STEPHEN & CO., MEAFORD, ONT., AGENTS FOR THE DOMINION.**

**Binder Twine SEASON 1901.** "FARMERS' SPECIAL" binder twine supplied to Farmers Only at 8c. per lb., in two-bushel, cotton, 16-oz. grain bags, bound with two rope snap halters, and weighing 60 lbs. each, length over 500 feet per pound, quality and length guaranteed. Cash with orders; purchaser pays freight. Address orders: J. T. GILMOUR, Warden, Central Prison, Toronto. Further particulars address JAMES NIXON, Inspector Parliament Buildings, Toronto. J. R. STRATTON, Toronto, June 8th, 1901. Provincial Secretary.

**Massey-Harris Mowers.**—The bundles of orders which have been sent in by the agents to the head office at Toronto speak for the popularity of these excellent grass cutting machines in Ontario. The Massey-Harris new No. 7 mower, which was first introduced to the trade last season, was declared on every hand to be a great success. Among the many new features embodied in this new machine are: New foot lift, new draft attachment, splendid range of tilt, hollow steel pitman, V-shaped coupling-bar. The gearing is very simple and powerful, and roller and ball bearings have been scientifically applied wherever friction and wear are likely to occur. The farmer who has his order with Massey-Harris Co. for one of their new No. 7 mowers is making no mistake—Advt.

H. J. Davis, Woodstock, Ont., writes: "I recently sold four very fine Shorthorn females to Mr. Leck, of East Oxford. In the lot was the dairy Shorthorn cow, Mistletoe 5th, a winner in the provincial dairy test, 1899. Also a Shorthorn bull to Thos. Hart, Innerkip, and one to Murray Bros., West Zorra.

**W. E. WRIGHT'S SHROPSHIRE, CHESTERS, AND TURKEYS.**

The stock barns of W. E. Wright, Glanworth, Ont., have become quite inadequate for the conduct of his operations with Shropshire sheep and Chester White swine, but this contingency is being met by having a cement concrete basement built beneath the entire barns, which are over 100 feet long. This work was in operation at the time of our visit early in June, when we found the stock in first-rate condition. The 64 head of pure-bred Shropshires and the few grade Shrops. and Shropshire and Leicester wethers and ewes for fat-stock show purposes were pasturing in a luxuriant mixture of grasses and clovers. The lamb crop of 25 from 16 ewes, and the good ram, Prince 11623, by Adcote Premier (imp.), are uniformly well covered and colored. They were not lambed early, but they have gone forward well, and are now well advanced. Mr. Wright's flock was established 15 years ago with imported ewes, and since then only first-rate rams have done service. Occasional additions of strictly A 1 imported ewes have been introduced, so that with Mr. Wright's wise care the flock has developed quality as it grew in numbers. The shearing stock, including 15 ewes and 13 rams, is choice throughout. They were sired by Wattle 113,142, sired by Newton Stamp, imported, a prizewinner at London Western Fair last year. Mr. Wright's showing experience proves him to be a master of the shepherd's craft, as he has won good premiums, more particularly in fat classes, at New York, Chicago, and at the Provincial Fat Stock Shows.

The Chester White herd includes three of as fine brood sows as we have seen for a long time. They are litter sisters to the pair that won first at the 1900 Provincial Fat Stock Show in the export bacon class for Chesters. They have thrifty litters, ready to ship, from Glanworth Prince 1843, a particularly smooth hog, bred by R. H. Harding, Thorndale, Ont. Mr. Wright has made a name for himself in the poultry shows with his Mammoth Bronze and White Holland turkeys. His stock Bronze gobbler weighed last fall 42 pounds, and won 1st at Toronto and 2nd at London exhibitions. The flock includes 10 beautiful hens of this breed and three White Hollands. Young birds were coming out well at the beginning of June.

Laidlaw's  
Concentrated  
Tobacco  
Powder



Sheep  
Dip.

Contains correct proportion of sulphur, all mixed and ready for bath. For thirty years Laidlaw's Tobacco Powder Dip has had steadily increasing sale. Many hundred millions of sheep have been dipped with it. Non-poisonous; no injury possible to sheep or wool. For full particulars and prices, write—

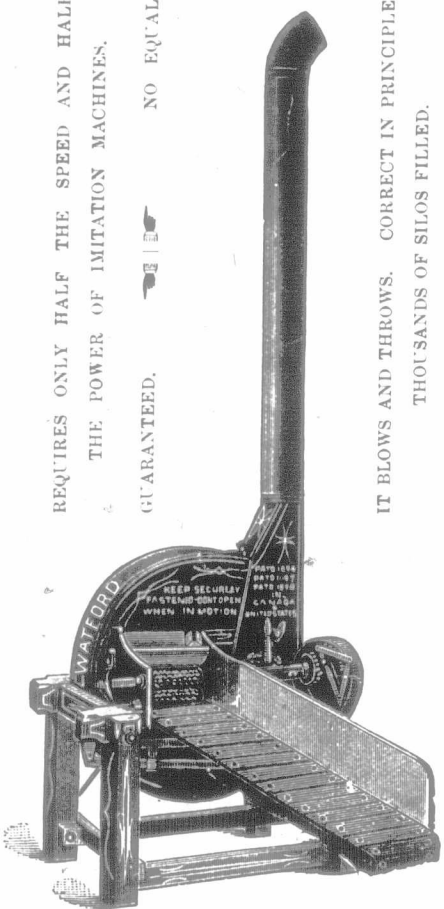
ROBERT MARR, WALKERTON, ONT.  
Sole manufacturers: Laidlaw, Mackill & Co., Limited, Richmond, Va.

SHROPSHIRE.

FOR SALE: Yearlings of both sexes—extra good ones. Also this season's crop of lambs.

N. H. Switzer, Streetsville, Ont., Peel Co.

REQUIRES ONLY HALF THE SPEED AND HALF THE POWER OF IMITATION MACHINES.  
GUARANTEED.  
IT BLOWS AND THROWS CORRECT IN PRINCIPLE.  
THOUSANDS OF SILOS FILLED.



Canada leads the world with THOM'S PATENT ENSILAGE CUTTERS. In five sizes. Capacity 5 to 20 tons per hour. Furnished with or without travelling table. Send for testimonials.

THOM'S IMPLEMENT WORKS,  
Established 1876. WATFORD, ONT.

GOSSIP.

MORE MONEY FOR REMOUNTS.

In the British House of Commons an additional vote of £15,779,000 has been made for transports and army remounts. More horses will be wanted from Canada. Mr. Brodrick, the War Secretary, said the War Office paid for horses in England £12, in Canada £30, and in Australia, the United States and Hungary, from £20 to £25. During the debate, Sir Blundell Maple (Conservative) asserted that British officers who had been sent to Hungary and Austria had purchased broken-down animals at extravagant prices, and divided with the sellers the price charged the British Government above the actual cost. He demanded the appointment of a committee of inquiry. Lord Stanley, Financial Secretary of War Office, said an inquiry would be made in the matter, and he believed that the accusations of corruption brought against British officers would be disproved.

PRIZEWINNING SHEEP AT NOTTINGHAM.  
At the Nottingham County Show, May 28th and 29th, the following awards were made in the Lincoln class: Shearling ram 1 S. E. Dean & Sons; 2 Tom Caswell; 3 H. Dudding; reserve, Dean & Sons. Shearling ewes 1 and 3 Dudding; 2 & highly commended, Dean & Sons. Shropshires—Shearling ram 1 and 3 Bernard Wall; 2 P. L. Mills; reserve and highly commended, R. P. Cooper (2), W. F. Inge (2); highly commended, Mrs. Barr; commended, J. Harding. Shearling ewes—1 R. P. Cooper; 2 P. L. Mills; 3 W. F. Inge; reserve, B. Wall; highly commended, Mrs. Barr.

PIGS AT NOTTINGHAM.  
Following are the awards at the Nottingham Show the last week in May:  
Yorkshires—Three breeding pigs of the same litter, farrowed 1901—1 and 2 D. R. Daybell; 3 S. Spencer; reserve, P. L. Mills. Boars under one year—1 Nottingham Corporation; 2 and reserve, P. L. Mills; 3 S. Spencer. Boars above one year—1 John Barron; 2 and 3 S. Spencer; reserve, P. L. Mills. Sows—1 and 2 D. R. Daybell; 3 S. Spencer; reserve, A. Armitage.  
Berkshires—Three breeding pigs of the same litter, farrowed 1901—1 P. L. Mills; 2 Sir H. F. de Trafford; 3 Earl of Carnarvon. Boars under one year—1 Sir H. F. de Trafford; 2 Earl of Carnarvon; 3 J. Jefferson. Boars over one year—1 Earl of Carnarvon; 2 reserve and commended, J. Jefferson; 3 Sir H. F. de Trafford. Sows 1, 2, and very highly commended, J. Jefferson; 3 and very highly commended, Sir H. F. de Trafford; reserve, Earl of Carnarvon.

GOSSIP.

The prospect is that the International Live Stock Show to be held in Chicago, November 30 to December 7, will be the greatest show of the kind ever projected in America. The management of the Union Stock Yards, of Chicago, is more than doubling the building capacity for the exposition, and will have the carcass contest and display on Dexter Park grounds, so that all of the Exposition will be together. Canadian breeders will, it is believed, make a much more extensive showing than they did last year, and the best of the United States studs, herds and flocks will be represented, and cheap railway rates from Canada as well as the United States will be secured.

Mrs. E. M. Jones, Brockville, Ont., writes of her favorite Jerseys: "Pressure of family cares renders it almost impossible to keep up my immense correspondence and then find time to report sales, which have been most satisfactory, thanks to the ADVOCATE. I sold a young cow, which has since dropped her second calf, and owner writes me that she made in one week 10½ lbs. of butter, in cold, wet weather. If anything else but grass was fed, he did not mention it. The dam of this cow, 5 years old, milked for me last night 22 lbs. at one milking. I sold her bull calf as soon as born, for \$35. To same purchaser a lovely golden-fawn heifer calf, a week old, at \$50. To Mr. Hurst, Carman, Man., a 6-months-old heifer that I will back against anything in the Northwest. Her show of udder is phenomenal. Owner is delighted; no wonder. To a gentleman in Vermont, U.S., just sent another. I will report a number of sales to you later on, and will soon advertise some fine horses that are hard to beat."

W. G. Pettit & Son, Freeman, Ont., report the following sales of Shorthorn cattle since last October: Nineteen bulls, imported and home-bred, and 30 imported and home-bred cows and heifers. These have gone to the following Provinces and States: Ontario, Quebec, Manitoba, Nova Scotia, Indiana, Iowa, Illinois, Michigan, Kentucky, Pennsylvania, and South America. The South Americans are now looking to this country for their supply of good bulls, and the breeders of this country should be prepared to supply the demand. They want good, large bulls of good quality, from 2 to 4 years old, and in prime condition. They want the best, and are prepared to pay good prices for them. We have now on hand and for sale 20 choice 2- and 3-year-old imported heifers, from three to six months gone in calf to our best imported bulls. A large number of them were bred to Imp. Pure Gold, the bull we sold at a long price to go to South America. The young calves we have from him are very promising. We have a nice bunch of home-bred heifers, nearly all bred to Pure Gold. We have six young imported bulls, old enough for service and good enough to be valuable herd bulls. If we get this South American trade in bulls, good ones will be much higher than they have been in this country. See change of advertisement on page 417.

THE ARGENTINE CATTLE TRADE.

A meeting of breeders of pure-bred cattle of the beef breeds was held at the Transit House, Union Stock Yards, Chicago, on June 14th, for the purpose of considering the best means to adopt with a view to cultivating the Argentine market for pure-bred bulls. After discussion, a resolution was adopted, favoring the appointment of one or more delegates to visit the Republic, to make enquiry into the possibilities of the trade, to disseminate information, and to invite the stockmen of that country to attend the fall shows of stock in the United States and Canada, at the expense of the live-stock associations. A resolution was also passed, authorizing the executive committees of the various associations to select a representative to visit South America for the purpose indicated. During the discussion, a suggestion which met with the favor of many breeders was that the British dealers who had been prosecuting this trade before the embargo was imposed, and who understand all the requirements, should, if possible, be induced to open the trade, as, indeed, they have already done to the extent of one shipment of bulls by Messrs. Nelson, of Liverpool, and Bruce, of Dublin, as reported in our last issue, and which, it is hoped, will be so successful that it may be followed by others.

GEO. E. WARD'S SHORTHORN SALE—DEATH OF THE CHAMPION BULL, ST. VALENTINE.

A grand success was the sale at Chicago, on June 14th, of 11 head of Shorthorns from the herd of Mr. George E. Ward, of Sioux City, Iowa, when the handsome sum of \$31,500 was realized for the number above named, an average price of \$725 each. The highest price in the sale, \$2,500, was paid by Randolph Bros. & Brown, Indianola, Iowa, for the red 3-year-old cow, Duchess of Gloster 31th, by Gowrie, with her roan bull calf by St. Valentine, and she in calf again to the same sire. Nine other females sold at prices ranging from \$1,000 to \$1,700. The highest price for a bull was \$725, for Mary's Valentine, a red 14-months son of St. Valentine, and of the Young Mary family. An interesting feature in this sale to Canadian breeders was that a very large proportion of the animals were the offspring of the noted Canadian-bred bull, St. Valentine 121014, whose breeding was a mixture of Scotch and Booth blood, and who was bred by the Messrs. Gardhouse, of Highfield, Ont., sired by Imp. Guardsman, and out of Verbena's Lady, by Imp. Reporter. St. Valentine's dam, bred by Messrs. Gardhouse, was a yearling heifer in the show herd of Messrs. Robbins & Son, of Indiana, which won the \$1,000 grand sweepstakes herd prize for the best bull and four females of any beef breed at the World's Fair at Chicago in 1883, and was at that time carrying her first calf, the future champion bull of America, Saint Valentine, who proved not only a first-class show bull, but also a first-class sire, as the uniformly good quality of his get in Mr. Ward's herd amply evidenced. The death of St. Valentine from stone in the bladder, at the age of 7 years, was announced at the opening of the sale, and as he had met with an accident last fall, having sprained a stifle and become incapacitated for service for several months, the calves in sight were among the last of his get likely to be available. This circumstance, together with the grand character of his calves, gave a special value to them, so that in several cases from \$100 to \$500 each was offered for calves of his a few months old, being sold with their dams. Such offers, some of which were accepted and others refused, added greatly to the prices realized for the lot.

The Walkerton Binder Twine Co., LIMITED.

THE WALKERTON BINDER TWINE CO., Limited, is composed of 5,527 of the most progressive farmers of Ontario, 95 per cent. of the stock being owned and controlled by them.

We are manufacturing a superior article of Binder Twine, and selling it at the lowest possible price. Our grades are Canadian Sheaf, Bruce, and Saugeen, the prices for which are 9½c., 10½c., and 11¼c. per lb., delivered at the customer's nearest station. All accounts are payable by the 1st October, and those who prefer to pay cash on delivery will be allowed an additional ¼c. per lb. off. These prices and terms are exceptionally favorable, and it is expected that our friends, and all others who want an article that they can depend upon in the harvest field, where the true test is made, will place their orders early. If there is no authorized agent in your locality, order from us direct.

REMEMBER that this is a CO-OPERATIVE COMPANY, and that any profits that may accrue will be distributed among the shareholders, who are nearly all "tillers of the soil." There are no speculators to gobble up the profits in The Walkerton Binder Twine Co., Limited.

We ask you to give us a trial, confident that the result will be satisfactory, and lead to extended business with you in future years.

WE ARE HERE TO STAY,

and it would be folly for us to expect your patronage unless we give you entire satisfaction. When ordering your twine for this season's use, don't forget that we have the best and finest plant in Canada, and that we are turning out a very superior article at a small margin over the cost of production.

All enquiries will be promptly and cheerfully attended to, as we are always glad to give information to our friends and patrons.

We expect to be able to fill all orders in ample time for harvest; but, in order to prevent possible disappointment, we would urge you to send in your order as early a date as possible.

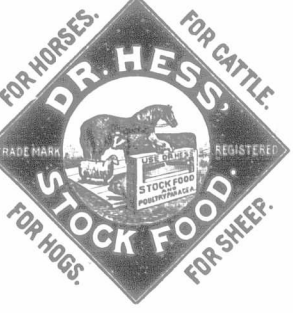
THE WALKERTON BINDER TWINE CO., LTD.  
JAMES TOLTON, SECRETARY-TREASURER,  
WALKERTON, ONTARIO.

