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AND HOME MAGAZINE

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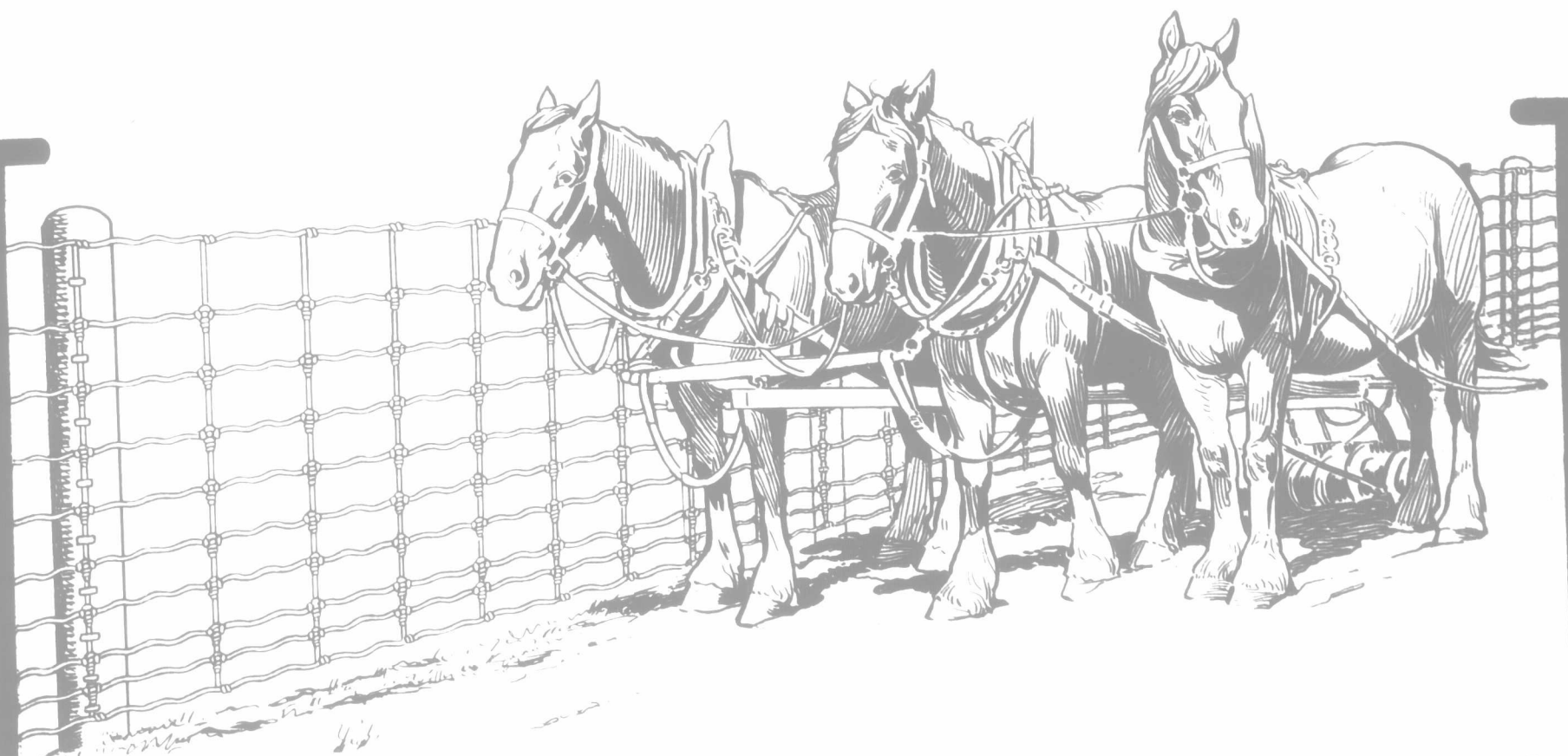
\* AGRICULTURE, STOCK, DAIRY, POULTRY, HORTICULTURE, VETERINARY, HOME CIRCLE.\*

Census and Statistics  
Dept. of Agriculture  
Dec. 31, 1910

Vol. XLV.

LONDON, ONTARIO, DECEMBER 29, 1910.

No. 953



## THE "THREE-HORSE TEAM" FENCE

Just as a three-horse team equals in working-power and excels in economy two two-horse teams—

so does Frost Fence equal any two fences made in the ordinary way. That is why Frost Fence is often called the "three-horse team" fence.

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Or we could cut cost by using wire half a gauge undersize. Half a gauge difference in diameter is hard to detect. Yet it means an added profit of eight per cent. for the manufacturer.

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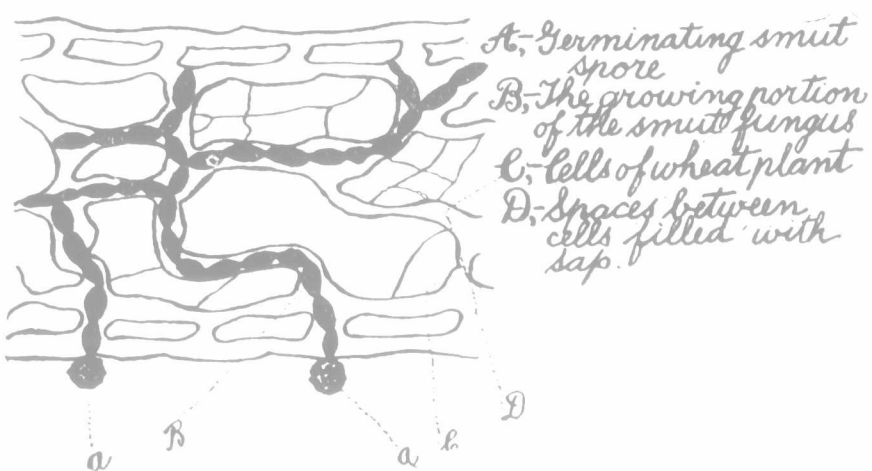
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- A—Germinating smut spores.
- B—The growing portion of the smut fungus.
- C—Cells of wheat plant.
- D—Spaces between cells filled with sap.

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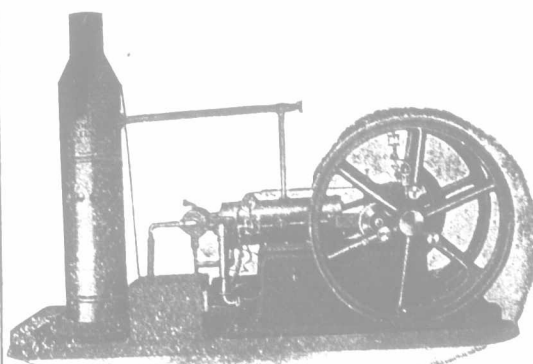
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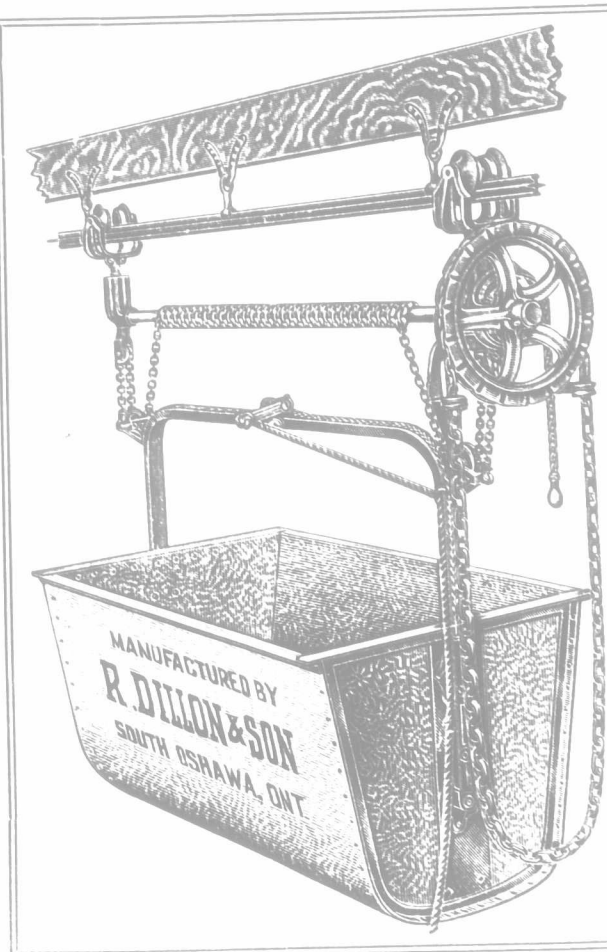
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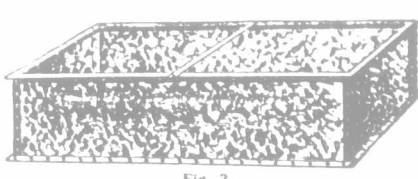