Your Fire is Good

"Sunshine" furnaces do not require incessant attention to keep them burning. If, in the rush of the morning and evening chores, the furnace happens to be overlooked, you can count on a "Sunshine" retaining fire three or four hours longer than the ordinary furnace. Burns coal, coke or wood. The only specially-made farm furnace in Canada. Descriptive pamphlets free.

The McClary Manuf'g Co'y.

London, Toronto, Montreal, Winnipeg, Vancouver; St. John, N. B.



DR. HESS' STOCK FOOD

It makes the animals eat well, do well and pay well. It produces that sleek, glossy coat that commands the fancy price. Is a Guaranteed Flesh Producer. 7 LB. SACK, 65c.; 12 LB. SACK, \$1.00. Sold by dealers generally, or Address: THE ORBIG MFG. CO., Canadian Agents, MONTREAL. For two-cent stamp we will mail you our 64-page veterinary book.

Address: DR. HESS & CLARK, ASHLAND, O., U. S. A. IN WRITING Please Mention the Farmer's Advocate.

**GOSSIP.**

The Shropshire flock of Geo. B. Phin, Hespeler, Ont., was established 20 years ago with first-rate, well-bred stock, and has been kept up with good care, wise selection of rams, and occasional additions of choice ewes. The flock is now in A 1 form and fit to select from for show and breeding purposes. See advertisement in this issue.

See advertisement of F. L. Green, Greenwood, Ont., in this issue, of Jersey cattle and Yorkshire pigs. He has a very choice herd of Jerseys, and furnished the Government with Queen Mary of Teanwood for the Pan-American dairy test, where she is doing excellent work. He writes, saying he has others just as good, and a daughter of Queen Mary's, who promises to surpass her. He has also some choice Yorkshire pigs. Anyone wishing to get Jerseys or Yorkshire pigs would do well to write him for prices, etc.

Mr. Dugald McDonald, Kinloss, Ont., writes that he has recently sold to Wm. Worthy, Bervie, Ont., the 12-months-old Shorthorn bull, Young Prince of Orange, a calf of much promise, sired by Orange Duke = 28872 =, bred by the Duke of Richmond and Gordon, and imported by H. Cargill & Son. Young Prince of Orange is half-brother to Imp. Orange Chief, sold at the Flat sale in Chicago in 1900 for \$15,510, and his dam is an excellent cow, sired by Perfection, a son of the famous champion bull, Barnpton Hero. Mr. Worthy has fine cattle, and is always successful in winning first prizes at the local fairs.

We have received from the Secretary-Treasurer of the American Aberdeen-Angus Cattle Breeders' Association, Mr. Thomas McFarlane, Harvey, Ill., a copy of Volume XI. of their Record, containing entries from 37,001 to 41,500. It is a very complete, substantially-bound and handsomely-printed work, which does the Association great credit. The frontispiece is a group of 15 high-grade 2-year-old Angus steers, bred and fed by H. Kerrick, of Bloomington, Ill., and sold at \$15.50 per cwt., said to be the highest price ever paid for a carload of cattle on any market. There is also a portrait, by Lou Burk, of Advance, the world's champion Angus steer at the last Chicago International Show. He was bred by B. K. Pierce, and after the show sold for \$2,145, or \$150 per cwt., the highest price beef steer ever sold.

Allin Bros., of Lakeview Farm, near Oshawa, Ont., have for over 20 years been engaged in the breeding of high-class Shorthorn cattle. Among their earlier dams was the roan Cruickshank, Duchess of Gloster 12th, sired by Athelstane 7th 6522, dam Duchess of Gloster, by Red Duke 3888. She was a deep, heavy, short-legged animal, and her progeny have inherited those qualities of conformation. Another excellent dam was Duchess of Gloster 15th, of the same tribe, sired by Imp. Duke of Albany 47709, a Cruickshank-bred bull, dam Duchess of Gloster 12th. A very pretty, well-balanced cow is Strawberry, imported by W. D. Platt, sired by Roscommon 71406, dam Matilda, by Locksley 62849. This cow is of the Miss Ramsden family, that has produced so many prizewinners, including Challenge Cup, Royal Winner, Brave Archer, etc. The stock bull at present in use is *Quarantine King*, so named on account of being born in quarantine, having been imported in dam. He is sired by Wrestler 65582, a grandly-bred Wimple bull, dam King's Magic 4th. Quarantine King is a perfect model of the up-to-date Shorthorn. Among the young bulls are three really good yearlings: Lord Kitchener, sired by Arthur Johnston's imported stock bull, since sold for \$500, dam Duchess of Gloster 34th, by Grand Sweep (imp.). Lord Roberts, another yearling, is sired by Grand Sweep, dam Duchess of Gloster 24th, by Duke of Lavender 51135 (imp.). General Buller 36802 is a very choice yearling, sired by Bonnie Lad 25927, by Imp. Blue Ribbon and of the Kinellar Bessie tribe, dam Susie Logan 19760, by Duke of Lavender. These yearlings are now offered for sale, and are well worth looking after, being choice animals of famous Cruickshank families.

WM. SMITH'S CLYDESDALES AND SHORTHORNS.  
Mr. Wm. Smith, of Columbus, Ont., is one of the pioneer breeders and importers of Clydesdale horses and Shorthorn cattle, and throughout the long years Mr. Smith has been associated with the pure-bred stock industry, he has only had the one object in view: to breed the best possible from the best procurable. In Clydesdales, Mr. Smith has imported a large number, both stallions and mares, and his present stock, which includes some very choice heavy animals, are all from imported animals. The imp. mare, Glenbow Jennie 212, bred by Mrs. Sturdy, of Drawdykes Castle, Eng., sired by Scotsman 126, dam Lochend Champion, has left some really extra good produce. A very nice, smooth 2-year-old filly is Glenbow Jennie 4th, sired by Granite 1913, dam Glenbow Jennie 3rd, by Pride of Perth 282. This filly's equals are few indeed. Another good one is Newbie Jean 3rd, sired by Sir Arthur 6292, dam Newbie Jean 2nd, out of Imp. Newbie Jean. This mare is a massive, well-proportioned, smooth animal. The first at present used by Mr. Smith is the imp. stallion, Royal Cairnton 10875, bred by Robert Turner, Cairnton, Scotland. He is sired by Royal Standard 9847, dam May Montrose 13646, and traces back to the blood of the famous sires, Prince of Wales and Darnley. This horse has only been shown twice in this country, at Toronto and Ottawa, winning first at both places, and will likely compete for honors at Buffalo this year. He is a large, growthy fellow, with the best of feet and legs, the action of a Hackney, and is as smooth as silk. He is owned by the Columbus Clydesdale Association, of which Mr. Smith is president.

In Shorthorns, Mr. Smith's herd is founded on the Isabella and Mina families, and are from such imported sires as the Duke of Albany, Duke of Lavender, Lord Roseberry, Bright Light, etc. The present sire is Royal Bruce 26018, sired by Royal Member (imp.), dam Imp. Rosalind. Royal Bruce belongs to the famous Cruickshank and Campbell tribe of Nonpareils. He is an extremely long, deep, massive fellow, weighing some 2,400 lbs. His calves are an exceptionally fine lot, testifying to the correctness of that old law of breeding, that "like begets like." Among Mr. Smith's earlier dams was Wedding Gift 8354, bred by Lord Polwarth, Mertoun House, St. Boswells, Berwickshire, Scotland. The breeding dams are of the present up-to-date type: broad, deep, massive, on short, well-placed legs, of the best quality of bone.

**Chicago Sheep Shearing Machine**



1901 Model  
Stewart's Pat.  
**Price \$15**

Guaranteed to shear any kind of wool that grows. All gears cut from the solid metal and hardened.

BOOK ON SHEARING just published. Finely illustrated, with valuable hints for fast and easy shearing by R. M. Marquis, champion of the world, will be sent free to any sheep owner on application. Address: CHICAGO FLEXIBLE SHAFT CO. 158-160 Huron Street, Chicago, Ills.

**BIG CROPS OF BIG POTATOES**

result from applying about 100 lbs. of NITRATE OF SODA

per acre just after the potatoes are well up. Then, too, the potatoes are smoother and more salable. Insures a profitable crop. Our books tell about its use on potatoes, and the profits produced. Send for free copies before you plant, to John A. Myers, 12- Q John St., New York. Nitrate for sale by fertilizer dealers everywhere.

Write at once for List of Dealers.

**British Columbia.**

Anyone thinking of farming in British Columbia should write for descriptive pamphlet of farms for sale in the Lower Fraser Valley—the garden spot of the Province.

We have compiled the largest and most complete list of farms, orchards, cattle-grazing and garden lands, and fishermen's attentions, in the Province. It has been very carefully selected, and we have a personal knowledge of every property described. Prices range from \$3.00 per acre to \$250.00 per acre, and in extent from 1 acre to 1,000 acres. In the Lower Fraser Valley, and on the coast lands around Vancouver, we rarely have more than a month of frost and snow at outside, and the thermometer has only sunk to zero twice in ten years.

WRITE

HOPE, GRAVELEY & CO.,

536 Hastings St. VANCOUVER, B. C.

THE WAGGONER LADDER CO.

(LIMITED),

Manufacturers of the celebrated

**Waggoner**

**Extension**

**Ladder**

FOR GENERAL FARM USE.

The lightest, strongest and handiest ladder in the market. The only really satisfactory extension ladder made. Reliable, durable, handsome, cheap. Made in all lengths. Also extension Step Ladders. Descriptive catalogue free. Mention this paper.

FACTORY: 403-409 YORK STREET.

HEAD OFFICE: 367 RICHMOND STREET.

LONDON, ONT.

**Western Agricultural College**

RIDGETOWN, ONT.

Farmers' sons who are desirous of securing a good practical training in BUSINESS METHODS and in AGRICULTURAL SCIENCE should take a course in this college. Circular and information on application to

J. H. SMITH, M. A., PRIN.

Mr. D. G. Ganton, of Elmvale, Ont., is one of the rising breeders of Canada, and one who is bound to make his mark. For some years Mr. Ganton has given a great deal of attention to the breeding of Shropshire sheep, and by starting right, having founded on the noted Monarch strain, and used nothing but the best possible sires, he has to-day a flock of which he is justly proud, and which contains some very extra specimens of the Shropshire breed. This year's crop of lambs, some fifty odd, are a credit, not only to Mr. Ganton's judgment in the selection of a sire, but to the sire as well. The stock ram at present employed is Mansell's 4th, imp., 717, sired by Fortification 9498; dam Fair Star 5177. Mansell's 4th was bred by A. E. Mansell, Harrington Hall, England, and imported by Mr. Robert Miller, Stouffville. Mr. Ganton is also breeding some extra nice Yorkshires. His present stock boar is Oak Lodge King David 5693, sired by Oak Lodge Royal King, imp., 3044; dam Oak Lodge Clara 12th 3136. Oak Lodge King David is a model of the long, deep, bacon type, and coupled with such breeding sows as are to be seen on the farm, very happy results can be expected. Mr. Ganton is also making a showing of some very nice Shorthorn cattle, which will be making it interesting at the fall fairs. On this farm can also be seen some extra Scotch collie dogs, also B. Plymouth Rock chickens.

**MAPLEWOOD HACKNEY STUD.**

PROPERTY OF FREDERICK C. STEVENS, ATTICA, NEW YORK.

**Champions of two continents.**

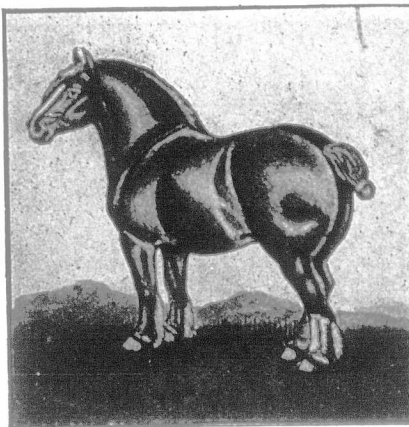
The magnificent LANGTON PERFORMER, the peerless CLIFTON 2nd, and the sensational FANDANGO, all in service for the coming season.

Magnificent young Stallions and Mares for Foundation Stock,

sired by the above champions, and out of mares equally famous, now offered for sale. MAPLEWOOD is truly "THE HOME OF THE CHAMPIONS."

FOR FURTHER PARTICULARS, ADDRESS:

**E. T. Gay, Manager, Attica, N. Y.**



LATELY IMPORTED A FRESH LOT OF

**Glydesdale Stallions,**

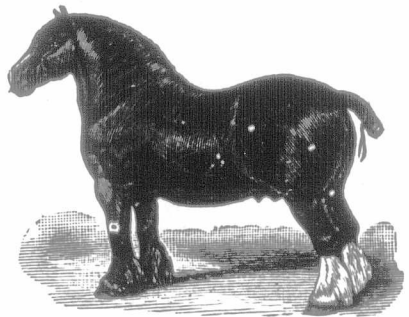
Comprising sons and grandsons of many of the most noted Scotch showyard winners and sires, all in the pink of condition without surplus flesh, and personally selected to meet the best Canadian markets, having, without exception, the best of bone, hair, feet, and action, coupled with true Clyde character. I will make further importations as the demand. Inspection invited. Prices consistent with quality.

ROBERT GRAHAM,

Ringwood P. O., Ont.

Stouffville Station, G. T. R., and telegraph office.

**CLYDESDALE STALLIONS ALL SOLD.**



Our importations are always

WELL-BRED BIG GOOD ONES.

The winner for two years at the Canadian Horse Show, Toronto, was imported by us. Early in July we will ship for Great Britain for a new lot, and will earnestly endeavor to make satisfactory selections of mares and stallions for persons who will inform us just what they want.

DALGETY BROS.,

London, Ontario.

**Instant Louse Killer**



**INSTANT LOUSE KILLER Kills Lice**

kills lice on stock and poultry, sheep ticks, bugs on cucumber, squash and melon vines, cabbage worms, slugs on rose bushes, etc.

Can be used on eatable plants with perfect safety.

Put up in round cans with perforated top; convenient and economical.

Price, 35c.

GUARANTEED.

Sold by Dealers Generally, or Address:

**The GREIG MFG. CO., Canadian Agts, MONTREAL**

"Good crops or poor crops, which shall it be for 1901?"

**Freeman's Fertilizers.**

ONE TO FOUR TONS PER YEAR.

North Oxford, Ont.  
To W. A. FREEMAN & Co., Hamilton, Ont.:  
DEAR SIR,—Having used from ONE TO FOUR TONS per year of your SURE GROWTH FERTILIZER for wheat, oats, corn and mangels, for the last six years, with good success, I also find it an excellent thing for seeding down with, and can heartily recommend it to any person who wishes to make farming a success.  
I remain, Yours respectfully,  
(Signed) GEORGE RAYMOND.

CAN TELL TO A DRILL MARK WHERE IT WAS USED.

WM. ARMSTRONG, Locust Hill:—"Purchased one of your SURE GROWTH Fertilizers last spring. Used it on barley and corn, and can see to a drill mark where it was used, especially in the barley, it being stronger growth and will ripen some days before the part of the field where none was used. I am pleased to place my order for one ton more."

**THE W. A. FREEMAN CO., LTD.,**  
Catalogue and Price List on Application. HAMILTON, ONTARIO.

# Winnipeg's Industrial EXHIBITION,

## JULY 29 TO AUGUST 2, 1901.

LIVE STOCK,  
AGRICULTURAL  
AND  
INDUSTRIAL  
PRODUCTS.



RACES,  
PLATFORM  
ATTRAC-TIONS  
AND  
PYROTECH-NICAL  
DISPLAY.

EDUCATION, IMMIGRATION, BUSINESS, PLEASURE.

# The People's Carnival.

For Prize Lists, Programmes, and all Information, Apply to

**F. W. THOMPSON,**  
PRESIDENT.

**F. W. HEUBACH,**  
GENERAL MANAGER.

WINNIPEG, MANITOBA.

JUN  
Y  
of M  
4 mile  
of G.  
Teas  
favor  
very  
dams.  
of gre  
body  
go to  
such  
The  
5071, 1  
and a  
point  
bred.  
sters  
ers o  
him,  
deal  
Mr.  
R. R.  
choic  
rams.  
These  
true  
and f  
breed  
crop  
offer  
being  
Swan  
winn  
which  
needs  
make  
Advc  
tion  
secti  
prove  
const  
of fin  
looki  
impro  
A v  
Walk  
symm  
Short  
tical  
famil  
ing t  
body  
Short  
is He  
bon;  
by G  
self t  
thing  
flesh  
short  
of th  
dian  
activ  
sheep  
flock.  
Ma  
of M  
on ac  
been  
horns  
Clyde  
The  
Wils  
mare  
sired  
trace  
the s  
Styl  
Erk  
King  
flat b  
actio  
years  
can b  
sale.  
sired  
Gran  
ones  
but s  
is fo  
consi  
of th  
the  
2708  
is lea  
Col  
than  
won  
Gros  
his f  
of A  
has  
the  
and  
mon  
best  
Mr.  
Can  
His  
spec  
this  
spar  
the  
a vi  
boar  
true  
his s  
sired  
Imp  
sows  
dam  
is F  
4675  
leng  
of B  
Maic  
quer  
Stell  
by C  
dam  
the  
be f  
man  
has  
sen  
buy  
men  
grou  
Vice  
Imp  
es  
ink  
sup  
mor  
hor  
to d

**GOSSIP.**

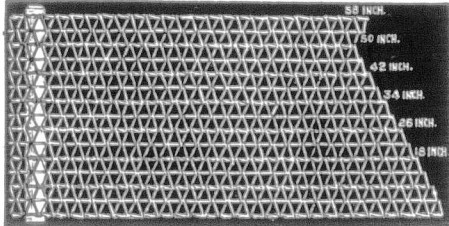
Yorkshire hogs are the particular speciality of Mr. Wm. Teasdale, of Dollar P. O., some 4 miles from Thornhill, Ont., on northern branch of G. T. R., some 15 miles from Toronto. Mr. Teasdale has paid particular attention to this favorite breed for a number of years, being very careful in the selection of both sires and dams, and as a result his stock has the merit of great length, combined with great depth of body and narrow top of shoulder, all of which go to make up the ideal bacon hog which is in such demand and so popular with the packers. The present stock hog is *Oak Lodge Prince 5071*, bred from imported stock. He is an ideal and all that could be desired from the packer's point of view. The dams are also fashionable bred. Mr. Teasdale has a number of youngsters on hand for sale, and intending purchasers cannot go wrong to communicate with him, on whom they may depend for square dealing.

Mr. Joseph Ferguson, of Uxbridge P. O. and R. R. station, is offering for sale three very choice and richly-bred Cotswold yearling rams, sired by imported Swanwick Lad 104. These rams are large, square fellows, of the true Cotswold type, carrying elegant fleeces, and from their perfect conformation and rich breeding should find ready sale. This season's crop of lambs, which Mr. Ferguson will soon offer for sale, are an exceptionally fine lot, being sired by Zephyr Lad, dams sired by Swanwick Lad 104. Swanwick Lad was a winner at the Royal Show, England, an honor which speaks plainly of his individuality and needs no commending. Mr. Ferguson, who makes his first bow as an advertiser in the *Advocate*, has made more than a local reputation as a breeder of Cotswolds, and living in a section in which this breed of sheep has proved remarkably successful, showing strong constitution and a uniform class of fleeces, full of fine quality and luster, his flock is worth looking into by those looking for good sheep to improve their flocks.

A visit to the farm of Mr. Jas. Tolton, near Walkerton, Ont., will be enjoyed by lovers of symmetrically-shaped and fashionably-bred Shorthorn cattle. Mr. Tolton's cows are practically all of the Lorinda and Lady Jane families, and are a particularly nice lot, showing the great length, depth and thickness of body and short legs which are so essential in Shorthorns to-day. Mr. Tolton's present sire is *Heir of Hope 22886*, sired by Imp. Blue Ribbon; dam Imp. Cleopatra, a Kinellar Claret, by Gravesend. Heir of Hope has proven himself to be a sire of the right kind, as the young things in the herd show. He is a blocky, thick-fleshed fellow, nicely proportioned, on the shortest kind of legs. Mr. Tolton, who is one of the most enterprising and reliable of Canadian breeders, reports sales good and demand active for both Shorthorns and Oxford Down sheep, of which he maintains a high-class flock, bred from best importations.

Maple Leaf Stock Farm, the beautiful home of Mr. C. Groat, near Brooklin, Ont., is famous on account of the extra quality of stock that has been bred there, including Clydesdales, Shorthorns, Cotswolds, and Tamworths. Mr. Groat's Clydesdales are all bred from imported stock. The mare, Velvet, imported by the late T. Wilson, was a heavy, smooth, well-proportioned mare, with splendid feet and legs. She was sired by Trade Mark 3269, dam Abbess 5110, and traced back to Lord Clyde. A grand horse is the stallion, *Erskine King 2506*, sired by Erskine Style 2121, he by Erskine (imp.). The dam of Erskine King is Velvet (imp.) 1728. Erskine King is a horse of great substance, with clean, flat bone and a perfect foot, showing splendid action. He is bay in color, weighs 1,850 lbs., is 5 years old, a prizewinner, and his get are all that can be desired. This horse will shortly be for sale. A particularly nice filly is the 2-year-old sired by Granite, he by the famous stock horse, Granite City. A number of other really good ones to be seen on this farm deserve mention, but space forbids. Mr. Groat's Shorthorn herd is founded on the Meadowflower family, and consists of some 17 head, some of which are of the Cruickshank Duchess of Gloster strain, the youngsters being sired by Lord Klondike 27008, a very massive, well-balanced bull, that is leaving the right kind of stock. Mr. Groat's Cotswolds need no further recommendation than a look over the numerous prize trophies won at the leading shows. In Tamworths, Mr. Groat is a leader, having years ago purchased his foundation stock from the late John Bell, of Amber, from imported stock, and throughout has used as both sires and dams nothing but the best and purest blood money could procure, and the numerous prizes won are their testimony of quality. In fowls, nothing but the best strains of B. P. Rocks are kept.

Mr. S. Dymont, of Barrie, Ont., is one of Canada's leading breeders of Berkshire hogs. His pens are the home of some of the finest specimens of that popular breed to be found on this continent. Neither time nor money is spared in the effort to excel, and at present the breeding sires and dams are well worth a visit to see. Allendale Boy 5875, the stock boar, is an extra fine one: large, long, and of the true bacon type. He shows himself to be what his stock proves him to be—an ideal sire. He is sired by Courtmaster, dam Belle of Milton, by Imp. Star One. Among the several fine brood sows is Georgina 6116, by Major Graham 3279, dam Oxford Beauty 4337. Another very nice sow is Favoretta 6114, sired by King Highclere 5th 4675, dam Acote 5630. Mariana 6115 is a very lengthy, smooth sow, sired by Star 2902, dam Nell of Bow Park 4679. Another very pretty sow is Maid of Maple Grove 2nd 7688, sired by Conqueror 5348, dam Maid of Maple Grove 3839. Stella Craig 7689, another choice one, is sired by Conqueror 5348, dam Mary Craig 5308. These dams, with others on the farm, compose one of the choicest aggregations of Berkshire sows to be found in the country, and their produce command ready sale. In Shorthorns, Mr. Dymont has some 50 odd head. Among them are to be seen some of the choicest animals money would buy. Aberdeen Jock, the stock bull, is an immensely big, square animal, almost down to the ground. He is sired by Aberdeen, dam by Imp. Vice Consul. A very extra yearling bull is Imperial, sired by Sir Adolphe, dam Oro Duchess. This youngster will make things interesting at the fall shows. The cows are a very superior lot, and it would be hard to find a more even or better-developed herd of Shorthorns individually, while their breeding is up to date in every respect.



**MILLIONS OF ACRES** fenced with them this year. The fences that grow more popular every season. Real saving, service and satisfaction in **Ellwood Steel Wire Fences** Fully guaranteed. Best steel and galvanizing. If you can't find our local agent write to American Steel & Wire Co., Chicago or New York.

**Clydesdales--Hackneys.**



A Few Choice Yearlings of Either Breed can be spared.

**WEIMPORT** bred, and develop the highest class of stock from the best studs in Scotland, Canada, and the United States. Clydesdales headed by Lord Charming and Prince D. Leettable; Hackneys headed by Square Shot.

**D. & O. SORBY,** GUELPH, ONT.

**WM. SMITH, COLUMBUS, ONT.,** IMPORTER AND BREEDER OF

**Clydesdale Horses & Shorthorn Cattle**

**W. G. HOWDEN, COLUMBUS, ONT.,** BREEDER OF

**CLYDESDALE HORSES, SHORTHORN CATTLE**

**Wm. Brash, Ashburn, Ont.,** BREEDER OF

**CLYDESDALE HORSES and SHORTHORN CATTLE.**

**NEWTON'S HEAVE, COUGH, DIS-TEMPER & INDIGESTION CURE**



Newton Horse Remedy Co. (D), Toledo, O. Trade supplied by Lyman Bros. & Co., Toronto.

**Clydesdales and Ayrshires** Imported and home-bred. Also Dorset Horned sheep, and the leading varieties of poultry.

**ROBERT NESS & SONS, Howick, Que.**

**4 Imp. Clydesdale Stallions** From such well-known sires as Sir Everard (5353), Prince Roberts 7135, Prince Alexander 8899.

**2 Imp. Shorthorn Bulls,** 4 Bulls Imp. in Dams, 2 Canadian bred Bulls.

**21 Imp. Cows and Heifers,** 7 Canadian-bred Cows and Heifers.

**GEO. ISAAC & BROS., BOMANTON, ONT.,** COBOURG STATION, G. T. R.

**FOR SALE.** CLYDESDALE stallions, mares and fillies, representing the best blood in Scotland—Prince of Wales, Darnly, Macgregor and Lord Lyon—including the great sweepstakes winner, The Marquis (1182), a grandson of Prince of Wales and Macgregor; also the first-prize 3-year-old at Ottawa this season.

**THOS. GOOD,** Richmond P. O., Ont.

R. R. Station, Stittsville, C.P.R.

**FOR SALE:** Clydesdales and Shorthorns.

Young stallions and fillies bred from imported sires and dams. Also a choice bunch of Shorthorns, of both sexes and all ages, including a few extra choice young red and roan heifers and bulls.

**JOHN BRIGHT,** Myrtle, Ontario.

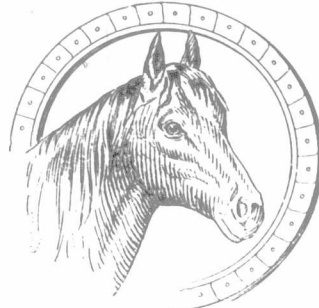
**THE CELEBRATED IMPORTED CLYDE STALLION,**

**Brown Lawrence,**

Is standing at his own stable, Lot 14, Con. 3, London, "Norwood Farm."

**C. J. MILLS, LONDON, ONT.**

**IT PAYS TO ADVERTISE IN THE FARMER'S ADVOCATE.**



We beg to call your attention to a new and indispensable article in

**Barclay's Patent Attachment**

FOR THE CURE OF BALKING AND KICKING HORSES.

Will control any vice known to a horse. Invaluable for breaking in colts. Can be adjusted in two minutes, and used with any harness, vehicle or implement. Sent, charges paid, to any part of Canada, with full directions for use, on receipt of price, \$5. Reliable representatives wanted. For further information, address

**THE BARCLAY MFG. CO., Brougham, Ont.**

- 6 imp. Bulls, 14 months to 2 years.
- 20 imp. Heifers, 2 and 3 years old. Safe in calf.
- 2 Home-bred Bulls, 12 and 16 months old.
- 10 Home-bred Heifers, Scotch topped.
- 25 Choice Yearling Ewes, from imp. Ram.

Our imp. cattle are representatives of the following Scotch families: Claret, Glara's, Beautys, Marr Roan Ladys, Urya, Orange Blossoms, Secrets, Matildas, Miss Ramsdens, Jilte, Floras, Annes, Lady Fragrants, and others. Burlington Junction, G.T.R., is our station. Telegraph and telephone office within half a mile of the farm. Catalogues on application.

**W. G. PETTIT & SON, Freeman P. O., Ontario.**

**QUEENSTON CEMENT.**

The demand for our cement in 1900 justified us in adding largely to the capacity of our cement works. The indications are that this year's business will be still greater. We start the new century with an equipment which for the manufacture of natural rock cement is not excelled in America.

We shall be glad to assist you in making plans for new farm buildings or for remodelling old ones. Our experience should be of value to you. It will pay you to investigate our system of ventilation.

Write us for prices or for estimate of cost of any kind of concrete work.

**Isaac Usher, Proprietor, QUEENSTON, ONT.**

**J. & W. B. Watt, SALEM, ONT.,** BREEDERS OF

Clydesdale horses, Scotch Shorthorn cattle, Leicester and Oxford sheep, Berkshire pigs. Our SHORTHORN herd was founded over 30 years ago, and contains such tribes as the *Village Buds*, *Matchless*, *Missies*, *Mildreds*, *Stamfords* and *English Lady*, upon which we have employed such bulls as *Barnpton Hero 324*, *Young Abbotsburn 6236*, *Challenge 2933*, *Perfection 9100*, *Lord Lansdowne (imp.) 2712*, *Clan Stuart 14381*, *Canada 19536*, *Sitlyton Chief 17060*, *Royal Sailor (imp.) 18959*, *Royal George 28513*, *Clipper King 16293* and *Judge 23419*, all of which have been first-prize winners wherever shown. *Royal Victor 34681* and *Royal Wonder 34682*, by *Royal Sailor (imp.)*, and out of English Lady and Mildred dams, now head the herd, assisted by *Roan Cloud 31317*, by *Lord Gloster 26995*, and out of *Melody 21992*, a descendant of the Buckingham family. We are now offering young bulls, cows and heifers for sale, of Scotch type.

Farm 2 miles from Elora Station, G. T. R. and C. P. R., 15 miles north of Guelph.

**HILLHURST SHORTHORNS**

THREE COLLYNIE-BRED BULLS IN SERVICE: *Scottish Hero*, *Joy of Morning*, *Scottish Beau*, By *Scottish Archer*. By *Pride of Morning*. By *Silver Plate*.

The herd comprises straight Scotch, Cumberland, Gloucestershire, and Canadian strains; bred to produce the best and most economical MEAT and MILK MAKERS.

**Shropshire and Hampshire Down Sheep.**

**M. H. COCHRANE, COMPTON CO., P. Q.,** G.T.R., 117 MILES EAST OF MONTREAL. HILLHURST STATION.

**Rapids Farm Ayrshires.**

REINFORCED BY A RECENT IMPORTATION of 20 cows, 2 bulls, and a number of calves, selected from noted Scotch herds, and including the male and female champions at leading Scottish shows this year. Representatives of this herd won the first herd prize at the exhibitions at—

Toronto, London, and Ottawa, in 1900.

Come and see or write for prices. Young Bulls and Heifers for Sale, bred from High-class Imported Stock.

**Robert Hunter, Manager** for W. W. Ogilvie Co., Lachine Rapids, Quebec.

GOSSIP.

F. Bonycastle & Son, Campbellford, Ont., breeders of Shorthorns and Cotswolds, write: "We have an extra good lot of bull calves, short-legged, blocky fellows. Let me know if anyone will be round before our time expires; if not, what is your price for an inch space."

At Martin Flynn's twenty-third annual Shorthorn sale, at Des Moines, Iowa, May 23rd, the highest price (\$1,035) was paid by H. F. Brown, Minneapolis, for the 3-year-old cow, Minnie Benson 3rd, bred by David Birrell, Greenwood, Ont., sired by imp. Clan Campbell, and of the Mara family. As an evidence of the rising values of Shorthorns in the last two years, it may be mentioned that this heifer was sold at Mr. Birrell's sale in March, 1900, for \$170; at Mr. Platt's Chicago sale in August the same year for \$475, and Mr. Flynn's sale in May this year, with a heifer calf at foot, for \$1,035. Gem of Gloster, a red 4-year-old Duchess of Gloster cow, bred by Harry Smith, Hay, Ont., and sired by Abbotsford, brought the second highest price, \$1,000.

A RECORD HEREFORD SALE.