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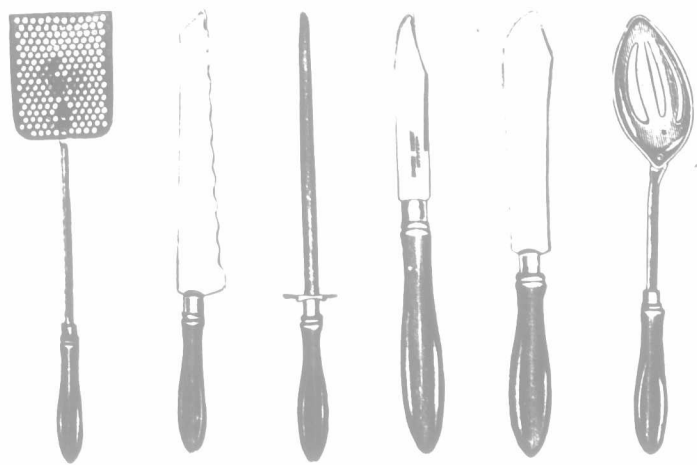


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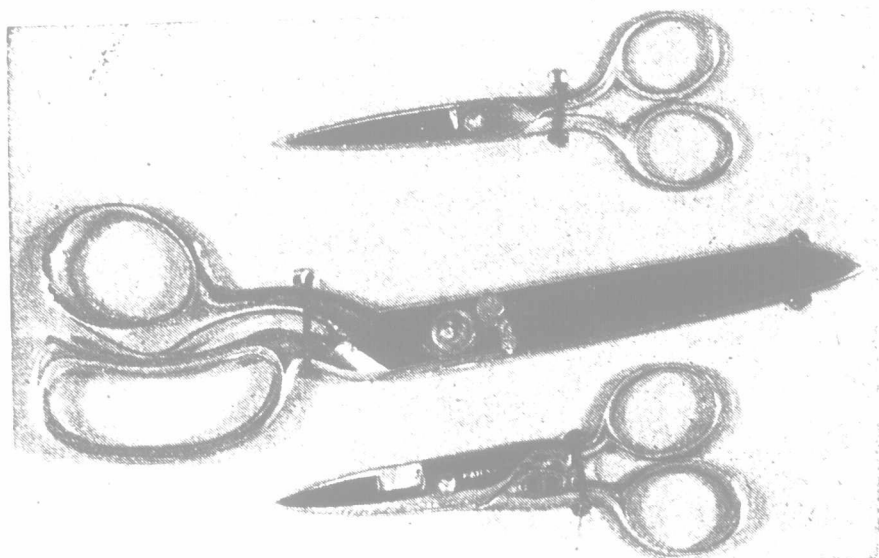
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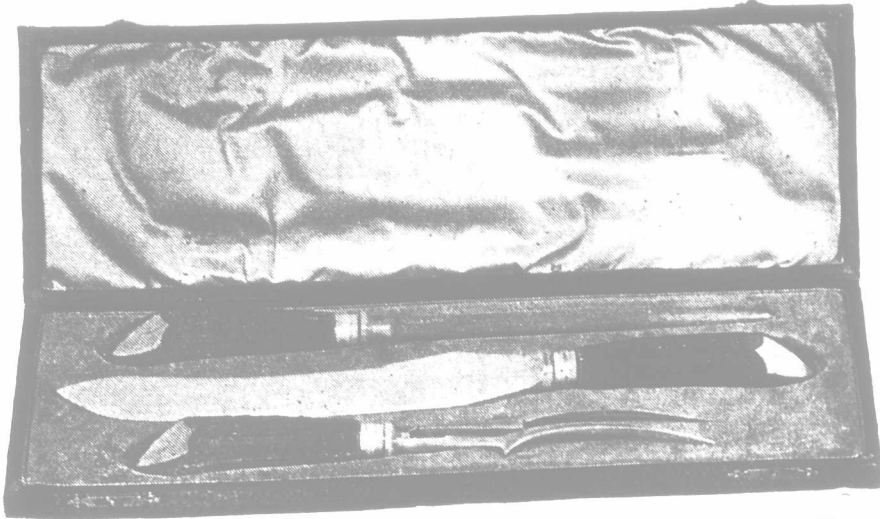
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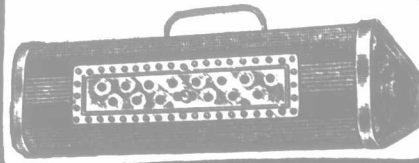
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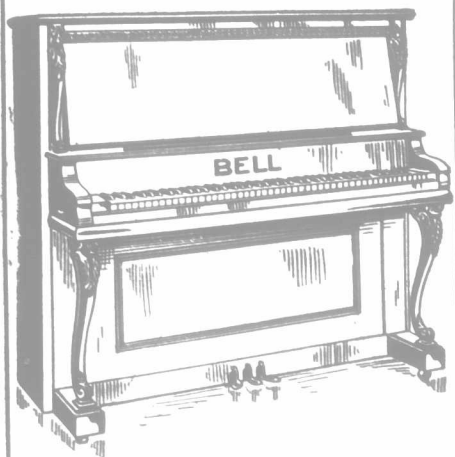
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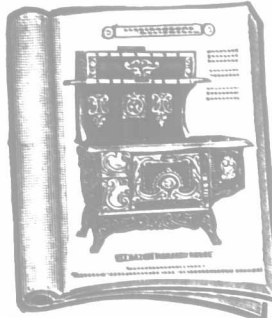
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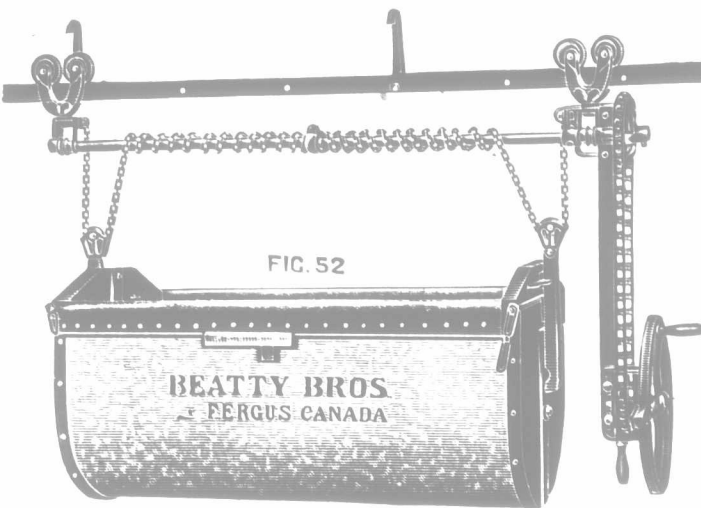
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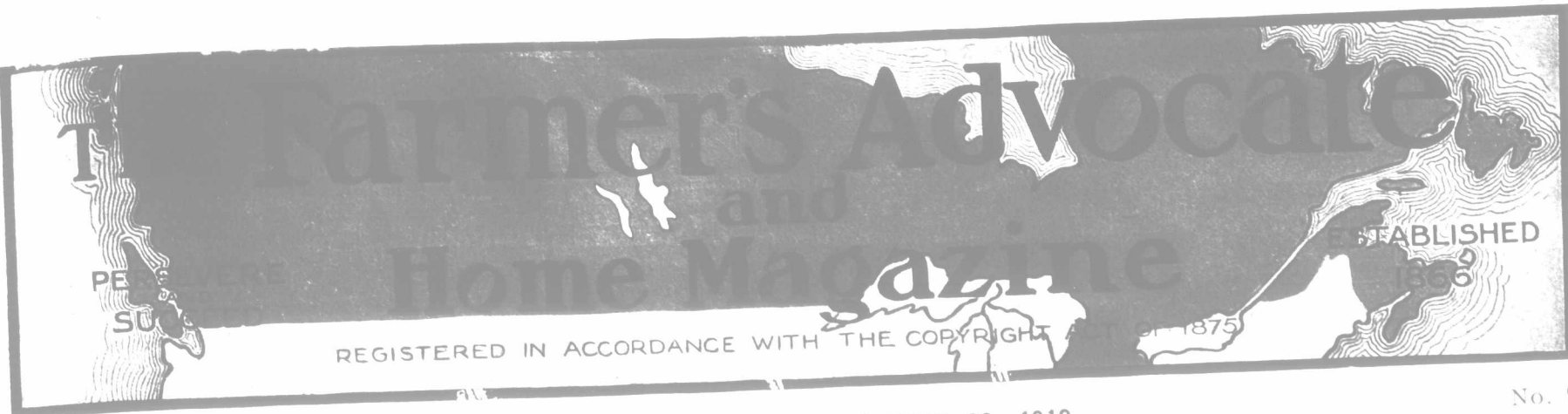
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**EDITORIAL.**

The toad under the harrow knows just where each point goes, quoted E. C. Drury at the Dominion Grange.