At a combination sale of Hereford cattle, held at Chicago, May 21st and 22nd, 98 head sold for an average of \$343, and the record price of \$5,000 for a Hereford cow was scored by the sale of the 8-year-old Dolly 2nd, bred and contributed by Mr. John Hooker, New London, Ohio, and purchased by Mr. N. W. Bowen, Delphi, Ind., who not only took Dolly 2nd and her heifer calf at foot for the price above quoted, but also Belle of Maplewood at \$1,900, and three other cows at \$1,000 each, and one at \$800. Imp. Sparkle brought \$825, and the highest price for a bull was \$1,200, for Ike, a 3-year-old, sired by Nutshell, and bought by Wm. George, Aurora, Ill.

NOTICES.

Is All Right for Splint.

Vonn, Ill., Feb. 10, 1901.  
I used GOMBAULT'S CAUSTIC BALSAM on a horse last spring for splint and it proved all right.  
WM. REUTECKE.

**Civic Improvement.**—The annual convention of the National League of Improvement Associations will be held August 12, 13, 14 and 15, 1901. The sessions of the first three days will be held in the banquet hall of the City Convention Home, Buffalo, N. Y. The last day's session will be at Lake Chautauque, N. Y. Both in the range of the topics covered and in the character of the talent which will be presented, the convention promises to be memorable. All persons interested in civic improvement should attend the convention, and give it the widest possible publicity among their friends.

**Cure for Lice on Cows.**—DEAR EDITOR,—I see by May 15th FARMER'S ADVOCATE that Mr. Dawson desires to learn how to cure his cows of lice. If he will apply crude petroleum to them, that will settle the lice and do the cows no harm. Crude petroleum, applied along the backs and sides of all the cattle three or four times during the summer and when they are housed in the fall, will rid them of all lice, and prevent warbles, that appear as large grubs beneath the skin during the winter. For lice in the poultry house, there is nothing more effective than to spray the inside of the house thoroughly with crude petroleum. It can be had in small or large quantities from McCall & Reilly, Petrolia, Ont.

**The Queenston Cement Works.**—The widely-known firm of Isaac Usher & Sons, Queenston, Ont., has been dissolved. Mr. Hudson Usher retiring to devote his attention to agriculture and live-stock rearing; Mr. Isaac Usher, founder and head of the company, continuing in sole charge of the rapidly increasing cement business. A new system of bolting has been put in and several new kilns opened, increasing the output capacity to 450 barrels per day. The cement now being turned out is considered to be the best ever made in the works. The demand this year exceeds by far that of all previous seasons, and notwithstanding the improved facilities for manufacture, the supply falls far short of the orders. Further extensions and improvements are being planned for the coming year. From the foregoing it will be seen how necessary it is for persons desiring cement to forward their orders at the earliest date possible.

**An Expanding Enterprise.**—We were pleased to notice, on a recent visit, the great changes now in process in connection with the works of the Ontario Wind Engine & Pump Co., Toronto, manufacturers of the well-known "Airmotor." They erected during the winter a large new galvanizing building, 112x32 ft., and have installed in it one of the largest galvanizing plants in Canada, and capable of not only doing their own work, but also to take care of extensive and important work for outside requirements. They have also installed a new cupola of the most modern type, and are therefore in a position to do all their work in connection with the manufacture of the "Airmotor" from the beginning to completion. They are now building a very large extension to the main factory, 100x12 ft., three stories and basement, fully equipped with a large quantity of new machinery and all modern appliances for the comfort of the employees and rapid execution of orders. It will enable them to fully handle their expanding business, as they have heretofore found great difficulty in keeping pace with their orders. In addition to the above, they have installed some very fine electric motors, and are also having the works lit by electricity, so that when this building is completed it will in many respects be without its parallel in Canada. Not only has their Canadian but also their foreign trade been steadily growing, and recently they shipped a windmill destined for the South Pole, something which no other windmill manufacturer can boast of. This Company is determined to take care of a big share of the windmill trade in Canada, with all its branches, and our readers can depend on the goods being turned out by this Company up to the mark in every respect. They have also added to their extensive business the fanning mill, having purchased the entire business and plant of the Toronto Grain and Seed Cleaner and Grader Manufacturing Co., and this mill will be pushed by them, as it is the very best to-day on the Canadian market.

PLEASE MENTION FARMER'S ADVOCATE.

A FEW FACTS

About the New Catarrh Cure.

The new Catarrh Cure is a new departure in so-called catarrh cures, because it actually cures, and is not simply a temporary relief.

The new Catarrh Cure is not a salve, ointment, powder nor liquid, but a pleasant-tasting tablet, containing the best specifics for catarrh, in a concentrated, convenient form.

The old style of catarrh salves and ointments are greasy, dirty and inconvenient at the best; the new preparation, being in tablet form, is always clean and convenient.

The new Catarrh Cure is superior to catarrh powders because it is a notorious fact that many catarrh powders contain cocaine.

The new Catarrh Cure is called Stuart's Catarrh Tablets, a wholesome combination of bloodroot, beechwood tar, guaiacol, and other antiseptics, and cures by its action upon the blood and mucous membrane, the only rational treatment for catarrhal trouble.

You do not have to draw upon your imagination to discover what you are getting benefit from Stuart's Catarrh Tablets; improvements and relief are apparent from the first tablet taken.

All druggists sell and recommend them. They cost but 50 cents for full-sized packages, and any catarrh sufferer who has wasted time and money on sprays, salves and powders will appreciate to the full the merit of Stuart's Catarrh Tablets.—Advt. om-

**Live Stock Labels**  
Send for circular and price list.  
R. W. James, Bowmanville, Ont.



WOODSTOCK STEEL WINDMILLS

Galvanized or painted.  
For Power or Pumping.  
The **DANDY** Windmill  
with Graphite Bearings, runs easy and controls itself in the storm.  
**GRINDERS, PUMPS, WATER TANKS, DRINKING BASINS, AND SAW BENCHES.**  
WOODSTOCK WIND-MOTOR CO., WOODSTOCK, ONT. (Ltd.)



Standard Sheep Dip (OIL OF TAR.)

Non-poisonous, cheap and effective. Destroys Scab, Lice, Ticks, Foot Rot, etc.  
Write for Testimonials and Circulars.  
Manufacturers: The West Chemical Company, TORONTO, ONT.  
For Contagious Abortion use West's Fluid.

**90 HEAD** High quality, Early-maturing **Herefords** Prizewinners, Young bulls, cows, heifers.  
The blood of "Corrector," "Eureka," "Ancient Briton," and "Rupert," on an "Anxiety" foundation. Send for illustrated catalogue.  
**H. D. SMITH, COMPTON, QUE.**



**BONNIE BURN STOCK FARM** 40 rods north of Stouffville Station, Ont., offers two strong, lusty **SHORTHORN BULLS**, fit for service. Also two year-old heifers with calf. Shropshire sheep all ages and kind.  
**D. H. RUSSELL, Stouffville, Ont.**

**For Sale** Two choicely-bred **SHORTHORN BULLS**, 12 and 18 months; also cows and heifers, with calves at foot and bred again to imported Red Duke 36984 (77385). 51 head to select from. **DAVID MILNE & SON, Ethel, Ont.**

**SHORTHORNS:** We are offering for sale 8 years old, by Mungo 2nd and Scottish Bard. Also a few cows bred to Baron's II. r.  
**ROBT. GLEN, Owen Sound, Ontario.**

**MILK FEVER IN COWS.** Symptoms, cause, and treatment by the Schmidt system explained by **DR. WILLIAM MOLE, M. R. C. V. S., Price 25c, 413 Bathurst St., Toronto.**

Stock Barn of Mr. John D. Ferguson, in the township of Yarmouth. Basement walls and floors built almost entirely with

THOROLD CEMENT

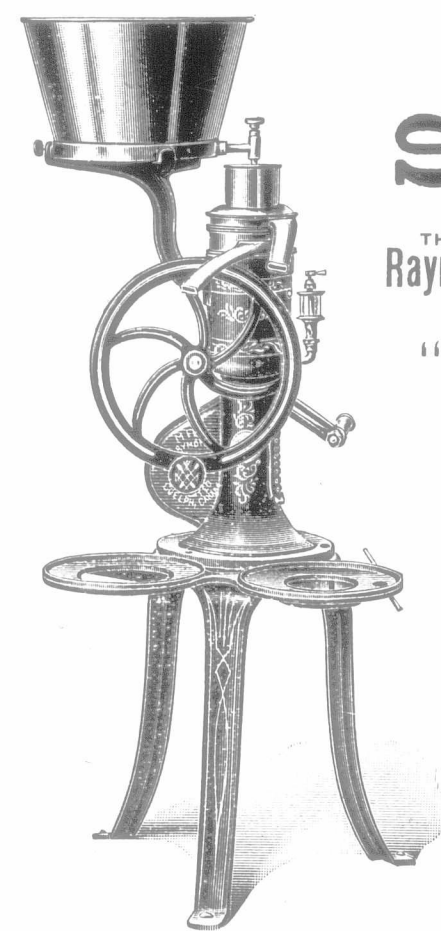


Stock barn of Mr. John D. Ferguson, in the township of Yarmouth. Dimensions of the building, 80 x 48 feet; foundations of concrete, 2 1/2 feet deep. Floors and roof, cellar all of Thorold Cement.

ESTATE OF JOHN BATTLE: ST. THOMAS, APRIL 18TH, 1901.  
Dear Sirs,—Having used a large amount of your cement during the last five years in the County of Elgin, I can truthfully say that the farmers have not the slightest fault to find with it, and they say they would not use any other as long as they can procure yours for the money.  
EDWARD GROVER.

THE ESTATE OF JOHN BATTLE, THOROLD, ONT.

The National Cream Separator,



MANUFACTURED BY THE Raymond Mfg. Co. of Guelph, Can.

ALSO MARKES OF THE CELEBRATED "Raymond Sewing Machine."

REPORT FROM WATERLOO COUNTY. TO THE RAYMOND MFG. CO., GUELPH, ONT.:

GENTLEMEN,—I wish to make a statement that should be of some encouragement to your firm just at this time when your Company is investing a large amount of capital in shoes and machinery for the purpose of manufacturing the "National" Cream Separators. I bought a "National" in December, 1898, and received some practical instructions at the O. A. College, Guelph, in the way of making good butter and putting it in neat form for market. The first year I had nine cows and sold \$45.00 worth of butter from each cow, besides keeping the house in butter and having the skim milk fresh, sweet and warm for the calves. In 1900 I received higher prices for the butter, and made \$52.00 per cow from 12 cows, or a total of \$623.73. I market my butter in Toronto and Woodstock, and can find ready sale for more than I can make. Although I am a farmer, I have sold 93 "National" Cream Separators since I got my own, two years ago. The "National" is profitable to a farmer, whether he makes the butter at home or sends the cream to the creamery. I use a Babcock tester, and find the "National" cannot be beat at close-skimming. Wishing you success, and hoping you will be able to supply your agents with machines as fast as we need them, I am,  
Respectfully yours,  
Tavistock, March 20, 1901. CHAS. I. ZEHM.

"NATIONAL" NO. 1 HAND POWER. Capacity, 330 to 350 lbs. per hour.  
**THE Creamery Supply Co.** General Agents for Ontario. GUELPH, ONT.

Please Mention The Farmer's Advocate.

**GOSSIP.**

In the year 1900 there were 1,940 boars kept for breeding purposes in Ireland. Of these, 1,222 were of the White breeds, 76 Berkshires, 3 Tamworths, 451 cross-breeds, and 188 not falling under any of these heads.

One of the foremost breeders of high-class Shorthorn cattle in this country is Mr. Chas. Rankin, of Wyebridge P. O., near Midland, Ont. On the occasion of a recent visit, Mr. Rankin showed us six imported Scotch-bred cows that are well worth a visit to his farm to see. *Glady's*, Vol. 43, p. 352, E. H. B., a handsome red 4-year-old, bred by D. C. Bruce, Breadland, Huntley; sired by Sigmund 2nd 69583; dam Fanny B. 20th, by the Duthie-bred Dashwood, by Cupbear. *Alice*, bred by James Brown, Crovie Farm, Banff; sired by Roslin 67774; dam Bessie Lee 2nd. *Beryl*, Vol. 45, bred by W. A. Mitchell, Auchaugathle, Whitehouse, Aberdeen; sired by Livy 61118; dam Budget. *Tilbouries Duchess*, bred by John Young, Tilbouries, Maryculter; sired by Allan Gwynne 66609; dam Rossie 2nd. *Bloomers*, bred by J. B. Manson, Kilblean; sired by Merry Mason, by William of Orange; dam Saunterer Beauty. *Rothnick Rose*, bred by John Young, Tilbouries, Maryculter; sired by Allan Gwynne 66609; dam Red Rose. These cows, along with numerous others, both imported and home-bred, constitute a magnificent herd of Shorthorns, and one of which Mr. Rankin is justly proud, for it contains many very choice animals. Mr. Rankin is the breeder of the beautiful cow, Dorothea, winner of second prize at the International Show at Chicago, 1900. The present stock bull is *Gladiator*, imp., bred by Philo L. Mills, Rudington Hall, Nottingham, England, and imported by W. D. Platt, Hamilton; sired by Pride of Fashion 73239, a son of the noted Highland Society champion, Pride of Morning, and his dam by the great Scottish Deerp. *Gladiator* is one of the heavy, deep, thick-fleshed bulls that are so much sought after as sires, and his superiority as such is shown in the excellent calves he is leaving. Intending purchasers should see this herd.

**T. S. COOPER'S JERSEY SALE A GRAND SUCCESS.**  
The greatest sale of Jersey cattle in America for many years was that of Mr. T. S. Cooper, at Coopersburg, Pa., on May 30th, when 108 imported Jerseys were sold at auction, realizing \$18,789, or an average of \$171.75. The 4-year-old imported bull, Golden Monplaisir, sired by Golden Lad, a magnificent specimen of the breed, brought the sensational price for a dairy bull in these days of \$3,500, and was bought by H. N. Higginbotham, Joliet, Ill. The 2-year-old bull, Imp. Golden Fern's Brown Fox, brought \$2,200. Vanderhoff Farms, Wellsburg, W. Va., being the purchaser. The highest-priced cow was Golden Rosebay, a 5-year-old daughter of Golden Lad, bought by Biltmore Farms, Biltmore, N. C., at \$2,775. The next highest price was \$1,400, for Golden Beatrice, another 5-year-old daughter of Golden Lad, taken by the same buyer. Eighteen imported bulls sold for an average of \$568.89, and 50 imported cows for an average of \$518.

Mr. Cooper's sale last year of 83 imported Jerseys at an average of \$371 was considered a great success, and many were doubtful of his ability to improve on that record this year, but he promised a better lot of cattle, and the result seems to have fully justified the promise. He is an excellent judge and a master of the art of selecting, preparing and placing his cattle before the public to advantage.

**ARTHUR JOHNSTON**  
Greenwood, Ontario, Canada.  
HIGH-CLASS  
SCOTCH SHORTHORNS

(First Importation Made in 1874.)

(My recent importation of 30 head has just arrived home from quarantine. Herd now numbers over 120 head.)

**OFFERS FOR SALE**

- 40 Imported Cows and Heifers,
- 40 Home-bred Cows and Heifers,
- 11 Imported Bulls and Bull Calves,
- 13 Home-bred Bulls and Bull Calves.

Railway stations—Pickering, on main line of Grand Trunk Railway, 22 miles east of Toronto, and Claremont, 23 miles east of Toronto, on the C. P. Railway. Catalogues on application.

**I WILL IMPORT**

Shorthorns and sheep. Orders sent to me in care of Alfred Mansell & Co., College Hill, Shrewsbury, Eng., until July 1st, will receive careful attention.

**ROBERT MILLER, Stouffville, Ontario.**

**For Sale:** 3 Shorthorn bulls of first-class breeding, sired by such noted bulls as Scotland's Fame (imp.) and Bold Britain, bred by John Isaac, Markham. Also some choice cows and heifers. **F. A. GARDNER, Britannia, Ont., PEEL COUNTY.**

**Shorthorns FOR SALE:**

8 Yearling and two-year-old Shorthorn heifers, in calf to imp. bull.

PRICES MODERATE.