One great advantage of the recent delegation to Ottawa is that it will help to take the tariff question still more completely out of party politics—which means party prejudice—and to place it before the people as a simple business and economic question.

Meantime, while tariff and other matters are being adjusted, let us apply ourselves energetically each to his own particular business. Improved methods, with particular attention to labor-saving machinery, will enable us to increase by 25 to 50 per cent. the net annual returns from our farms, without employing an additional day's labor upon the land.

Direct taxation is no bugbear to thinking men. It would tend to economy. If the money required to administer our Government were raised by a more direct method of taxation, the great expenditures of public money would be scrutinized more closely. Of course, we can hardly expect this argument to appeal strongly to politicians. But the people can force the hand of the politician when unitedly convinced and determined.

Sir Wilfrid Laurier seems disposed to undertake not only the Hudson's Bay Railway, but also two great canal projects, the Welland and the Georgian Bay. Would it not be better to concentrate the resources of the country upon the best route, making a canal that will be both deep and broad? One canal is better than two ditches, and a big canal is better than two small ones. A publicly-owned canal, unlike a privately-owned railroad, does not require competitive routes to regulate rates.

Nationalization of the American live-stock pedigree records is looming up as a desirable possibility. One difficulty is that the present records are all organized under State charters, and, so far as we have been able to learn, there is no constitutional provision for Federal incorporation. There are other obstacles, among them the fact that some of the breeds have a number of separate registers each. But the fact that the United States Government can grant an import certificate to a pure-bred animal on the strength of Canadian registration, while it cannot do so on the strength of registration in American books, helps to emphasize the desirability of nationalization.

A reader wrote in the other day, asking us to prove that it is profitable to have one man handle four horses, instead of two. We give it up. Anybody who can multiply one by two, but cannot extend his mathematical faculties to the point of multiplying two by two, is a hopeless soul. At many kinds of work, such as plowing, four horses driven by one man will do twice as much work as a pair, and do it equally well, in some cases better. On farms, therefore, where four or three horses are kept, it is almost as foolish to plow and do similar work with two horses as with one. A man driving two horses accomplishes twice as much as a man driving one; a man driving four does twice as much as a man driving two. Arithmetic can make it no plainer, and arithmetic in this case is supported by experience.

**Tariff a National Question.**

Overshadowing in importance and breadth of interests affected, every other subject discussed by the recent farmers' delegation to Ottawa, was the question of the tariff. The platform adopted and submitted to the consideration of the Government called for:

1. Reciprocal free trade between the United State and Canada in all agricultural, horticultural and animal products, spraying materials, fertilizers, fuel, illuminating and lubricating oils, cement, fish and lumber.
2. Reciprocal free trade between the two countries in agricultural implements, machinery, vehicles, and parts thereof.
3. An immediate lowering of the duties on all British imports to one-half the rates charged under the general tariff, whatever these may be, with extension to Great Britain of any advantages given the United States in reciprocal trade relations.
4. Such further reduction of the remaining preferential tariff as will insure the establishment of complete free trade between the Dominion and the mother country within ten years.
5. A pledge to face direct taxation willingly, in order to make up any deficiency in revenue that might arise from these tariff reductions.

Three principles are involved in this platform: (1) tariff reduction, (2) reciprocity with the United States, (3) increase in the preference to Britain. Let us discuss them in order.

Apart altogether from the question of reciprocity, Canadian farmers ask for reduction of the customs duties as a measure of relief to consumers. It is felt that the time has come when our industries should "stand on their own feet, and not on ours," as a Granger naively expressed it. "Reduction is demanded," said Robt. Sellar, earnestly, not as a favor, but as justice. Experience has shown that, even under competitive conditions, manufacturers have fixed their prices to consumers at or very near the price of a similar quality of foreign goods, plus the duty.

In many cases the raw material of these manufactured goods is imported either free or at a very low rate of duty, so that the manufacturing industry is not merely protected by 15 to 35 per cent. on the value it creates, but is also allowed to collect a profit on the raw or partially manufactured material it uses. Roderick McKenzie, of Manitoba, in his memorial on the tariff question, stated that the tariff schedule of 1907 contained 711 items, of which 221 were free. Of those free items, farmers got the benefit of four important ones, viz., binder twine, barbed wire, cream separators, and corn for feeding purposes. Most arators, and corn for feeding purposes. Most of the other free items are raw material used by manufacturers, and the number of these free items has been since increased. Sir Richard Cartwright has been since increased. Sir Richard Cartwright is quoted as having said, in 1893, that, "If you add together the sum that has been paid into the treasury, and the larger sum that has been extracted from the pockets of the people for the benefit of a few private and favored individuals, you will find that the total for the last fourteen years is hardly less than \$1,000,000,000." And now that our industries have become well established, and might be expected, as a result of competition, to keep the prices of commodities below the level of the tariff wall, combination is being effected, partly with the purpose of preventing that desired consummation. "Since January, 1909," said Mr. McKenzie, "twenty industrial amalgamations have been organized in Canada, absorbing 135 individual companies. While in each case the capitalization of the merged concern is very much larger than the total

capital of the absorbed companies, it is seldom any of this additional capital enters into the business of the new concern. The high capitalization enables the organizations to conceal from the public their real percentage of profits."

For instance, in the mass meeting at Ottawa, Mr. Drury cited the familiar example of the cotton industry, in which there was a strike two or three years ago, investigated by the Hon. McKenzie King. The report of the investigation brought out some interesting facts. The company claimed that lack of sufficient protection prevented them from paying the wages they would like to pay, and had made a cut of ten per cent. in wages, accordingly. In the investigation it was revealed that, while the nominal dividend of the company was five per cent. per annum, it was making equivalent to fifty per cent. on the actual capital invested, as ninety per cent. of the stock was water—as much water as there is in turnips. The wages paid by the cotton combine ran from 98c. to \$1.63 per day; 42.3 per cent. of the help employed were females, 26.6 were minors, and the hours of labor during periods of normal activity were from 6.15 a.m. to 12, and 12.45 to 6, except on Saturdays, when they worked only in the forenoon. "If we were going to do one thing," said Mr. Drury, "that would make the lives of our workmen harder, I would hesitate, indeed. The farmers of Canada are not antagonistic to the laborer; they stand on common ground." This case of the cotton industry is but one example, though an extreme one. He believed, if a Commission of Inquiry were appointed, it would sweep the whole case for protection completely away.

Far be it from our purpose to condemn combination. In many ways it is destined to benefit, eliminating waste. But a combination in a protected country has a tempting opportunity for making excessive profits. With tariff bars down, and markets open to foreign competition, trusts are usually prevented from charging exorbitant prices. With tariff bars up, they have an almost irresistible opportunity of profiting in a greater or less degree.

Relief to consumers being admittedly desired, the question arises whether, in securing this, it might not be possible to secure some advantage to certain classes of our own producers, by availing ourselves of the standing offer of reciprocity in certain lines of natural products and agricultural implements, as contained in the United States Payne-Aldrich tariff. The adoption of this reciprocity plank by the farmers' delegation is a practical recognition of the fact that international trade is mutually beneficial, and that obstruction of it by import duties injures not only the consumer within the protected country, but also, to some extent, the producer without. To that extent, the plank may be construed as an admission of the principle that tariffs are a more or less valuable instrument for securing free access to the markets of protectionist countries.

There is no doubt whatever that reciprocity in agricultural produce would be a vast stimulus to our great basic occupation. Most agricultural products rule higher in the United States than in Canada. The American cities need our food products; we could supply their market to our great advantage. As to reciprocity in agricultural implements and vehicles, there is a little more to be said. "The Farmer's Advocate" believes that Canada has done well to encourage manufacturing. Perhaps our tariff-makers have been overgenerous at times, but it was worth making some sacrifice to build up urban industry.



# THE FARMER'S ADVOCATE

## AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN THE DOMINION.

PUBLISHED WEEKLY BY THE WILLIAM WELD COMPANY (LIMITED).

JOHN WELD, MANAGER.

Agents for "The Farmer's Advocate and Home Journal," Winnipeg, Man.

1. THE FARMER'S ADVOCATE AND HOME MAGAZINE is published every Thursday. It is impartial and independent of all cliques or parties, handsomely illustrated with original engravings, and furnishes the most practical, reliable and profitable information for farmers, dairymen, gardeners, stockmen and home-makers, of any publication in Canada.
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### RENEWAL OFFER EXTENDED!

Thousands of our subscribers have taken advantage of this Special Renewal Offer, but some have written asking us to extend the date for a short time, so they will be able to secure the new subscriber.

We have decided to do this, and will make the offer good till Jan. 15th, 1911.

It is as follows:

For one new yearly subscription and your own renewal for 12 months, we will accept \$2.00. For each new name in addition to the first one we will accept from you \$1.00, the balance of 50 cents being retained by you as a commission. Or, if preferred, you may send in the new names, accompanied by the full subscription price of \$1.50 each (United States subscriptions \$2.50 per year), and take your choice of one of our splendid premiums. These, like the paper, are astonishingly good value.

NOTE.—This is a special offer, good only till Jan. 15, 1911. Speak to your neighbor to-day. Get his name before he has signed for other papers. Roll in the new names now.

Cities have their drawbacks, but they are centers of thought and progress. A community without them is liable to be narrow and provincial in ideas, and offering poor opportunities for genius. And there are other arguments we need not enter into here. We quite agree that our industries should not expect these high tariff favors to be continued indefinitely, and that they should be straightway reborn by a liberal percentage year after year. But we are not convinced that it would be any solution for Canada to handicap her industries by throwing down all tariff bars; at least until the United States does the same. So long as protection is part of our general policy,

it is scarcely fair or expedient to single out any one class of manufacturers to run the gauntlet of complete free trade. Would it not be better to gradually reduce our whole protective tariff to a uniform basis of, say, ten, or perhaps five, per cent., with no exemptions to anyone? This would collect an immense amount of revenue, without affording any great opportunity for extortion. It would eliminate log-rolling from tariff construction, and enable everyone to know where he was at. Is it not possible, also, that the maintenance of such a duty, separating the manufacturers of two countries, would render less likely the formation of a continental harvester trust? Such a trust, if effected, could dictate prices to Canadian, as well as American, farmers, in spite of free trade, for, in this industry, European or other foreign competition cannot be depended upon to regulate prices. To be sure, a ten-per-cent. tariff maintained on implements would not insure positively against such continental implement combination, but we believe it would tend to do so, and, at all events, any manufactured goods then crossing the boundary would pay at least some revenue to the Dominion exchequer. A low tariff often produces more revenue than a high tariff, as under it importations are heavier. In general, the lower the tariff, the larger the percentage of taxation that goes into the Government coffers, and the higher the tariff, the greater the proportion that goes into the tills of the protected industries.

It may be objected that the United States does not offer partial reciprocity in implements. Quite true, but this does not prove that such could not be obtained by negotiation. It is a question whether partial reciprocity, as indicated, would not be better for Canada and fairer to our implement makers than complete reciprocity in agricultural products and implements only.

But, in case such partial reciprocity could not be secured, then we believe our implement industries might safely be asked to run the gauntlet of complete reciprocity. It was at one time thought that our binder-twine industry could not exist without protection. The duty was cut in two, then wiped out entirely, and still we have an important American company manufacturing twine at Welland. We strongly suspect that many of our implement manufacturers would fare better under reciprocity than they anticipate.

Whenever the profits of an industry are artificially expanded by tariffs or otherwise, there are forces at work tending to absorb the surplus earnings. First of all, in the management, there is not the same pressing incentive to skill and economy. Again, experience in many cases has shown that railroads stand ready to levy in increased freight rates a portion of the surplus accumulating. This principle was conversely illustrated at the Ontario Fruit growers' Convention a year or two ago, when E. D. Smith declared that, for Eastern fruit-growers to capture the Western market, it was necessary to secure either higher protection or lower freight rates. Higher protection, of course, would increase the price to the consumer; lower freight rates would not. The easier it is to secure artificial advantages, such as tariff favors, the less the incentive to press for better terms from the carrying companies. The principle has a wide application. High tariff tends to extravagance, reckless management and waste; free trade or low tariff to economy, careful management, and thrift.

Unanimous and emphatic was the spirited repudiation of the assertion that Canadian farmers would like to dicker with the Mother Country a preference on manufactures for a preference on wheat. "In practical patriotism," said E. C. Drury, "Canadian farmers can excel the flag-flapping class a long way. We are not going to hang a rider on the preferential tariff clause of our platform, asking the starving masses of Britain to tax their bread and meat for the benefit of Canadian farmers. But our motives in declaring for the opening of our market to British imports are not wholly unselfish. We want Old Country manufacturers in here to regulate our cotton prices."

Thus, the convention, actuated by motives of patriotism, gratitude and self-interest, all combined, declared for an extension of the preferential tariff and provision for gradual reduction of duties on British imports, calculated to bring about free trade with the Mother Country in ten years' time.

Upon the three cardinal principles of tariff reduction in the interests of consumers, reciprocity with the United States in the interests of our producers, and increased preference to Britain on grounds of patriotism and gratitude, Canadian farmers have a broad, progressive, fundamental platform, on which they can all unite, from East to West. The secretary of the Nova Scotia Fruit-growers' Association endorsed it; the president of the New Brunswick Farmers' & Dairymen's Association did the same; the membership of the Dominion Grange and of the Western Grain-growers' Associations were for it to a man. The president of the Ontario Fruit-growers' Associa-

tion urged strongly the advantage of reciprocity in apples, as calculated to benefit at one time or another both our producers and consumers. Our dairymen would favor it strongly, though they were not heard. Even the small-fruit and vegetable-growers, when they realize how much they have to gain by cheaper implements, living and supplies, will probably perceive the advantage of reciprocity.

Let us not exaggerate or expect too much. Complete reciprocity with the United States, while lending an immediate impulse to Canadian agriculture, would not permanently raise farm profits to the extent that some of us may be led to expect, because wider markets would mean larger production, which, in turn, would tend to satisfy demand, and modify present prices obtaining across the line. It would, however, increase real estate values, and place more people upon the land, thus bringing a train of social and community benefits to our rural population. Cheaper implements, cheaper clothing, and less expensive living generally, will enable our farmers to produce more economically than they now do, with resultant advantages to the consumers in our cities. In short, all our working classes, farmers included, would stand to fare better under a lower tariff.

In the last analysis, therefore, we see that the reduction of tariff burdens is not to be advocated in behalf of this industry or that, but in favor of the nation as a whole, to prevent economic waste, regulate extortion, energize sound, well-managed industries, and allow others to be destroyed by competition; in short, to insure that all the labor employed within the country may be employed in those industries where it can produce the largest result, and that the resulting wealth may be distributed as uniformly and fairly among the masses of the people as inequality in human capacity and attributes will allow. The reduction of the tariff is not simply a farmers' question. It is a national question, and as such should be regarded.

### Promoting Peace.

Coincident with the noble gift by Andrew Carnegie of \$10,000,000 for promoting the world's peace through the agency of The Hague Tribunal, there was delivered at that cosmopolitan seat of learning, Cornell University, a truly notable address by Dr. David Star Jordan, on the subject of "War and Manhood." To take anger out of the counsels of the nations, was described as the greatest political movement of the age. International warfare was the one place where murder was yet legalized. During peace, nations can promote their internal affairs which are neglected in war time, when vast debts are contracted, the burden of which largely falls upon farmers and laborers. The present war debt of Europe is \$26,000,000,000. War has been commonly regarded as the lurid background against which courage and bravery are shown, but Dr. Jordan held that war had no more to do with heroism than horse stealing or burglary. True courage can best be cultivated in the trials and occupations of every-day life—far better than on the battlefield. Not only is war the destroyer of industry, but of nations, for it is the strong and most able that go to fight and die, while the weaker remain at home, and from them the race is descended. Dr. Jordan said that Europe looked to America to lead in the peace movement, and recognized that Canada occupies a unique position. If war strengthened a country, he declared, the world would not look to the United States and Canada for great achievements, but to Venezuela, where wars are incessantly going on. In the face of all these considerations, and the deliverances of friends of humanity—like Dr. Jordan and Mr. Carnegie—the fever of militarism will surely one day be relegated to the archives of things belated and barbarous.

### Rural Interests Inadequately Represented.

At the annual meeting of the Dominion Grange in Toronto this month, J. J. Morrison pointed out that in 1896 a law was passed providing for an Advisory Council to advise the Ontario Department of Education. Of the twenty men constituting this Board, eighteen are professional men, only two of the twenty being trustees, while of these two one is a rural trustee. The trustees on the Board are elected at the annual meeting of the Ontario Educational Association, election being for three years. As few rural trustees attend the Educational Convention, it will be appreciated how little chance they have of being properly represented on the Advisory Council. At the last meeting of the Educational Association, only fifteen rural trustees were present. The Government has been asked to increase the trustee representation on the Council from two to four, but this has not yet been done. It is also asked that the trustees' section of the Education Association receive the same consideration as the teachers' section.



**HORSES.**

The American Hackney Horse Society, at its last annual meeting, decided to hold a show for Hackneys exclusively. The matter has been taken up with the directors of the Madison Square Horse Show in New York, with a view to securing a day during that event devoted entirely to the exhibition of this breed. The result of the negotiations is not yet known.