**G. A. BRODIE, Bethesda, Ont.,**  
Stouffville Station.

**CENTRE WELLINGTON SHORTHORNS**

Herd consists of Scotch and Scotch-topped females, with Lord Stanley 4th = 22678 = at the head. Stock all ages for sale. Farm adjoins the town. Box 66. **H. B. WEBSTER, Fergus, Ont.**

**Prevention of Disease.**

**Keep the Stomach Right.**

It is surprising what a safeguard a healthy stomach is against disease. And, again, it is not so surprising when it is remembered that the only way we get pure blood, strong nerves and firm flesh is from wholesome food, *well digested*. It is the half-digested food that causes the mischief. When the stomach is weak, slow, inactive, the food lies in the stomach for hours, fermenting, forming gases which poison the blood and the whole system, causing headache, pains in the back, shoulder blades and chest, loss of appetite, palpitation, biliousness.

The safest cure for indigestion is Stuart's Dyspepsia Tablets, composed of vegetable essences, fruit salts, pure pepsin and golden seal. Dissolve one or two of these tablets in the mouth after each meal. They are pleasant tasting, and mingling with the food so assist the weak stomach that the food is perfectly digested before it has time to ferment.

Stuart's Dyspepsia Tablets cure indigestion and increase flesh, because they digest flesh-forming foods like meat, eggs, etc.

Sold by druggists at 50 cents per package. Absolutely safe and harmless.—Adv't.

**R. Mitchell & Son,**

Burlington Jct. Station, Nelson, Ontario.

Large herd of Scotch and Scotch-topped Shorthorns of the most popular Aberdeenshire tribes, including 4 imp. bulls, 12 imp. cows and heifers. Also a number of home-bred yearling and two-year-old heifers, and 7 good, thrifty home-bred bulls, from twelve to fifteen months old. Write for catalogue.

**Shorthorns and Leicesters.**

Herd Established 1855.

A number of young bulls, cows and heifers for sale. Herd headed by imported Christopher 28859, and Duncan Stanley = 16364 =. Grand milking cows in herd. Also a number of Leicesters of both sexes, from imported foundation.

**JAMES DOUGLAS,**  
CALEDONIA, ONT.

**SHORTHORN BULLS AND HEIFERS FOR SALE.**

Choice quality and best Scotch breeding. Imported and home bred. Imported Knuckle Duster (72793) and imp. Royal Prince head the herd, which has furnished the Provincial Fat Stock Show champion three out of the last five years. Catalogues on application.

**H. SMITH, HAY, ONT.**  
Exeter Station on G. T. R., half a mile from farm.

**YOUNG SHORTHORNS FOR SALE**

Our present offering includes several choice young bulls fit for service, sired by "Scotland Yet," and out of Warfare (imp.) dams; and also bull calves, from Blue Ribbon (imp.), and out of Royal George cows. Inspection and correspondence solicited.

**A. & D. BROWN,**  
M. O. RAILWAY, IONA, ONTARIO.

**WOODSLEE STOCK FARM.**

FOR SALE: 3 Shorthorn bulls, 15 months old, two reds and one roan. Well developed, healthy, and thick fleshed.

**S. G. LITTLE, Hagerman, Ont.**  
W. PATTON, Manager.

Unionville Station, G. T. R.

**SHORTHORNS.**

FOR SALE.—Bulls: Two 1 year old and one 8 months. A few heifers of choice breeding and superior quality. **AMOS SMITH, Trowbridge P. O., Listowel Stn.**

**RIG. CASTRATION.**

Dr. J. Wilson, V. S., Wingham, Ont., Specialist in the castration of ridgelings. Terms and testimonials on application.

**J. R. McCallum, Iona Station, Ont.**

Offers young SHORTHORN BULLS and HEIFERS, of choice breeding, at reasonable prices. Iona Stn. on M.C.R., half a mile from farm.

**SHORTHORN CATTLE AND LINCOLN SHEEP.**

Imp. Prime Minister at head of herd. Seven young bulls for sale—good ones. Also a few females. Stud rams all imported from H. Dudding, Esq.; the same blood as the 1000-guinea ram.

**J. T. GIBSON,**

DENFIELD, ONT.

**Maple Lodge Stock Farm**

ESTABLISHED 1854.

**SHORTHORNS**—Grand young bulls and heifers for sale. We have the first-prize milking strains. Imported Knuckle Duster and Imported Sir Wilfred in service.

**LEICESTERS**—First-prize flock of Canada for past six years. Imported and home-bred for sale.

**ALEX. W. SMITH,**  
Stouffville Station, ONT.

**HAWTHORN HERD OF DEEP-MILKING SHORTHORNS.**

We are offering 8 young bulls for sale, of first-class quality, and AI breeding. **Wm. Grainger & Son, - Lonsdale, Ont.**



**O.K.**

**U S U S U S U S U S U**

**THERE IS NO BETTER INVESTMENT**

**FOR THE DAIRY THAN THE IMPROVED U.S. CREAM SEPARATOR**

Its substantial one-piece frame and enclosed gears, running in oil, insures the user a long lived machine and few repair bills. Its three-separators-in-one bowl makes it the greatest cream producer on the market, as has been proved many times in competition with other makes. If interested, write for illustrated catalogues.

**VERMONT FARM MACHINE CO.**  
BELLOWS FALLS, VT., U.S.A.

**SHORTHORNS:** We are offering 3 extra choice yearling bulls, all from imported sires, straight Cruickshank, with Lavendar and Miss Ramsden dams. **THOS. ALLIN & BROS., Oshawa, Ont.**

**SPRING GROVE STOCK FARM**

Shorthorn cattle and Lincoln sheep. Herd prize and sweepstake at Toronto Industrial Exhibition, 1897 and 1898. Herd headed by the Marr Mistle bull, Imp. Wanderer's Last, last of the get of the great sire, Wanderer, of the Cruickshank Brawith Bud tribe. High-class Shorthorns of all ages for sale. Also prizewinning Lincolns. Apply **T. E. ROBSON, ILBERTON, ONT.**

**Wonderful Results**

Have been obtained by over one hundred farmers in the last few weeks by feeding

**Hersee's Reliable Stock Food**

Hersee's Reliable Stock Food, Poultry Food, Insect Killer, for sale by leading dealers. Send to-day for stock book.

**Edwin Hersee, Mfr., WOODSTOCK, ONT.**

**SHORTHORNS (imported)**

3 BULLS: 1 two-year-old, 2 one-year-olds. A few cows and heifers. **THOS. RUSSELL, EXETER P. O.**

**SPRINGBANK FARM.**

Shorthorn Cattle, Oxford Sheep, and Bronze Turkeys. Young bulls for sale. **JAS. TOLTON, WALKERTON, ONT.**

**SHORTHORNS.**

6 choice young heifers, 4 imported cows. Also 16-months-old home-bred bull. **A. P. ALTON & SON,** Burlington Junction Station. **Appleby P. O.**

**High-class Shorthorns and Yorkshire Pigs.**

Just now three 10-months bulls, got by imp. Sirius 15281, great big massive fellows with lots of flesh and quality—away above the average. Also a few superior young cows in calf, and 5 or 6 heifers. We are booking orders now for the spring trade. Can ship some in six weeks. **JAS. McARTHUR, GOBLE'S, ONT.** Goble's Station, G. T. R., 10 miles east of Woodstock, 2 miles from farm. Visitors met.

**JOHN DRYDEN,**

BROOKLIN, ONTARIO.

OFFERS SIX YOUNG SHORTHORN BULLS, ready for service, at reasonable prices. Strong, active, masculine.

**GOOD QUALITY AND CHOICE BREEDING.**

**Clover Leaf Lodge HERD OF Shorthorns**

A number of choice young bulls, heifers and cows, excellent milking strains. Correspondence invited. **R. CORLEY, Belgrave P. O., Ont., and G. T. R.; Wingham, C. P. R.**

# TROUT CREEK HERD OF SHORTHORNS.

Since our Chicago sale we have imported sixty-two head, including some Royal winners; they were pronounced in Scotland superior to past importations. We try to import the best, believing that this is one of the ways to assist in improving the breed on this side of the water. Being thoroughly convinced, also, that a bull of the right sort is even more than half the herd, we have decided to keep the following choice ones:

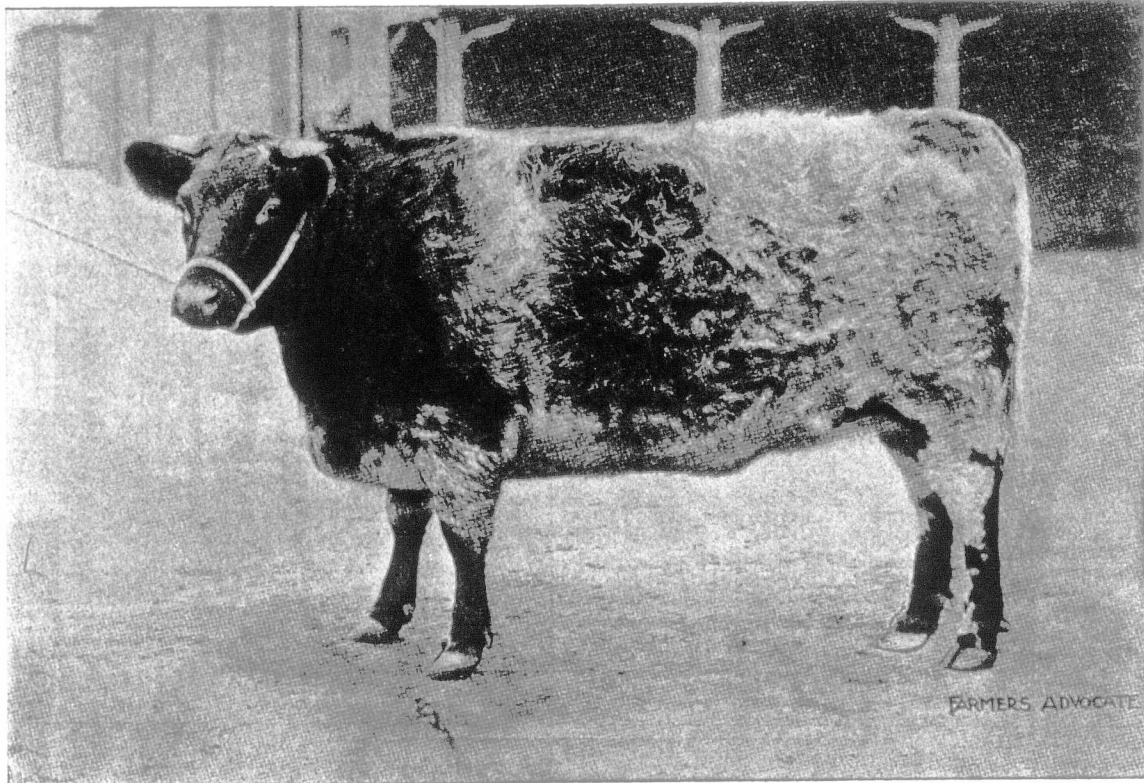
## Imp. Lord Banff.

Bred by A. Watson; of the Campbell Bessie family.

## Imp. Consul.

Bred by J. D. Fletcher; of the Campbell Claret family. Consul was awarded first at Edinburgh, first and champion at Provincial Union, first and champion at Creiff, and second at the Highland. His sire, Watchword, bred by Wm. Duthie, was first at the Highland in 1895 and 1896, and got by Scottish Archer. Watchfire, by Watchword, was first at the Highland, 1897. Consul is the highest-priced bull imported to Canada.

Hamilton is a city of over 50,000 inhabitants, located on main line of Grand Trunk Railway, between Chicago and Buffalo; also connected by Canadian Pacific Railway and Michigan Central Railway—branch lines.



CICELY.

Bred by Her late Majesty the Queen; undefeated in her class and many times champion; imported by W. D. Flatt.

## Imp. Silver Mist.

Bred by Wm. Duthie; of the famous Missie family. He had many friends for first choice at Messrs. Marr and Duthie's sale. Mr. Beck, representing the Prince of Wales, made next to last bid.

## Imp. Wanderer's Last.

Bred by W. S. Marr; also of the Missie family. Is the last calf got by that renowned Cruickshank bull, Wanderer. Mr. Marr considers this youngster very promising.

We keep in our herd a choice lot of both imported and Canadian cattle, of both sexes, from which to make selections. Personal inspection invited. Parties desiring to see the herd will be met on arrival of trains at Hamilton if notice is given. Visitors always welcome.

We have at present for sale the red yearling bull, Singapore, by Golden Star, 1st and champion at Royal Northern last year. We have also a good Canadian-bred bull for sale, fit for service.

**W. D. FLATT, 378 HESS ST. SOUTH, HAMILTON, ONT.**

JAS. SMITH, MANAGER.

# SHORTHORNS

SCOTCH IMPORTED.

Young imported cows with calves at foot for sale. A number of the calves are imported in dam.

Some of the families represented in the herd are as follows:

160  
Head

AUGUSTAS  
CLARAS  
NECTARS  
GOLDIES  
JENNY LINDS  
VICTORIAS  
MATILDAS  
BESSIES  
CROCUSES

ROSEBUDS  
BRAWITH BUDS  
LANCASTERS  
MAYFLOWERS  
AMARANTHS  
BUTTERFLYS  
CLIPPERS  
EMMAS  
BROADHOOKS

MEDORAS  
MINAS  
VILLAGE MAIDS  
BEAUTYS  
MISS RAMSDENS  
FLORAS  
RAGLANS  
LUSTRES  
GEMS OF THE VALE

160  
Head

Herd headed by the Imported Bulls, **GOLDEN DROP VICTOR** and **PRINCE BOSQUET**.

IF INTERESTED, COME AND SEE US, OR WRITE

**H. CARGILL & SON,**

CATALOGUE FREE.

CARGILL, ONTARIO, CANADA.



# Shorthorns.

We have 10 cows and 5 young bulls, their ages ranging from 6 to 18 months; colors ranging from dark red to pure white. **H. K. FAIRBAIRN,** Thedford, Ont.

**T. DOUGLAS & SONS, STRATHROY, ONT.,** BREEDERS OF **SCOTCH SHORTHORNS.**

100 HEAD TO SELECT FROM. Offer for sale 8 young bulls, and cows and heifers of all ages, of the most approved breeding, bred to (imp.) Diamond Jubilee = 28861 =, at head of herd. Farm one mile north of town, Ont.

**SHORTHORNS, COTSWOLDS AND BERKSHIRES FOR SALE.**

One yearling bull; 9 bull calves; cows, heifers and heifer calves; 7 yearling rams; 20 ram lambs; ewes and ewe lambs; young pigs, from 6 weeks to 2 months old. **F. BONNYCASTLE & SONS,** Campbellford P. O., Ont.

**Shorthorns and Shropshires FOR SALE.**

3 bull calves, by Collynie Archer. 11 ram lambs—choice. A few ewe lambs and shearlings. **WM. D. DYER, COLUMBUS, ONT.,** BROOKLIN STATION, G. T. R.

**SHORTHORNS FOR SALE**

Young stock of both sexes, reds and roans. **JOHN R. HARVIE, ORILLIA, ONT.**

**JAS. DORRANCE, SEAFORTH, ONTARIO,** BREEDER OF

**Shorthorn Cattle and Berkshire Pigs**

Young stock always for sale. -om

**FOR SALE.**

**SHORTHORNS**—Young bulls and heifers. Leicesters and Southdowns, both sexes. Berkshires—Young boars fit for service, young sows in pig and ready to breed. Also choice seed peas. Write for catalogue or come and see. **E. JEFFS & SONS, Bond Head.**

**ASHTON FRONT VIEW STOCK FARM.**

Six Shorthorn Bulls for sale, from 8 to 15 months old; all of choice breeding. Also Cotswolds of all ages for sale at all times. Visitors welcome. **A. J. WATSON, Castleberg, Ont.** C. P. R. Station and Telegraph Office, Bolton; or G. T. R., Palgrave.

**HOLWELL MANOR STOCK FARM.**

**SHORTHORN CATTLE, SHROPSHIRE SWEEP, YORKSHIRE SWINE, SCOTCH COLLIE DOGS, BARRED PLYMOUTH ROCKS.** Young stock of both sexes for sale, imported and home-bred. Eggs for sale. **D. G. GANTON, ELMVALE, ONT.**

**SPRINGFIELD FARM**

HERD OF **Shorthorns, Oxfords, AND Berkshires.** Young bulls and Heifers on hand. Also a few choice Berkshires. **CHAS. RANKIN, Wyebridge, Ont.** SIMCOX CO. -om

**FOR SALE:**

Three Guernsey bulls, 5, 9, 18 mos. old, sired by Masher (imp.). Six Ayrshire bulls, 1 year and under, sired by Matchless. Shropshire lambs, sired by Canadian Flagstaff (imported direct). Address—**ISALEIGH GRANGE FARM, J. N. GREENSHIELDS, Prop. Danville, Que.**

**Aberdeen - Angus Cattle.**

Several thoroughbred bulls for sale. Apply to the **MANAGER, Grape Grange Farm, or to** **C. W. HARTMAN, Clarksburg, Ont.**

**W. R. Bowman,** Mt. Forest, Ont.

**OFFERS FOR SALE** 3 Polled Angus bulls (choice ones); 1 Shorthorn bull, 11 mos.; Yorkshire pigs, 6 weeks, at \$6.00; Plymouth Rock eggs, 5 settings for \$2.00. **P. H. LAWSON, Nilestown, Ont.**

### A Few Facts About "Cream Equivalent."

Bibby's "Cream Equivalent" has become a household word with stock-rearers in almost every part of the world. It is used to substitute cow's milk where milk is scarce, and to enrich skimmed or separated milk where these products are available. A farmer can, by its means, rear good calves and sell his milk or the butter and cheese fats. "Cream Equivalent" supplies what is lacking in separated or skimmed milk, and yields more economic results than are otherwise obtainable.

It contains no chemicals, and is, therefore, a thoroughly wholesome food. Calves take to it readily and thrive well on it. No other production does the work with the same effectiveness.

If you are short of milk, or have only separated milk for your calves, make a trial of "Cream Equivalent," and you will never again be without it.

It represents the net results of hundreds of practical tests carried out on our own experimental farm at Hall O'Coolle, Cheshire, England.

It has the largest sale in the world: every country where the farmer needs an efficient milk-saver or milk-enricher uses it.

You had better send for a trial bag and make your own test. We supply full directions for use. The price is: 50-lb. bag, \$2.00; 100-lb. bag, \$3.50; freight paid to nearest railroad station. 10 Bay St., Toronto. **J. BIBBY & SONS.**

**NEWCASTLE HERD OF Shorthorns and Tamworths.**

One choice 2-year-old heifer. About a dozen boars, ranging from 2 to 4 months old; also a few nice young sows—all from Toronto prize stock. Be sure to write for prices. **COLWILL BROS., Newcastle, Ont.**

**SPRING BROOK Holsteins, Tamworths & B. P. Rocks.**

2 choice De Kol bull calves, 1 cow, 2 heifer calves—all De Kols. Tamworths: One boar, 9 months; a few sows. Orders booked for spring litters. **A. C. HALLMAN, Waterloo Co. New Dundee, Ont.**

**BROOKBANK**

Is headquarters for Holstein bulls. They are going fast; be quick if you want one. In writing, state age, etc., preferred. **GEO. RICE, Currie's Crossing, Ont. Oxford Co.**

**Maple Glen Stock Farm.**

The home of officially tested, Advanced Registry, dairy test and showing-win. A grandsoning herd of **SYLVA HOLSTEINS**, of Carman Sylva now for sale. Price is in keeping with breeding and performances. **C. J. GILROY & SON, Brookville, on C.P.R. or G.T.R. Glen Buell, Ont.**

**WHERE ARE THE BEST HOLSTEINS?**

Have you read of Lilith Pauline DeKol's wonderful record? Her sire was bred here. Have you read of Susie DeKol's record? She was sired by a son of our great cow, DeKol. We can give our customers more of the blood of the greatest producers than can be found in any other herd. Look over official reports and see where the sires of the great producers were bred. We have over 30 young bulls for sale, and a large number of females. Animals shipped to Canada are accompanied by certificate of health, and are subject to no duties or quarantine. If you want the best, write or visit. **BROOKSIDE HERD, H. Stevens & Sons, Lacona, Oswego Co., N.Y.**

**3 Holstein-Friesian** YEARLING BULLS for sale. Apply to **Wm. Suhring, Sebringville P. O., Ont.**

**Riverside Holsteins.**

2 BULLS 7 months old, sired by Victor DeKol Pieterje, imp. Dams: Woodland Molly DeKol (imp.) and Gemima Wayne. **M. RICHARDSON & SON, Haldimand Co. Caledonia, Ont.**

**UNADILLA FARM.**

**F. L. GREEN, GREENWOOD, ONTARIO,** BREEDER OF

**St. Lambert Jersey Cattle and Yorkshire Pigs.**

My Jerseys are bred for business. Both sexes for sale. I offer an extra choice bull, dropped Feb. 27th, 1901, for sale, a son of **Queen May of Greenwood**, who made 18 lbs. butter in 7 days, and is at Pan-American now. A lot of very choice **Yorkshires** on hand. Also Barred Rocks, Light Brahmas, and Bronze turkeys. Prices right. -om

**Jersey Calves**

From large, deep-milking cows, who have given 7,000 lbs. each of 1 1/2 per cent. milk during the past year; good colors, and from two to six months old. For description and prices write **W. C. SHEARER, - BRIGHT, ONT.**

**JERSEYS.**

Registered Jersey yearlings and calves, heifers and bulls. Some pure St. Lamberts from heavy-milking cows, and sired by the pure St. Lambert bull, John Bull of Grovesend 1574, by Nell's John Bull, dam a 20 lbs. 12 ozs. cow, Nettie of St. Lambert 13675, by King of St. Lambert. Write for prices. **P. H. LAWSON, Nilestown, Ont.**

### GOSSIP.

In the notes respecting the Shorthorn bull, Starlight = 17411 =, in our last issue, an error occurred in stating his color, which is red, as given in the herdbook, and not dark roan as it appeared in the notice.

Statistics as to the breeds of stallions in Ireland are given in the newly-issued agricultural statistics. There were in 1900, 681 Thoroughbreds, 460 half-breeds, 115 Hackneys, 62 Shires, 260 Clydesdales, 382 agricultural, and 149 all others.

In January last, Mr. F. Miller, the well-known importer, sold in the market at Buenos Ayres thirty-one imported Lincoln rams at an average of £75 each, the top price being £136 and the bottom price £12 per head. At the same market, in the month of February, Messrs. Bullrich & Co. disposed of 321 Argentine-bred Lincolns at an average of £26.

The Council of the Royal Agricultural Society has agreed to the site of the permanent show at Twyford. It will be on the new London to Oxford Railway in process of construction by the Great Western Railway Company, and about six miles from the city. The Council has agreed to raise funds by soliciting donations.

The difficulties which arose in the dairy test at the Pan-American between the American and Canadian officials and dairymen have been overcome and amicably settled by the appointment of Mr. J. Stonehouse, of the Guelph Dairy School staff, and Prof. Gooderich, of Fort Atkinson, Wis., to conduct the test, much to the satisfaction of all concerned, and matters are now running smoothly.

Durham & Cavan, Berkshire breeders, East Toronto, write: "We are well satisfied with the inquiries the ADVOCATE has brought us, and it has made us many sales. Among recent shipments were a boar and sow to Mr. Chatfield, of Michigan; a boar and two sows to Mr. Garbutt, of Michigan; a boar and two sows to Mr. Cheney, of New York; a boar and seven sows to Mr. Willett, of New York; a boar to Mr. Manson Campbell, Chatham, Ont.; besides many shipments nearer home, and most of the credit of these sales must be given to the ADVOCATE, as it is the only paper we have advertised in. We have some nice young stock coming on for sale, at reasonable prices."

Mr. D. H. Russell, Stouffville, Ont., is rapidly gaining continental fame as a breeder of Shorthorn cattle. His inability to fill the large number of orders he receives amply testifies to the quality of stock he breeds. The youngsters now on his farm are a choice lot, and a glance at the sire and dams and their pedigrees explains it all. His Isabella-bred stock bull, **Royal Stamp 29873**, by Sittytown Hero, dam by Imp. Premier Earl, is an extra well developed fellow, possessing those popular qualities of conformation and quality that are so much sought after, and has proven his ability to produce his like. Mr. Russell's females are sired by such noted sires as Kinellar Sort (imp.) and Prince of Carriek, a half-brother of the World's Fair sweepstakes bull, Lord Stanley. Their dams are from the Strawberry and Meadow-flower strains and by noted Scotch-bred sires.

Rowat Bros., of Hillsdale P. O., Ont. (Elmvale Station on Barrie & Penetang, branch of G. T. R.), are extensively engaged in the breeding of high-class Shropshire sheep, their flock at present numbering some 90 odd, exclusive of this season's crop of lambs. Among them can be seen some extra nice ewes of that favorite breed, showing broad, level backs and depth of body, and withal being extra well covered. Rowat Bros. have been breeding Shropshires for 15 years. The flock was started on Mansell foundation, and the stock rams have all been from that favorite strain, Rowat Bros. being firm believers in the superiority of the Mansell family of Shropshires. Intending purchasers would do well to communicate with Rowat Bros., who are noted for square dealing.

**ONTARIO LIVE STOCK AT THE PAN-AMERICAN EXPOSITION.**

Inspectors have been appointed by the Ontario Department of Agriculture to inspect Ontario live stock offered for exhibition at the Pan-American Exposition. It is a matter of great importance that only representative animals of the various breeds should be on exhibition to show what Ontario can do in the line of breeding and feeding pure-bred live stock. Intending exhibitors in any of the classes of swine, cattle, sheep and horses should notify A. P. Westervelt, Secretary of the Live Stock Associations, Parliament Buildings, Toronto, in order that the inspector may be procured. Particulars as to the breed and the number of the animals offered should be given. Transportation of accepted stock will be paid to and from Buffalo.

**CALEDON CHIEF FOR THE COLLYNIE HERD.**

Recently, Mr. Duthie, of Tarves, Aberdeenshire, crossed over to the Emerald Isle for the purpose of inspecting the great champion bull, Caledon Chief, and was so pleased with him that he at once hired him for this season. Caledon Chief 74163 was bred at Caledon, and was calved on the 14th of September, 1898, so that he is only 2 1/2 years old. He has been shown five times, and has won three championships and was twice reserved for champion. He was got by the Scottish Archer bull, Laureate, out of the Sign of Riches cow, Rowena 5th, who was herself a champion, and when exhibited as a yearling at the N. E. Show in 1897, won the challenge cup for the best shorthorn female bred in Ireland. She is of the same family as the dam of Farrier, who was sold last year for £1,300 in Buenos Ayres, so that Caledon Chief is just what Mr. Cameron expected to produce from such ancestors. Caledon Chief is a rich roan, with abundance of the best quality of hair, a perfect head and horn, wonderfully level back, and his quarters beautifully turned. He is exceptionally broad, with a perfect under line, and is as gay and proud looking as any of the red deer in the Caledon Park, though he is over 18 cwt. at 30 months old. He shows great substance, quality, symmetry, and vigor, and it is seldom that such a combination is to be found in any animal. The selection of Caledon Chief as a stock bull for the Collynie herd is the greatest honor that could be conferred upon him, and we congratulate not only the breeder, but also the Emerald Isle, for being able to breed a sire that would take the eye of such a famous breeder as Mr. Duthie.

## PILES Cured Easy.

Archie Birkett, Ionia, Mich.: "I had to quit work on account of piles. I suffered terribly all the time. Two applications from a 50 cent box of Pyramid Pile Cure cured me completely. All druggists sell it. Book on Piles, causes and cures mailed free, Pyramid Drug Co., Marshall, Mich."

### A LOST COW.

That can never happen where the cows wear our patented **Swiss Cow Bells** Made from finest quality of Swiss Bell Metal, they are light but strong and lasting. Musical in the extreme. They aid to the appearance of herd besides making them tame and tractable. 4, 5 and 6 in. in diameter. Strap with each. Direct in sets of 3 to introduce. Circulars on Cow, Sheep and Turkey Bells Free. **Bevin Bros. Mfg. Co., East Hampton, Conn.**

**LIVE STOCK AUCTIONEER.** The undersigned is prepared to conduct pure-bred auction sales. 20 years' experience. References: John I. Hobson and Alfred Stone, Guelph; Jas. Hunter, Alma, and Mossom Boyd, Bobcaygeon. THOS. INGRAM, care Mercury Office, GUELPH, ONT. -o

### BRAMPTON JERSEY HERD.

For sale: 2 yearling bulls; 8 bull calves, sired by Brampton's Monarch (imp.), and out of first-class cows. A number of cows and heifers in calf. Also some unregistered cows and heifers, fresh-calved and springers—grand family cows. **B. H. BULL & SON, BRAMPTON, ONT.**

## SPLENDID Jerseys for Sale.

Two bull calves and two heifer calves that will equal anything I know of; age, 1 to 3 months; price, \$30 to \$60. One yearling heifer, blood of old Massina, 900 pounds butter in one year, \$100. One yearling bull, extra breeding, \$80. All registered. Crated and put on express car.

**MRS. E. M. JONES,** Box 324. **BROCKVILLE, ONT., CAN.**

### GLEN ROUGE JERSEYS.

**WILLIAM ROLPH, Markham, Ont.,** offers twelve Jersey Bulls and Heifers (pure St. Lambert), out of tested cows. Grand individuals. Prices right.

**FOR SALE:** THREE BULL CALVES, from 4- to 10 mos. old, from choice Ayrshires of deep-milking strains. Prices reasonable. Come, or write to **Carr's Crossing, G.T.R. W. F. STEPHEN, Brook Hill Farm, Trout River, Que.**

**FOR SALE:** IMPORTED AND HOME-BRED **AYRSHIRES,** including cows, heifers and young bulls out of our prize and sweepstakes cows. Foundation selected with due regard to quality and productiveness. Come or write. **WM. WYLIE, - HOWICK, QUEBEC.**

**Maple Cliff Dairy and Stock Farm.**

**AYRSHIRE CATTLE, IMPROVED BERKSHIRE AND TAMWORTH PIGS.** FOR SALE: 5 bull calves, a few heifers; young pigs, pairs not akin; 2 boars, 4 months old; young pigs. Farm adjoins Central Experimental Farm, Ottawa. **R. REID & CO., Hintonburg, Ont.**

**TREDINNOCK AYRSHIRES**

Imported bulls at head of herd: Glencairn 3rd, Napoleon of Auchenbrain, and Lord Dudley. Forty imported females, selected from leading Scotch herds, and their produce from above-named bulls. Size combined with quality and style, well-formed udders, good-sized teats, and capacity for large milk production. Bull calves for sale; also a few young cows and heifers. For prices and particulars, address **JAMES BODEN, Mgr., St. Anne de Bellevue, Quebec.** Farm close to St. Anne Station, G.T.R. & C.P.R., 20 miles west of Montreal, Ont.

### CHOICE AYRSHIRE BULLS.

OFFER: Five bull calves, one dropped in each of the months of August, November, December, January, and April. Good individuals, and from deep-milking strains. -om

**W. W. BALLANTYNE,** Stratford, Ont. "Neidpath Farm" adjoins city, on main line O. T. R.

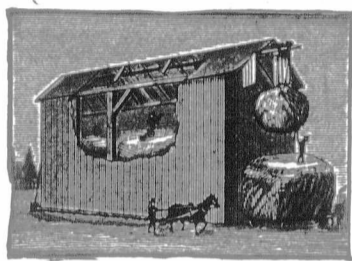
**Ayrshire Bulls:** Write to J. YUILL & SONS, Carleton Place, for special prices on Ayrshire bulls from 1 1/2 years to 6 months. Four over 15 months, fit for service, from special milking stock. Sired by prize bull, Jock of Burnside—1684—, also females of all ages. Shropshire sheep of all ages; a number of fine ram lambs. Berkshire pigs of either sex, of the best bacon type. B. P. Rocks. -om

**W. WILLIS & SONS, Newmarket, Ont.,** Breeders of Jerseys (St. Lamberts), Offer for sale, cheap, 2 very fine young bulls, fit for service, out of prizewinning cows, to make room for more coming. o

**SUNNYLEA FARM.** For sale: Jerseys—6 yearling bulls; females all ages. Tamworths—30 boars and sows, different ages. Shropshire sheep—rams and ewes of good breeding. Prices reasonable. o

H. E. WILLIAMS, Knowlton, P. Q.

**BUCHANAN'S** (Malleable Improved) **PITCHING MACHINE** For unloading hay and all kinds of loose grain.



Unloads on either side of barn floor without ironing car. No climbing necessary. Malleable Iron Cars. Steel Forks. Knot Passing Pulleys. Will work on stacks as well as in barns. Satisfaction guaranteed.