Some 1,200 Clydesdales were imported to Canada in 1909, and there will be about as many this year. Percherons and Belgians show an increase in importations. Hackneys are not so heavy; a good many of our importers are afraid to bring out Hackneys now, as a large percentage of those imported last year would not record in Canada. The same condition obtains, we understand, in the United States. Our book requires that a Hackney stallion must have three crosses of registered sires; the English book admits stallions with only one or two crosses on inspected dams. A joint committee of three Canadians and three Americans has been negotiating with the English Hackney Society for a year or so now, trying to get the English Society not to encourage the exportation of short-pedigreed horses, and also to record in the English book Canadian- and American-bred Hackneys that are descended from English stock. This would make Canadian and American Hackneys eligible for competition at the Olympia Horse Show. The joint committee, however, is not making much headway in its efforts, about the only thing accomplished to date being the provision of classes at the Olympia in which American and Canadian-bred horses can exhibit.

**The Cost of Horse Power on the Farm.**

**THIRD-PRIZE ESSAY.**

Our horses are kept in most of the year, except about one month in summer, in June and July, when we use them only odd days cultivating the corn, beans and roots, most of our time being taken up hoeing, etc. In winter we seldom use the team. They are not hitched up more than once a week, on an average, and, of course, they are fed differently than if they were working. The winter feeding commences about the 10th of November, and lasts until the 10th of March. At this time they are generally used more or less until seeding commences.

In the table submitted below I have not allowed for depreciation in the value of the horse, or for risk. The custom here with farmers who do not raise their own work horses is to buy at three years old, usually paying about \$200 for a pretty good one, and working it for two or three years and selling. In this way, we do not have old, useless horses on hand, and can mostly sell for more than the price paid, as the horse has reached maturity.

Our winter ration consists of:

4 lbs. oats, at 34c. bush., for 120 days.....	\$ 4.80
1 1/2 lbs. bran, at \$20 per ton—120 days.....	1.80
7 lbs. clover hay, \$10 per ton—120 days.....	4.20
20 lbs. straw, at \$4 per ton—120 days.....	4.80
15 lbs. silage, at \$3 per ton—120 days.....	2.70
<b>Total for winter feeding period.....</b>	<b>\$18.30</b>

Ration for working period:

12 lbs. oats, at 34c. bush., for 215 days.....	\$25.80
2 lbs. bran, at \$20 per ton—215 days.....	4.30
20 lbs. clover hay, \$10 per ton—215 days.....	21.50
On pasture 30 days.....	2.00
Hay while on pasture.....	1.05
Oats while on pasture.....	1.80
One ton straw for bedding.....	4.00
<b>Total cost of feed for working period.....</b>	<b>\$60.45</b>

<b>Sum total feed for one year.....</b>	<b>\$ 78.75</b>
Cost of attention, winter.....	4.50
Cost of attention, working period.....	12.00
Cost of shoeing, working period.....	2.00
Cost of shoeing, winter.....	.70
Interest on investment, \$200 at 3%.....	10.00
Interest and depreciation of harness.....	3.50
<b>Total cost.....</b>	<b>\$111.45</b>

The 20 pounds straw allowed in the winter ration is not all eaten up; enough is left for bedding.

On a 150-acre farm, at least three good horses are required, requiring an investment of \$600 and an expense of \$334.35 for upkeep. Horse-power looks expensive when we get down to figures.

A. A. W.  
Huron Co., Ont.

A set of Staghorn Carvers is yours for sending in only three new yearly subscriptions to "The Farmer's Advocate and Home Magazine." Look up this and our other premiums on page 2071 of this issue.

**A Misleading Record.**

Since the establishment of the Canadian National Records, pedigree registration in Canada has been placed upon a most satisfactory basis, and with but a single exception, so far as we know, there is now only one record in Canada for each breed of live stock. Our old friend the proprietor of the Goderich Studbook, which used to record crosses of Clydesdales and Shires, has ceased to do business. The one exception referred to, as still in business, is the Canadian Horse Register, established by the late King Dodds, and maintained in connection with the Canadian Sportsman, which he edited, and in the files of which all the records are contained. We are not aware that the proprietor of this Register ever claimed that it was a record for pure-bred animals only. We believe the avowed object was to keep a record of the breeding of grade horses with trotting blood in their veins, the progeny of which would eventually be qualified for standard registration, with a minimum of trouble. Disinterested persons have been so unkind as to say that the real object was to make money for the proprietor of the record. The trouble is that many horse-owners do not understand the nature of this record. Many uninformed men assume that registration in this register signifies that a horse is pure-bred. Such is not necessarily the case. So far as we have learned, there is no fixed standard for registration in this record. Furthermore, by countenancing the mixing up of pacing-bred and trotting-bred stock, it leads to confusion, and indefinitely postpones the day when the progeny will be eligible for standard registration in the regular way.

We observe that Jas. A. Livingstone, the present editor of the Canadian Sportsman, is making vigorous efforts to secure registration of horses in the Canadian Horse Register.

As showing the confusion that results from this record being permitted to do business, we quote John W. Brant, Accountant of the National Live-stock Records: "The Provincial Departments of Agriculture in the Canadian West, where stallion-enrollment laws are in force, are receiving applications for the enrollment of stallions with certificates in the Canadian Horse Register. As the only Canadian certificates recognized as indicating pure breeding are the records kept at Ottawa, these Canadian Horse Register certificates, when received by the officers of the Agricultural Departments in the West, are invariably forwarded to Ottawa for examination. In not a single instance that has come under our observation has one of these horses been eligible for registration in either the American Trotting Register or the Canadian Standard-bred Record. Of course, the proprietors of the Canadian Horse Register do not claim that registration in their book qualifies for registration in the American Trotting Register, but innocent purchasers all over the country are buying these horses, supposing them to be Standard-bred."

It may be noted here that the basis of the American Standard-bred Record kept at Ottawa is the American Trotting Register, and its conditions of registration are similar, though the Canadian book will not yet admit performance as a qualification for registration. The difficulty in the way of doing so is that the Canadian National Records Office has no machinery or means for ascertaining and verifying official speed records.

Reverting to the main theme of our article, we

would add that, while trotting-horse men and farmers are at perfect liberty to pay for the registration of grade colts or fillies if they see fit to do so, they must not assume that the Canadian Horse Register has any official standing among pedigree records either at home or abroad. Its existence is misleading to uninformed men, and we believe the interests of Standard breeding would be served by closing it up.

**The General-purpose Horse.**

Editor "The Farmer's Advocate":

The subject of the general-purpose horse and his place at the country show was again up for keen but short discussion at the Winter Fair. John Bright and J. M. Gardhouse handled the question, and, through their wide experiences as judges, were eminently qualified to do so. They analyzed the situation as it now is, and showed it to be as it has been for years; that is, at most shows there is a full classification for general-purpose horses, but there is no regulation or understanding as to the requirements of a horse for his particular class. The speakers pointed out that there was no end to the mixture in these classes, and that it was almost impossible to judge them with any satisfaction. Frequently a man would enter this class on the last minute, in preference to the agricultural or any other class, because he discovered there would be little competition. Messrs. Bright and Gardhouse, however, had no suggestions to offer for bettering the situation. Mention was made that the attempt to solve the matter by exacting a standard weight had proved of little value.

Dr. Grenside seemed to strike the nail on the head when he suggested that, before officers of the agricultural societies and judges could expect the average exhibitor to exhibit his horse intelligently in the right class, they ought to have a clear and definite understanding of the requirements of the class themselves, the qualifications necessary to place a horse in the class inserted in the prize list, and then there would be no excuse for the ignorance and misunderstanding that now exist. It is common observation that one year the expert judge will turn a horse out of this class, which the next year the second expert judge will probably award the prize. This need be no reflection on either judge, the difference in decision being in the difference in ideas of class, and one man's opinion may be worth as much as another's. This question, of course, has been discussed very often at meetings of horsemen, but it seems a regrettable fact that no satisfactory settlement has been made. At Guelph there should have been a representative body of horsemen, and there, it would seem, was an opportunity to turn out something that would serve as a guide in the matter.

The men at that meeting were told that the general-purpose horse was a valuable horse, and had a good market, but it would not be advisable to breed him at all extensively, for the reason that he was something of an uncertainty in breeding, and they might better breed a more suitable, a safer, and a more valuable horse. They were told, also, that the general-purpose horse was bred by mating representatives of some of the lighter breeds with those of the heavy breeds. Therefore, a general-purpose stallion has no breed, and has no place. This no one questions.

The general-purpose brood mare, however,



The Girl's Own Pony.



while, according to the above reasoning at the meeting, is not a reality, should have a class created for her. The argument advanced by one speaker to justify this class of general-purpose mare and colt, was that it would help the exhibit, and, by another, that it would encourage the small boy. The argument of exhibit is a very old one, and has had value, but it has frequently been overdone. It has been used to justify the class for grade bulls, because so many people had one to bring to the fair and make a display. In the case of the mare and colt, since there is a class for the colt, if he has any class at all, both he and his mother will be on exhibition. As for the other argument, the writer recalls that he himself has played the part of this small boy and led his mare into the ring one year, landing the prize, the next year to be turned out with, "You have a good mare, but she is out of her class." And he has shared fully in the confusion of ideas on this class, in which, after all, there was not so much encouragement, but rather more disgust with the fair, and more or less lack of confidence in anything the so-called expert judges might do or say.

This class for general-purpose mare and colt is no doubt doing more than any other thing to mix matters up on this question. It is, moreover, encouraging the use of brood mares which as a class can never do much to raise the standard of horseflesh in any community. In some sections of the country this class, which, of course, is very broad, is a menace to advancement in horse-breeding. It is not difficult to point out sections distinguished for the agricultural or draft horse, but where is the section distinguished for the general purpose horse? Perhaps the great weakness in our county fairs is that they are not educational enough, and, therefore, not fulfilling the purpose for which they exist. A number of them probably are a restriction on agricultural education, for the reason that inferior material is recognized and given a standing, and thereby wrong production encouraged. We are in need of direction in horse-breeding, and in this general-purpose mare-and-colt matter there seems an opportunity for at least one step.

Jacques Cartier Co., Que.

H. B.

## LIVE STOCK.

### Beef-making Business Attractive.

Quite a spirited discussion on certain phases of the beef-making situation was opened with an address by Thos. McMillan, of Huron Co., at the recent Ontario Winter Fair. While not contending that there had been a deterioration in the quality of the beef marketed, he gave some factors whose influence had tended in that direction. Shorthorn breeders had been shipping sires to the Northwest and to the Western States, and had forgotten that the Shorthorn was a milking animal, running to beef, till it was almost impossible to get a sire that could be relied upon to transmit milking quality. Agricultural experts have been preaching that it was impossible to have beef and dairy qualities satisfactorily combined, yet, as a boy, he had handled 20 or 24 cows that were milkers, and some of the heaviest milkers produced some of the best steer calves. He saw the same thing in Ontario and Middlesex Counties, and, if further evidence were needed, we could look to the present experience at Macdonald College, where good beef animals are raised from deep milking Shorthorn cows. At the Wisconsin Experiment Station, in Prof. Carlyle's time, they had a cow of Bates breeding that produced 585 pounds of butter in a year, and gave a steer calf which weighed 1,700 pounds at 32 months, winning third prize in the agricultural college class at Chicago, in 1900. While he did not claim that the dual-purpose animal would represent the highest type of either capacity, the combination was, nevertheless, very useful in a farm cow.

Another factor was that the extraordinary demand for beef the last few years has led to the marketing of many young, unfinished animals. In many sections, owners of Shorthorn grade cows have vealed their calves. We must still preach the doctrine of more-skillful breeding and a better system of feeding and management. We must awaken the enterprise of beef-makers, arouse their dormant interest, and show them the business is not only interesting, but profitable as well. We must follow a system of management and feeding that will bring beeves to early maturity. We want a type of animal with broad, smooth, well-covered backs, while the cows must be able to give milk, and plenty of it. We can have this combination, if we will only try. And we can do it without cross-breeding. It is a serious mistake to cross even animals of the beef breeds, save a first cross, to produce a good individual. Never breed from cross-bred females, and never use the dairy breeds for beef purposes. The young animals should be fed from birth such full rations as will keep them thriving, and through the whole period of growth deposit fat between the tissues of the body. The palates of the people at

home and abroad will always demand those delicious and juicy cuts.

Mr. McMillan is not losing any sleep over the matter of prices. To-day, in many European countries thousands of people have to be content with horseflesh, and they are crying for relief. The recent unprecedented liquidation of beef cattle in the United States, along with the past season's bumper crop of corn, might lead us to expect that prices had gone down to stay, but statistics from the five principal American meat markets for the first ten months of 1910 show that there were only 38,944 more stockers marketed than twelve months ago. The year 1907 was the big year in the stocker and feeder business, and 1909 showed a reduction of 213,712 head from 1907. Then, if farmers in the Canadian West continue along their present lines of farming, the Northwest will soon be one of the best markets for Eastern beef, and he expects in a few years we shall have access to the United States market, the best in the world, lying right at our doors, and open all the year round, a country where more people command incomes of \$10,000 a year and over than any other country under the sun. We have the climate and the people, and can breed the choicest beef found in the world. As the situation is now, we are practically shut out of our market (the United Kingdom) for six months in the year, by the long overland journey that precedes shipment from our winter ports. The American market at our door is large and growing. Access to it would be very profitable, and wouldn't hurt our loyalty, either.

Following Mr. McMillan in the discussion, John Campbell emphasized these two requisites: Get the right quality of cattle, and then carry them on from birth to block so as to get the highest price. The man who raises the steer should finish him, and, on high-priced land it will be impossible to get the best returns unless he is marketed at from fifteen to thirty months, according to conditions.

Good feeding does not imply the use of a great deal of expensive feed. Let us keep in mind the ideal of cheaper production. With plenty of summer feed, grass, rape, etc., he considers it possible to produce weight at a quarter to a third the cost of winter feeding. He knows of nothing else from which it is possible to get such good results as from a rape field, with the cattle having access to long grass. Alfalfa will have, he thinks, perhaps the most important part to play of any fodder save rape. He advocates both. Speaking of dairy Shorthorns, he had had the pleasure the preceding week of viewing a herd of Shorthorn dairy cows at Chicago, in which were three or four as good combinations of milk and beef as he ever had seen at the Royal.

He quoted Will Dryden, recently returned from the Old Country, as saying that in Mr. Duthie's herd he had found no nurse cows to bring along the calves.

The young man to-day in Ontario who goes into the meat-making business, paying particular attention to the principles above enunciated, has prospects for one of the best lines of business in

the Province. Ontario is becoming more and more a manufacturing Province, with the markets such a population affords. Aim, above all things, he urged, to get up the productive capacity of your farms and double the return for your labor.

Mr. Col. McCrae rose to take issue with the speakers, declaring somewhat vehemently that he had no sympathy with having dairying and beef-making on the same farm. We are not anywhere near where we were in beef production ten or twenty years ago. Dairy blood had killed the beef business. Neither Dominion nor Provincial Governments had done anything to push the beef industry. Trenching dangerously on political ground, he proceeded to declare that, but for the British cattle embargo, our finished cattle would be worth \$5 to \$10 more per head than they are now. This started some cross-firing. An inquirer wanted to know whether Col. McCrae would keep the beef type entirely. He replied that he would have the cows raise their calves.

Jumping to his feet, Mr. McMillan declared that admission knocked Col. McCrae's other argument in the head. The cow that breeds the beef animals, he reiterated, with the ring of conviction, must give milk, and plenty of it. Then, as to the embargo, if that were lifted, and our stockers allowed to go over to Britain, the feed would go after them. Nor is it true that our finished cattle would bring \$5 to \$10 a head more.

Col. McCrae retorted that he had been told so by the dealers in the Old Country.

"And I," said Mr. McMillan, "was one of a firm that shipped cattle to Britain for 19 years, and we made more money after the embargo was put on than before."

After which the debaters shook hands.

In the corn belt, most farmers find their abundant and inexpensive corn a feed which cannot be avoided or ignored, nor should it be; but while its use need not by any means be omitted, it should be but moderate, and, as a part of a reasonably-balanced ration. Sows kept for breeding should not herd with fattening hogs kept on corn, but be in pasture and given a supply of slop, such as equal parts of shorts, corn meal and wheat bran. Feeds which furnish considerable bulk are preferable, and those tending to prevent constipation are important.—(From Coburn's "Swine in America.")

The National Records Office at Ottawa continues to do an increasing volume of business. The year 1909 was an exceedingly good one, registration receipts being far ahead of 1908; 1910 will surpass this high-water record, as, up to the first of December, the receipts were already ahead of the whole of 1909. There is a heavy increase in the registration of swine, all breeds showing an improvement, following the decrease of the past few years. The biggest swine increase is in the registration of Yorkshires.



Breed-study Contest: What Breed is This Bull, and Why?

For the correct answer to the above question, supported by the best reasons, and received at our office by January 13th, 1911, we will give as a prize any bull from our list valued at \$1.00.



**Co-operative Wool Marketing in United States.**

The Sheep Commissioners, W. T. Ritch and W. A. Dryden, appointed by the Dominion Department of Agriculture to report upon the condition of the wool industry, and offer suggestions for its improvement, having completed their investigations in the Old Country, have started out through Canada, visiting prominent sheepmen in Ontario first. Prof. H. S. Arkell, of the Livestock Branch at Ottawa, accompanied them recently on a trip to Chicago, where they visited a wool warehouse belonging to the National Wool Warehouse & Storage Co., and obtained from the foreman some particulars concerning the company's organization and character. The company, it appears, is a co-operative one, composed of Western ranchmen from important wool-producing States like Montana and Idaho, who were apparently unable to obtain generous terms from the local or wholesale buyers, commission and other charges eating up too large a share of the returns. A few years ago, these wool-growers, who had a good deal of financial backing, organized themselves into a joint-stock company, and are now handling about 20,000,000 pounds of wool per year, holding their product when necessary for favorable prices, and selling direct to the trade. It is said that the prices obtained compare proportionately with the regular wholesale dealers' prices in Boston. The wool-grower who markets his wool through this company, receives a certain amount of money in advance of the sale of his wool, being charged interest on the amount so advanced until such time as the wool is disposed of, when the proceeds are struck on a pro-rata basis, and forwarded to the producers, less the amount advanced. So far as could be learned, the wool-growers seemed to be well pleased with their returns, and it is believed that the experience of this company offers a suggestion of value to Canadian wool-growers. Fuller particulars are to be obtained for the Sheep Commission's official report.