**The Common-Sense Sheaf-Lifter** Works in connection with Pitching Machine, and is the most complete apparatus ever offered to the public for pitching sheaves. Sheaves left in the mow just as they come from the load.

**RESPONSIBLE AGENTS WANTED**

Circulars, Prices and Terms on application to M. T. BUCHANAN & CO., Ingersoll, Can.

**LUBRICATING OIL**

From the oil wells, for spraying, painting and washing trees. No insects or San Jose scale on trees painted with petroleum. Send \$1.25 (by registered letter or post-office order) for 5 gallons oil. Warranted pure oil. No glucose, paraffine or gum to make it heavy. Full directions with each package. Write for prices for larger quantity. o

MCCALL & REILLY, OIL PRODUCERS, PETROLIA, ONT.

**"Farnham Farm" Oxford Downs.**

FLOCK ESTABLISHED 20 YEARS.

Forty superior yearling and two-year rams. Two extra fine imported rams. Sixty yearling rams, rams. Forty yearling ewes. One hundred ram lambs. Stock good and prices reasonable. om

HENRY ARKELL, Guelph, Ont., G. T. R. Arkell, Ont., C. P. R.

**SHROPSHIRE TO HEAD FLOCKS.**

ESTABLISHED 1881.

20 Yearling Rams, 30 Ram Lambs, 20 Ewe Lambs, of superior quality, form and covering, the get of an extra good imported ram and choice dams, a number of which have been imported from Thomas, Farmer, Tanner, Minton, and Barber flocks. Also a few choice English Collie pups ready for shipment.

GEO. B. PHIN, HESPELER, ONT. Waterloo County. o G. T. R. and C. P. R.

**EUROPEAN ADVERTISEMENTS.**

J. E. CASSWELL'S

**LINCOLNS,** Laughton, Folkingham, Lincolnshire, England.

Breeder of Lincoln Long-wooled sheep. Flock No. 46. At the Palermo Show, 1900, 25 rams bred by J. E. Casswell averaged £51 each; 14 of the best averaged £63 each, this being the highest sale of the season in the Argentine. Ram and ewe hogs and shearlings for sale; also Shire horses, Short-horns, and fowls. Telegrams: "Casswell, Folkingham, Eng." Station: Billingboro, G. N. R. o

**FAMOUS ALL OVER THE WORLD**

**ALFRED MANSELL & CO.,**

LIVE STOCK AGENTS AND EXPORTERS, SHREWSBURY.

BRITISH STOCK selected and shipped to all parts of the world. Write for prices to ALFRED MANSELL & CO., Shrewsbury, England, or to our American representative, Robert Miller, Stouffville, Ont., Canada.

**W. W. Chapman,**

Secretary of the National Sheep Breeders' Association, Secretary of the Kent or Romney Marsh Sheep Breeders' Association, and late Secretary of the Southdown Sheep Society.

Pedigree Live Stock Agent, Exporter and Shipper. All kinds of registered stock personally selected and exported on commission; quotations given, and all enquiries answered.

Address: FITZALAN HOUSE, ARUNDEL ST., STRAND, LONDON W. W. Cables—Sheepcote, London. -om

**HAMPSHIRE DOWN SHEEP**

**GREAT ENGLISH PEDIGREE SALES,**

July, August & Sept., 1901

Waters & Rawlence, Salisbury, Eng., will sell by public auction, during the season, upwards of

**50,000 Pure-bred EWES, LAMBS AND RAMS.**

including both rams and ewes from the best registered prizewinning flocks in the country. Commissions carefully executed. Address—

**Waters & Rawlence,** SALISBURY, ENGLAND.

**MANSELL'S DISPERSION SALE.**

**Shropshires.**

Andrew E. Mansell, Harrington Hall, Shipnal, England, who is settling in Tasmania, will sell by auction, without reserve, on Thursday, August 29th, 1901, his unrivalled flock of Shropshires. Sheep bought for America and Canada will, if desired, be sent in charge of Mr. Robert Mansell. Particulars and catalogues obtained from Alfred Mansell & Co., Auctioneers, Shrewsbury, England. Commissions carefully executed. o

**IMPORTANT SALE OF**

**PURE-BRED COTSWOLD SHEEP.**

Owing to the death of the late Mr. Robt. Garne, and the Aldworth farm of upwards of 1,000 acres being given up, the 3, 2 and 1 year-old ewes of this celebrated flock are offered for sale. An unrivalled opportunity to secure registered Cotswolds of the highest quality and merit is thus afforded. Rams and ewes from this flock during the last 11 years have won 28 first, 14 second, and 12 third prizes at the Royal Agricultural Society's Shows. Apply—

W. T. GARNE, Aldworth, Northleach, England.

**LITTLE'S PATENT FLUID SHEEP DIP AND CATTLE WASH**

THE ORIGINAL

**Non-Poisonous Fluid Dip**

Still the favorite dip, as proved by the testimony of our Minister of Agriculture and other large breeders.

For sheep.

Kills ticks, maggots; cures scab; heals old sores, wounds, etc., and greatly increases and improves growth of wool.

Cattle, horses, pigs, etc.

Cleanses the skin from all insects, and makes the coat beautifully soft and glossy.

Prevents the attack of Warble Fly.

Heals saddle galls, sore shoulders, ulcers, etc. Keeps animals free from infection.

**No danger, safe, cheap, and effective**

Beware of imitations.

Sold in large tins at 75 cents. Sufficient in each to make from 25 to 40 gallons of wash, according to strength required. Special terms to breeders, ranchmen, and others requiring large quantities.

SOLD BY ALL DRUGGISTS. SEND FOR PAMPHLET.

Robert Wightman, Druggist, Owen Sound.

Sole agent for the Dominion. -om

**Dorset Horn Sheep**

THE largest flock in America. The most celebrated prizewinners at the Columbian Exhibition and Canadian exhibitions. Contains more Royal winners than any other. Awarded 5 out of 8 first prizes at Toronto, London and Ottawa in 1900. Flock of 300. Stock for sale always on hand. o

John A. McGillivray, Uxbridge, Ontario.

Does Quality Count With You? If so, We Can Interest You . . .

**THREE LEADERS FOR 1901:**

F. & W. "WINDSOR" DISC HARROW  
F. & W. No. 8 MOWER  
F. & W. No. 2 BINDER

These Machines will Save You TIME and MONEY.

THE LITTLE MACHINE THAT CUTS THE BIG STUFF. NO BINDER WAS EVER MADE THAT WILL DO BETTER WORK OR MORE OF IT. Don't forget that we also manufacture a full line of Light Single Reapers, Steel Flows, Horse Rakes, Corn Cultivators, Spring-tooth Harrows, Potato Scufflers. A post card, with your name and address, to any of our branches will bring you one of our new 1901 illustrated catalogues, now ready. It will pay you to get one.

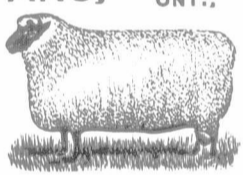
**THE Frost & Wood Company LIMITED.**

Head Office and Works: Smith's Falls, Ontario

BRANCH OFFICES: Toronto, London, Winnipeg, Montreal, Quebec; St. John, N. B.; Truro, N. S.

**SMITH EVANS, GOUROCK, ONT.,**

Breeder and importer of registered Oxford Down Sheep. Sections from some of the best flocks in England. Stock for sale at reasonable prices. Inspection invited. 6-1-y-o



**BROAD LEA OXFORDS.**

We have a choice lot of lambs this year, bred from our imported rams, Royal Warwick 3rd and May King 1st, some weighing 17 lbs. at birth. Also some good shearing ewes and rams. Also a few shearing ewes and rams fitted for show purposes. All of which we are offering for sale at reasonable prices. om

HENRY ARKELL & SON, Teeswater, Ont.

Phone and telegraph, Teeswater, Ont.

**COTSWOLDS FOR SALE.**

3 yearling rams, sired by Imp. Swanick Lad 101—extra choice ones. Also this season's crop of lambs. Joseph Ferguson, Uxbridge P. O. and Station. -om



**Fairfield Lincolns.**

The partnership heretofore existing between J. H. Patrick and Eugene Patrick, of Ilderton, Ontario, as to the management of Fairfield Stock Farm, has been dissolved. J. H. Patrick again resumes full management at Fairfield, and Eugene Patrick taking charge at Lincoln Grove, Tecura, Idaho. -om

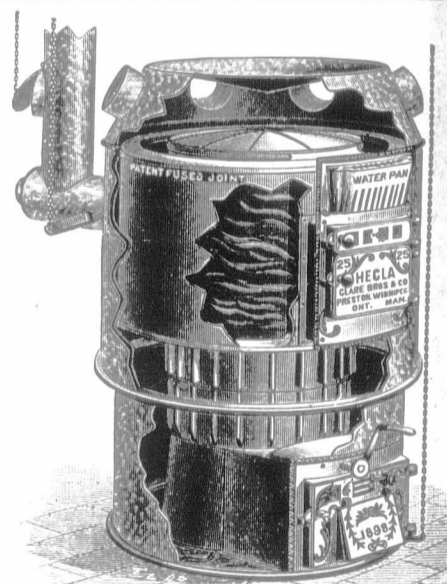
J. H. & E. PATRICK, Ilderton, Ont.

**SHROPSHIRE**

Shearing rams, ram and ewe lambs. Well covered. Good colors. Good individuals. CHESTERS: Bacon type. Litters ready to ship. W. E. WRIGHT, Glanworth, Ont.

**50—SHROPSHIRE FOR SALE—50**

Including 12 shearing rams, 2 two-shear rams, and this year's crop of lambs. Will be ready for the fall trade. Lambs and shearlings are sired by the noted stock ram, Miller's 3402, 11875, bred by John Miller & Sons, and used with good results on the flock of C. Lawrence, Collingwood. Foundation stock were imported from Mansell's, Shrewsbury, England. Fine quality, good fleece, well-covered heads and legs, and skins right. Write for prices. ROWAT BROS., Box 132, Hillsdale, Simcoe Co.; Phelps Station, G. T. R. om



**The Patent Fused Joint**

AS USED IN OUR

**HECLA FURNACE**

is the most valuable improvement in furnace construction in recent years. By means of this patented method we fuse the steel and iron which go to make up the dome and radiator into **ONE SOLID CASTING.** There is no danger of cement falling out, to let the dust, smoke and gas escape into the house. Another feature of the Hecla is that it will burn

**EVERY KIND OF FUEL**

COAL, WOOD OR PEAT.

Send us a sketch of your house, and let us give you an estimate.

**CLARE BROS. & CO.,**

PRESTON, ONT., and WINNIPEG, MANITOBA. om

PLEASE MENTION FARMER'S ADVOCATE.

**SHROPSHIRE** FOR SALE

35 yearling ewes and 30 yearling rams. Also spring lambs of both sexes, well bred and stylish.  
Estate Jas. Cooper, Kippen, Ont.  
HURON COUNTY.

**Fairview Shropshires**

A choice lot of Rams for sale. Sons of winning sires and dams. They are of good size, and best of quality. Just the kind needed to head fine flocks.

John Campbell, Woodville, Ont.

W. H. BEATTIE, Wilton Grove, Ontario,  
IMPORTER AND BREEDER OF  
Shropshire sheep, collie dogs, White Holland and Mammoth Bronze turkeys, and Barred Rocks.

**SHROPSHIRE**  
LAMBS FOR SALE.  
WM. PIERCE, om  
BRINSLEY P. O. ONT.

**BEAVER LINE.**

ROYAL MAIL STEAMERS.

Regular Weekly Service between Montreal and Liverpool.

From Liverpool, Tuesday.	From Montreal, Friday.
June 11	June 28
June 18	July 5
June 25	July 12

First Cabin—Single, \$52.50 and upwards; Round Trip, \$100.00 and upwards. Second cabin—Single, \$35.00; Round Trip, \$66.98 and \$68.88, according to steamer, location, and number of persons in room. Steerage Rates—To Liverpool, London, Londonderry, Glasgow, Belfast, and Queenstown, \$24.50 and \$25.50. Apply to any agent of the line, or to

ELDER, DEMPSTER & CO.,  
6 St. Sacrament St., Montreal.

Agents in London, Ontario: E. De la Hooke, F. B. Clarke, and W. Fulton.

**BERKSHIRES**

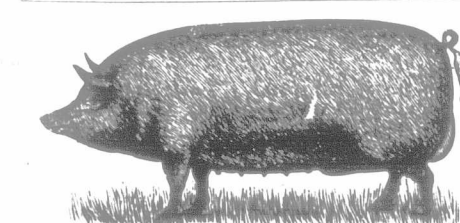
A specialty. Can supply pairs and trios not akin. Various ages.  
MAC. CAMPBELL, NORTHWOOD, ONT.

**LARGE ENGLISH** FOR SALE.  
YOUNG boars and sows carrying the blood of Baron Lee 4th, Bright Star (imp.), Enterprise and Highclere, on Bow Park, Teasdale and Snell females, with Allandale Boy 5875 and Royal Lad 3rd 4307 heading the herd.  
S. DYMENT, BARRIE, ONT.

**Fresh Berkshire Blood**, from the most noted prize herds of Eng. and the U. S., including among others the famous sow, Elphick's Matchless—never beaten, and imported at a cost of nearly \$400. We can offer some especially good young pigs, in pairs and trios not akin, of splendid length and type. Also young sows, bred to good boars. All at very reasonable prices. We are making no reserve for show this season, so our best are for sale. Take Kingston Road electric cars to the door from the city. **DURHAM & CAVAN**, East Toronto, Ont.

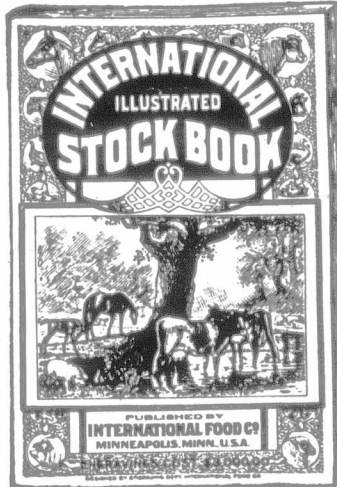
**Large English Berkshires**  
Only a few young sows left, from 4 to 7 months old, bred direct from imp. stock. B. P. Rock eggs, \$1 per setting of 15, remainder of season, from our prizewinning birds.  
H. BENNETT & SON, St. Williams, Ont.

**Chester White Swine.**  
OLDEST ESTABLISHED REGISTERED HERD IN CANADA.  
Choice young stock, 6 weeks to 6 months old. Pairs and trios not akin. Registered pedigrees. Express charges prepaid. Safe delivery guaranteed.  
E. D. George, Putnam, Ont.



One hundred Tamworth and Improved Chester White Spring Pigs of a true bacon type, our herd having won the best prizes offered at the leading exhibitions throughout Ontario and Quebec for the past ten years. Stock for exhibition purposes a specialty. We pay express charges between stations, and guarantee safe arrival of all stock shipped. Pairs furnished not akin. Write for prices.  
H. GEORGE & SONS, Crampton P. O., Ont.

**A \$3000 STOCK BOOK FREE**



We Will Mail You a Copy Free, Postage Prepaid, if You Answer 3 Questions:  
1st.—Did you ever use "International Stock Food" for Horses, Cattle, Sheep, Hogs, Colts, Calves, Lambs or Pigs? 2d.—How many head do you own? 3d.—Name this paper.  
**THIS BOOK CONTAINS 183 FINE, LARGE, COLORED ENGRAVINGS OF HORSES, CATTLE, SHEEP, HOGS, POULTRY, ETC.**

**DESCRIPTION:** THE ENGRAVINGS COST US OVER \$3000 and were made by our own artists. The book is 9 1/2 x 6 1/2 ins. and the cover is a beautiful live stock picture printed in 6 brilliant colors. In Horse Department are fine engravings of Imported Messenger, Mambrino, Abdallah, Rysdyks' Hambletonian, Nutwood, 2:18 3/4; Robert J., 2:01 1/4; Directum, 2:35 3/4; Nancy Hanks, 2:04; Star Pointer, 1:59 1/4; Johnson, 2:06 1/4; George Wilkes, 2:22; Alex, 2:33 1/4; and many others. It contains 20 large engravings of draft and coach breeds. In Cattle Department are large engravings of the leading prize winners, of the different breeds, at the Trans-Mississippi Exposition. Also the Largest Cow in the world, weighing 2970 lbs. and 6 feet tall. In Hog Department are engravings of the different breeds and the latest scientific facts in regard to Hog Cholera. Also the Largest Hog in the world, weighing 1621 lbs. In Sheep Department are extra good engravings of the prize winners, of the different breeds. A special attention is called to the fact that the book also gives a description and history of the different breeds of Horses, Cattle, Sheep, Hogs and Poultry. The Veterinary Department is very practical and contains extra fine veterinary illustrations. It gives the different diseases for Horses, Cattle, Sheep, Hogs and Poultry, and tells what to do for each. The Veterinary Department will be a great addition to your live stock library and will save you hundreds of dollars. You cannot buy a book for \$10 that will give you as much practical information and as many fine colored engravings of noted animals.