**Skim-milk-fed Baby Beef.**

The question of profitable beef production is one of almost universal importance. Under the conditions in a few neighborhoods, it is still profitable to turn beef off at from thirty to forty months of age, but in many sections, and their number is constantly increasing, more intensive conditions, increasing the price of land and the cost of production, are making the earlier methods unprofitable. In these sections beefmaking is either being abandoned or readjusted along new lines, wherein twenty to twenty-four months, and in some cases less, becomes the marketing age of the steers.

This production of baby beef is receiving the study of the experiment stations and the practical feeders. The Michigan Experiment Station has recently completed quite a comprehensive investigation of this method of beef production, the results of which, as summarized in Bulletin 261, are presented here:

The experiment started in 1905, and ran till the summer of 1909.

Two herds of ten grade cows each were used, the calves from one herd being nursed by their dams, also receiving supplementary feed, and after weaning were finished and marketed as baby heaves at eighteen months of age. The calves of the other herd were weaned at birth, reared on skim milk, with supplementary feed, and finished and marketed with the other lot, while their dams were milked. The first lot of calves were by a Shorthorn sire, the second crop by a Hereford, and the third by an Angus.

**RESULTS OF THE FIRST YEAR**

The calves which were allowed to nurse their dams consumed, up to 18 months of age, on an average, 2,986 pounds silage, 1,446 pounds hay, 175 pounds roots, 241 pounds beet pulp, 2,260 pounds grain, making the average cost of feed \$32.57 per head at 543 days. Their average weight was 937 pounds. The average cost of feed for the dams of these calves for one year while suckling calves was \$33.47, making a total cost of \$66.04 per head for these heaves, and the cost per cwt., \$7.04. The selling price, as sold in the market, was \$5.00 per cwt.

For the hand-raised calves, the average amount of feed consumed from birth to marketing was: Whole milk, 416 pounds; skim milk, 3,012 pounds; silage, 3,322 pounds; hay, 1,754 pounds; roots, 224 pounds; beet pulp, 217 pounds; green feed, 235 pounds; and grain, 2,183 pounds, making the average cost per head \$43.35. The average weight at this time was 918 pounds, which compares favorably with the other lot, since they were a month younger at the time of marketing. The cost of production for this lot was \$4.72 per cwt., which was \$2.32 per cwt. cheaper than the other lot, while they sold at the same price of \$5.00 per cwt. During the year, the cost of feed for the dams of these calves was \$34.65 per head, and they yielded on an average 5,330 pounds of milk, which yielded

\$58.19, or a profit of \$23.54 over the cost of feed.

**SECOND AND THIRD YEARS.**

The second crop of calves that were nursed by their dams weighed 1,016 pounds each at marketing, at a cost of \$6.44 per cwt. The skim-milk-fed calves averaged 982 pounds at eighteen months, at an average cost of \$5.42 per cwt., with an average profit of \$27.70 from the milk of their dams.

The third crop of suckled calves averaged, 1,032 pounds at marketing, at a cost of \$6.78 per cwt. for production, while their skim-milk rivals weighed 999 pounds each, at a cost of \$5.51 per cwt., and a net profit from their dams of \$30.60.

All the second crop sold at \$5.75 per cwt., locally, and \$6.85 in the Detroit market.

The third crop all sold at \$6.15 locally, with no distinction between the lots.

From these figures, it would seem safe to conclude that baby-beef production by the skim-milk method is much cheaper, and gives better results than by the suckling method," says the author of the bulletin. The skim-milk-fed heaves, for the three years, cost on an average of \$50.60 per head, while the suckled heaves cost \$66.97 per head, or the former were produced for \$1.50 per cwt. less than the latter.

"It is hard to get rich on a multiplication table," says Uncle John Hagatt, of Prince Edward Co., with reference to calculations on the profit of feeding hogs.



**Two-year-old Shorthorn Heifer, Mystery.**

First prize and Shorthorn champion, Birmingham Fat-stock Show, and reserve grand champion at Smithfield. Property of His Majesty the King.

**THE FARM.**

**Mr. Hanna on Co-operative Associations.**

At the meetings to the general public during the recent Winter Fair, at Guelph, one of the most popular addresses was that of W. J. Hanna, Ontario Provincial Secretary, upon co-operation. Not every speaker can handle a generally-discussed and vitally important subject in so entertaining a manner as did the genial Provincial Secretary. Beneath his irrepressible characteristic humor was expressed the conviction that co-operative associations afford the opportunity to each man of being benefited by his neighbor's experience, and thus making possible every man's success. He emphasized the advantages which come from distinctly identifying the producer with the article marketed, and thus giving him the credit for the kind of article which he produces. It not only obtains an enhanced price for products, but it builds up a market and assures a permanent outlet at these higher prices, by delivering satisfactory goods. Failure through lack of co-operation was pointedly illustrated from the bacon-hog trade. Farmers accepted the teachings regarding bacon type, and throughout the country produced largely this desired type; but at the loading points the producer of the fat hog and of the ordinary hog received the same prices, and all were loaded into the same car. Had co-operation been in vogue, the producers of bacon pigs would have been able to produce a finished-meat product of such superiority as to guarantee them a market, and have rendered permanent the production of high-class Canadian bacon and bacon hogs.

Have you read our premium announcement on page 2071 of this issue?

**Silo Experience.**

That corn will grow successfully over a very large part of Eastern Canada, is being proven by success in nearly every county of Old Ontario, and many sections of Quebec.

In the Ottawa Valley, Peter White filled two silos this fall with about 180 tons of green corn, off 10½ acres. These silos, by the way, are one of wood, and one of cement. The wooden silo was built some years ago, with two thicknesses of boards, and tar paper between, and elm staves. It was solidly erected on a cement foundation. The cement silo, 16 x 32, was built at a cost of a little over \$300, stone on the place being used to reduce the amount of gravel and cement. It was plastered, and washed on the inside, and has given excellent satisfaction, the silage having kept better in this than in the wooden silo.

The corn matured fairly well, and is coming out in nice condition.

**Oils and Oiling.**

Editor "The Farmer's Advocate":

As we sit by the fire during the long winter evenings, reading "The Farmer's Advocate" and studying the bulletins sent out by the Guelph and Ottawa Experiment Stations, we are given a splendid opportunity to reflect on the successes and failures of the past season, and, best of all, we have the time and chance to plan for the future. Wherever there has been friction or wear in the past, whether in the field or in the house,

let us try to remove it in the future. For this purpose, nothing is more useful than plenty of oil of the right sort. To-day I would write of the variety to use on farm machinery. Some of the older-married men would, perhaps, tell us of the kind to use on the wheels of the domestic machinery, in order to avoid trouble.

A friend of mine was complaining of the gearing of a certain make of wind-mill wearing out. "How often did you oil it?" I asked him. "Oh, three or four times during the summer," he answered. "It served him right to have to buy repairs; he should have oiled it at least every two weeks, and kept the oil cups reasonably full. How often we see binders, mowers, rakes—in fact, every piece of farm machinery—sent to the scrap-iron heap after a very short term of service. Lack of oil and lack of shelter are the two principal causes of this loss. Plenty of oil, applied at frequent intervals, is a sure way of having a short repair bill at the end of the season. Every implement with wheels should carry an oil can. Dust-proof boxings holding roller or ball bearings go a long way towards lessening draft and friction, but even these must have a fair share of oil or grease.

The quality of oil used is also of great importance. The ordinary stuff sold by grocery and hardware stores as "machine oil" or "harvester oil," when used during our hot summer season, is little better than greasy dishwater. It costs anywhere from thirty to forty cents the gallon, and is dear at the price. This stuff, when kept for a length of time, is liable to separate into two parts: one, a thick, sticky mess, settles to the bottom, the remainder floating on top, has become so thin as to be worthless. Even when oil of this sort is fresh from the manufacturer, it has not body enough for machinery during the hot season. It runs off the axle after a few revolutions of the wheel, and the bearing is soon dry again. During the past summer I used cylinder oil, with good satisfaction. Less oil and less frequent applications are necessary than when ordinary machine oil is used. A fair quality of cylinder oil can be obtained in gallon cans for seventy-five cents the gallon. When the character of the bearing and oil-cup will permit, axle grease makes a good lubricant. It will outlast most oils. The common black oil used by threshers is superior to the common machine oil, but is rather dirty to use. It can be bought for about twenty cents the gallon. For oiling machinery during the cold weather, common machine oil is satisfactory; if cylinder oil is used, it must first be warmed, or it will not flow. When using cylinder oil, it is advisable to cut an inch or over from off the top of the oil can spout, in order to allow the oil to run more freely.