We Will Give You \$14.00 Worth of "International Stock Food" if Book is Not As Stated.  
"International Stock Food" is endorsed by over 100 leading "Farm Papers" and is used and endorsed by over 500,000 stockmen and farmers, and is sold on a "spot cash guarantee" by over 20,000 dealers. Your money will always be refunded if it ever fails to make you extra profit in growing, fattening, milking, or in keeping your stock healthy. It is Established 12 years and has the largest sale. Included in the United States Government exhibit at Paris and won the highest award and medal at that Exposition, 1900. The editor of this paper will tell you that "International Stock Book" is one of the best illustrated books ever published. Most of the illustrations are of noted animals.  
Largest Stock Food Factory in the World. Capital Paid in \$200,000.00.  
Answer the 3 Questions and write for this Book to **INTERNATIONAL FOOD CO.** MINNEAPOLIS, MINN., U. S. A.

**MARCH BOARS AND SOWS**

from Thrifty Maid, the sweepstakes sow at Guelph Fat Stock Show, and from Jessie K. and Minnie F. Sired by Advance and French, my stock boars. The pigs are choice, and prices right. **NORMAN M. BLAIN**, Brant Co. om St. George, Ont.

**TAMWORTH SOWS AND BOARS**  
SEVERAL YOUNG  
nearly ready to ship. Also a few ready for service, of both sexes.  
P. R. Hoover & Sons, Green River, Ont.

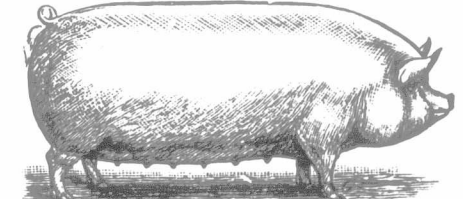
**YORKSHIRES and POULTRY.**  
Eggs for hatching reduced to 75c. per setting for balance of season. We are offering a number of choice pigs, bred direct from imported stock. Prices reasonable.  
A. B. ARMSTRONG, CODRINGTON, ONT.

**Improved Yorkshires** FOR SALE,  
of the most popular families. All ages and both sexes now ready for immediate shipment. Write for what you want. Prices reasonable—consistent with quality.  
E. DOOL, Hartington, Ont.

**YORKSHIRES A SPECIALTY** OF THE IDEAL BACON TYPE.  
Boars and sows from 2 to 3 months old, from large, matured stock. Have only one young sow left, safe in pig, for sale—a choice one. Write—  
JAS. A. RUSSELL, Precious Corners, Ont.

**JOS. FEATHERSTON & SON,** IMPORTERS AND BREEDERS OF  
**Improved Large Yorkshire and Essex Swine** STREETSVILLE, ONTARIO.  
We have some fine young pigs to sell, from imp. sows and by the celebrated boar, Whitton Star. He took first prize at Toronto and London fairs in 1899 and 1900. We have some more imported sows to farrow, bred to him, and have some nice young pigs from our home-bred sows, and got by the imp. boar, Nottingham Monarch, a sire of great promise.

**OAK LODGE YORKSHIRES**  
ARE THE CORRECT TYPE TO BRING THE GREATEST PROFIT.



We breed our winners, and we win more prizes than all other herds combined at Toronto, London, and other large shows. Sweepstakes in bacon classes over all other breeds in dressed carcass competition, also on foot, for two years in succession. Championship carcasses in bacon class at Chicago, 1900. First-prize herd at Toronto Industrial for nine years. Write for prices.  
**Brethour & Saunders, Burford, Ont., Can.**

**Canada's Winners.** EGGS FOR HATCHING.  
Silver Gray and colored Dorkings, Indian Games, Houdans, Minorcas, Hamburgs, Leghorns, Polanders, Ducks and turkeys. Our birds win at Boston, New York, Toronto, London, Kingston, Ottawa, Montreal, Also Ayreshires (bulls and females). For full particulars, write **WM. STEWART & SON**, Menie P. O., Ont.

**Summer Hill Herd**

HEADQUARTERS FOR THE IDEAL BACON HOG AND EASY FEEDERS.  
**ROYAL DUCHESS.** **LOOK ME OVER.**  
The largest herd of imported and Canadian-bred Yorkshires in America. Out of 121 exhibits at the leading shows in '99 and 1900, including Toronto and London, we gained 116 awards. Expert judges both at London and Toronto were unanimous in pronouncing our herd far superior to that of our strongest competitors. Won most of the best prizes offered, including first prize for best pen of pure-bred bacon hogs, also grand sweepstakes over all breeds in a class of 13 entries. The foundation of our herd was laid by personally selecting the choicest stock from the most noted breeders in England and Scotland. We have the ideal bacon type—size without coarseness, and easy feeders. Pigs of all ages for sale at moderate prices. Write us for particulars. Telephone, Millgrove, Ont. Telegraph 254 Bay St. 8., Hamilton, Ont.  
**D. C. Flatt & Son, Millgrove, Ont.**

**EGGS FOR HATCHING.**  
Barred P. Rocks exclusively. Large, strong, vigorous, well-barred birds, from imported stock, bred for utility. One setting of 13, \$1.25; two settings, \$2.00. **A. E. SHERRINGTON**, Walkerton, Ont.

**Built for Business!**  
That's the idea. There's nothing fancy; nothing foolish about them; just straight, practical, lasting, honest goods. The

**CYPHERS INCUBATORS**  
are positively warranted to last TEN YEARS, without repairs, and are guaranteed to **OUT-HATCH**, during three trials, any other make of incubator on the market—bar none. **THIS, OR YOUR MONEY BACK.** Used exclusively at Experimental Farms, Guelph and Ottawa; also six American Experimental Stations. Daniels, the universal provider in the Poultry Supply business, has the sole agency for the Cyphers Incubators and Brooders for Canada. Our list of Poultry Supplies are too numerous to mention here, but just drop us a line and state what you require. We handle nothing but the best. Satisfaction every time, or money refunded. Mention *Advocate*.  
**C. J. Daniels, 221 River St., Toronto, Ont.**

**THE GEM FROST**  
The GEM MACHINE beats them all. 120 rods 10-bar fence in 10 hrs. Coiled Spring and other fence wire for sale, at lowest prices. Write—  
**MCGREGOR, BANWELL & CO.** Box 23. -om Windsor, Ont.



"What we have we'll hold"  
As every man who has purchased Page Fencing knows he has the best Fence on the market.  
"What we hav'nt we're after"  
and if you are in the market for fencing we would like to have you consider the merits of the "Page" Fence. Coiled Wire, made in our own Wire Mill, woven by ourselves. Shipped already to put up.  
**The PAGE WIRE FENCE CO. (Ltd.)** WALKERVILLE, ONT.

**Anchor Wire Fence.**  
(PATENTED SEPT. 7, 1894.)  
The strongest and best fence yet devised. Simply and easily constructed.

The clamp before being used.  
It is made throughout of No. 9 Plain Galvanized Wire, both horizontal wires and cross wires or uprights. The steel clamp securely fastens the horizontal and cross wire, thus consolidating the strength so that the whole fence resists an attack on any part of it. As the strength of a chain is gauged by the strength of its weakest link, so a fence is only as strong as its weakest part. The Anchor Fence is equally strong throughout, and being constructed wholly of large wires, is much stronger than a fence in which small wires are used.  
**ESPLEN, FRAME & CO.,** Stratford, Ont.

**Gem Fence Machine**  
beats them all: 120 rods 10-bar fence in 10 hrs. Coiled Spring and other fence wire for sale at lowest prices.  
WRITE—  
**McGregor, Banwell & CO.,** om WINDSOR, - ONT.

**METAL SHINGLES**  
**METAL CEILINGS**  
ASK FOR FREE SAMPLES CATALOGUE AND ESTIMATES  
Use metal inside and outside and your building will be warm and dry, lightning fire, wind and weatherproof, possessing a beautiful appearance at small cost.  
**METAL SHINGLE & SIDING CO LIMITED** PRESTON, ONT.

**BELL..**  
**PIANOS AND ORGANS**  
 Built to Last a Lifetime by the  
 Largest Makers of Pianos and Organs in Canada.  
**The Bell Organ & Piano Co., Ltd.,**  
**GUELPH, ONT.**

CANADA'S GREAT  
**Exposition**  
 and Industrial Fair,  
**TORONTO, ONT.,**  
 August 26th to September 7th, 1901.

The great live-stock show of the continent. Increased prizes and improved accommodation. Interesting competitions and unexcelled attractions. ENTRIES CLOSE AUGUST 3rd. For prize lists address:

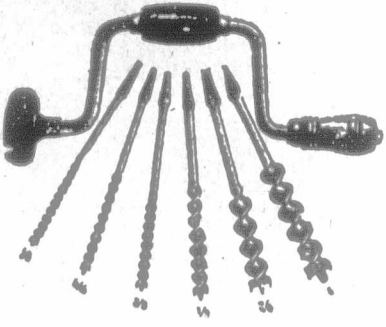
**ANDREW SMITH,** President. **H. J. HILL,** Manager, TORONTO.

**Central Canada Exhibition,**  
**OTTAWA,**  
 September 13th to 21st, 1901.

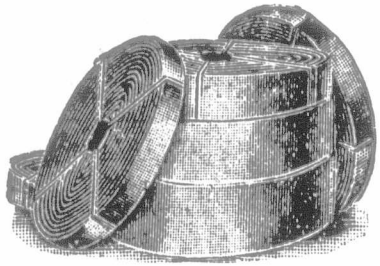
The annual event of Eastern Canada. Evening entertainment and spectacular: **THE SIEGE OF TIEN-TSIN**, showing military costumes of many nations. Entries close 11th September. Write the Secretary for prize list and all information.

**WM. HUTCHISON,** President. **E. McMAHON,** Secretary.

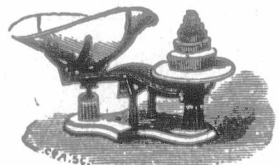
Send for Illustrated Price List.



**BRACE AND 6 AUGER BITS,** only \$1.50, or postpaid anywhere in the Dominion for \$2.00

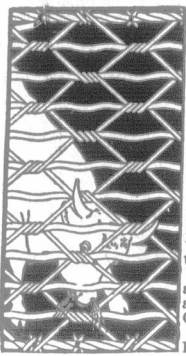


**BELTING, MACHINE OIL** and threshers' supplies at wholesale prices.



**4-LB. BUTTER SCALE,** fully guaranteed, only \$2.50.  
**240-LB. PLATFORM SCALE,** fully guaranteed, only \$5.00.

**Wilkins & Co.,** 166 & 168 King St. E., TORONTO.



**BULL-STRONG!**

**....PIG-TIGHT....**  
 An Illinois farmer said that after he had had fully 200 bushels of loose oats on the ground that he could not secure any benefit from, because the fence around the field would not turn hogs. Figure the loss for yourself. He also said, all this would have been saved if he had used the Kitchman Woven Wire Coiled Spring Fence, and the value would have gone a long way towards paying cost of the fence. With the Duplex Machine any farmer can make it himself at the actual cost of the wire. Catalogue free for the asking.  
**C. O. DAVIS & CO.**  
 Box C-116  
 Freeman, Ont.

IN WRITING  
 PLEASE MENTION FARMER'S ADVOCATE.



**AGENTS WANTED**  
 FOR THE  
**IDEAL STEAM COOKER.**  
 REDUCES FUEL BILLS MORE THAN ONE HALF.

Makes tough meat tender. Prevents steam and odors. Whistle blows when cooker needs more water. Burning or scorching impossible. We pay express. om  
**EXCLUSIVE TERRITORY.**

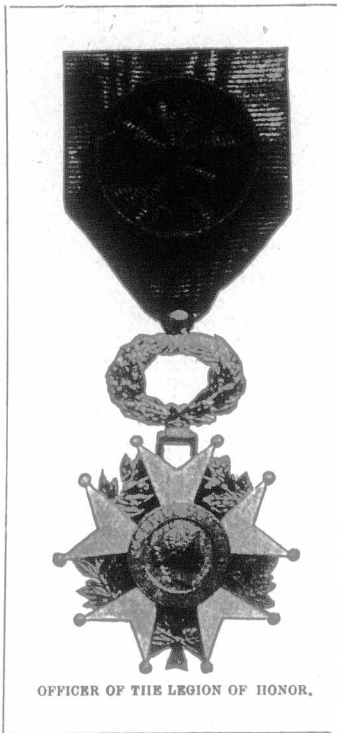
**U. S. SPECIALTY CO.,** 69 Adelaide St. East, TORONTO, ONT.

**LOW PRICE IN WIRE**  
 Fence Building is attracting farmers' and agents' attention. **THE CHEAPEST GOOD FENCE.**  
 "No trouble to answer questions." Rites for free Catalogue.  
**McCLUSKEY WIRE FENCE Co., (inc.)** Box A Windsor, Ont., Detroit, Mich., Birmingham, Eng., Paris, France. Agents wanted

PLEASE MENTION FARMER'S ADVOCATE.

**Honors Enough for a Nation!**

**29**  
**MEDALS.**



OFFICER OF THE LEGION OF HONOR.

**Paris,**  
**1900.**

MORE AND GREATER HONORS THAN WERE EVER ACCORDED AN EXHIBITOR AT ANY INTERNATIONAL EXPOSITION.

**IT PAYS TO BUY DEERING MACHINES.**

**DEERING HARVESTER Co.**

MAIN OFFICE AND FACTORY:  
**CHICAGO, U.S.A.**

CANADIAN BRANCH HOUSES:  
**TORONTO, LONDON, MONTREAL, WINNIPEG.**

**The Wonder of the Age.**

ALL EYES ARE ON THIS INVENTION.

Patented 1893, '95 and '97.

**HARVESTING PEAS**



The Genuine Tolton Pea Harvester with New Patent Buncher at work.

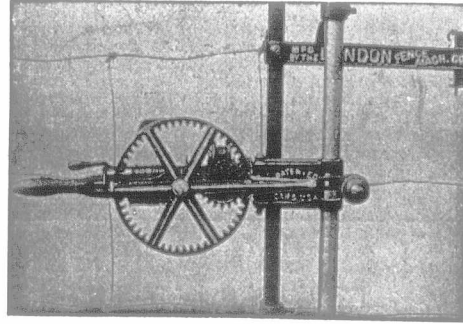
Harvesters to suit all kinds of mowers, with all but self-delivering bunchers. Harvesting in the most complete manner from eight to ten acres per day.

**Every Machine Warranted. Our Motto: "Not How Cheap, but How Good."**

No drilling holes in Mower Bar or Inside Shoe. A wrench is all that is required to attach it to any mower. Give your orders to any of our local agents, or send them direct to

**TOLTON BROS., GUELPH, ONT.**

**LONDON FENCE MACHINES ARE UP-TO-DATE.**



WHEN GETTING, GET THE BEST.

COTTAM, MAY 25TH, 1901.

DEAR SIRS,—Having purchased one of your LONDON FENCE MACHINES this spring, I have used it to build about 250 rods of wire fence, and consider it the best machine I have ever used or seen used for weaving wire fence. I think that any ordinary man, with 2 hours' experience, could weave from 40 to 50 rods a day easily, and I have no hesitation in recommending it to farmers who are putting up wire fence. Yours truly,  
**JAS. W. SHEPARD.**

Coiled Spring Wire, Steel Gates, Wire Stretchers, Reels, Staples, etc.

**THE LONDON FENCE MACHINE COMPANY, LONDON, CANADA.**

PLEASE MENTION FARMER'S ADVOCATE.