A little oil rubbed over the mouldboard of the plow, and the knottor and needle of the binder, may save a lot of time and bother the following season.

Last summer I used some cheap machine oil to brush over the horses during fly time. When lightly brushed over the hair, it kept the horses free from annoyance by flies for the day. It did not appear to injure the hair in the slightest degree. More oil of the right sort, applied at reasonable intervals, results in less friction, lighter draft on the horses, fewer breakages, less expense, less bother. Rather worth the while, is it not?

Middlesex Co., Ont. W. E. WILLIAMS.

### Clover-seed Production in Ontario

The first of the meetings in connection with the Guelph Winter Fair was held in the lecture-room on Tuesday, December 6th, at 2.30 p. m. This meeting was a seed meeting, and was addressed by three of Canada's best authorities on the subject. In the absence of Hon. J. S. Duff, J. Lockie Wilson took the chair, and, after a few introductory remarks in reference to the importance of good seed, shown by an illustration of a man who in four years had by selection produced from one potato 200 bags of fine tubers, he introduced T. G. Raynor, of the Dominion Department of Agriculture, as being one of the men who were doing much for the improvement of the seed industry to-day.

Mr. Raynor spoke on clover-seed production in Ontario, and laid particular stress on the spread of noxious weeds throughout the Province. He drew attention to the literature pertaining to weeds and weed seeds that was available to the public, as well as any who cared to write for it. It included cards, which, if signed and sent to the Department at Ottawa, on receipt of same, the person sending them will receive the bulletin or information required, such as copies of the report of the Canadian Seed-growers' Association, the Seed Control Act, reports of experiments, etc. He also drew attention to the large, illustrated bulletin, entitled, "Farm Weeds," which may be had by sending \$1.00 to the Superintendent of Stationery, Printing Bureau, Ottawa. He also showed a tray of seeds, which can be put up at a cost of \$2, and contains all the noxious weed seeds in such a form that farmers may become familiar with them.

In speaking of noxious weeds, he spoke at some length of buckhorn or ribgrass, and demonstrated how to separate it from common clover seed. The method consists of placing a layer of cheese-cloth over an ordinary fanning-mill sieve, and, after dampening this, the seed is thrown on and allowed to dry. The longer it dries, the tighter the buckhorn will stick, and the clover seed will loosen, and can be easily shaken off after about thirty minutes.

He stated that money from red-clover seed is looked upon by farmers as a present, because the seed is usually obtained from the second crop. He estimated the acreage seeded to clover each year in Ontario at 1,075,000 acres. The area producing clover seed is confined to that part of Ontario up to a line drawn between Kingston and Georgian Bay. At two bushels per acre, the production would be 2,150,000 bushels, if all the area seeded each year were also used to produce seed. Only 150,000 bushels are exported, and probably an equal amount is retained at home. Thus, he showed the opportunity for an increase in production of seed.

The Minister of Agriculture authorized the selection of a number of men the past season, twenty-eight of them in twenty-six counties. These men inspected 15,996 acres of red clover, and proportionately large areas in the other clovers. Their report states that on 184 farms the clover fields inspected were clean, or quite clean; 1,707 could be easily made clean, and only 112 were too dirty to leave for the seed.

He impressed on his hearers the importance of clean, plump seed. Color is not so important, but dark-purple seed is preferable. Farmers were requested to send representative samples of their seed to the Seed Branch, Department of Agriculture, at Ottawa, where it is carried free through the mails, and the work is done free of charge, and they will report on the same. He impressed upon those present the necessity of sending representative samples, taken from several bags, and placed in an envelope and carefully sealed. In this way they can become familiar with the weed seeds, and the plants can be recognized by use of the illustrated bulletin, a copy of which should at least be found in each public school. He advocated sowing clean seed on clean fields, viz. fields which had been hoed the previous year. He also advocated shallow plowing of the hoe-crop field, if plowed at all, previous to seeding with clover, because deep plowing brings up weed seeds from below.

The amount of seed of red clover to sow to the acre he recommends at 4 to 8 bushels, according to the richness of the soil; the poorer the soil, the more seed required. Seed should be sown to drop ahead of the grain drill, and the soil should be in fine filth as possible, by harrow-

ing after the seeder. Sow as early as possible, especially where it is sown on fall wheat or rye.

Alsike should be sown, if grown for seed, at the rate of 6 to 7 pounds per acre of heavy soils, which are best adapted for producing alsike seed. If for hay, much less will be sufficient—2 to 3 pounds per acre. He pointed out that most of the weed seeds found in samples of small seeds were found growing on the killed-out portions of the field. These places should be cut with the scythe, and ribgrass, where present, should be spudded out. Bladder campion and ribgrass are considered by Mr. Raynor to be two of the more common weeds in Ontario found in red clover seed crops, and bladder campion is one of the very worst weeds to fight anywhere. Spudding out after the hay crop is removed, he recommended as the best remedy for the ribgrass; and spudding out, and the use of salt on the roots, he stated, would exterminate bladder campion.

A lively discussion followed, in which many important questions were answered. Mr. Raynor stating that clover seed should always be sown deep enough to get moisture; that there is always a market for good clean seed, and that the producing of clean seed is in the hands of farmers, who could improve it by cutting and pulling the weeds from their clover fields. The importance of the bumblebee was pointed out, and the knowledge of its benefit, he said, should be instilled into the minds of school children as the best remedy. For black medick, he suggested sheep, and for clover midge, early cutting of the hay, or pasturing up to June 20th.

### Couch Grass Eradicated.

That couch grass can be pretty thoroughly eradicated from fields without losing the use of the land for the season in summer-fallow, has been demonstrated in a good many instances. Where a crop of corn is grown and thoroughly cultivated, couch grass or any other perennial weed gets a pretty hard rub. Peter White, of Renfrew Co., had a field three years ago which was quite full of couch. After taking off a crop of peas and oats, he plowed so lightly as to barely catch under the roots, then put on the spring-tooth and chisel-tooth cultivators, raked up five to ten wagon loads of roots, and burned them. Then took every other tooth off of the chisel-tooth harrow, and the center row out of the spring-tooth, and cultivated to the full depth of the plowing both ways of the field, then put on a scratch harrow to expose the roots and turn them up to the sun. The cultivators were run over two or three times after this, and the last cultivation was just previous to a frost, which seemed to be just as effective in destroying the roots as a hot sun.

The field was manured heavily during the winter with manure drawn direct from the stables.

In the spring, after plowing and cultivation, it was planted in corn, hills 34 inches apart each way, and, during the growth of corn, cultivated both ways.

After the corn crop was taken off, the field was plowed in the fall, and next spring cultivated and put to oats, and seeded to red clover, alsike and timothy, in the proportions of three parts red

clover to two parts alsike and one part timothy, about ten pounds of the mixture to the acre.

This season, forty-three tons, by actual weight, of hay were taken off the field, which contains 16½ acres, and the weed, Mr. White informs us, has been practically exterminated.

He is experimenting with another field now out of sod, and promises us the results of this next season. He considers it questionable whether it is any advantage to draw off the roots, and whether it would not pay to leave them on for the humus there is in them.

### Commercial Fertilizers on Mangels

Editor "The Farmer's Advocate":

The past waste of soil fertility and the growing complexity of farm operations, tend to lead the agriculturist to look for some means of restoring what has been lost, and to simplify the problem of increasing the live-stock capacity of the farm. Up to the present, commercial fertilizers have been looked upon as a commodity for the use of market gardeners and those engaged in highly intensive work. That the farmer may find profitable use for them in certain cases is being more and more clearly demonstrated, and the following results with mangels, obtained on a Prince Edward County farm during the past season, seem to add testimony to the fact. It is a noteworthy fact that, while some Canadian farmers have used fertilizers without appreciable result, others have found them profitable as a supplement to farmyard manure.

The test covered three-quarters of an acre of gravelly clay loam, selected for its suitability, without regard to rotation. The land was manured heavily during the winter of 1909, and produced a crop of potatoes that season. The mangels were sown on April 15th, 1910—three plots of one-quarter acre each. Plot No. 1 received no fertilizer. Plot No. 2 received 40 pounds muriate of potash, 100 pounds acid phosphate, and 40 pounds nitrate of soda. Plot No. 3 received the phosphate and nitrogen only, at the same rate as Plot No. 2. The potash and phosphate were applied April 5th and 8th, and the nitrogen on May 31st, after the plants were well started. The crop was harvested on October 20th. Uniform plots, each two square rods in extent, were harvested separately, and the crops weighed. The unfertilized plot yielded at the rate of 656 bushels per acre. Plot No. 2, with the three fertilizers, at the rate of 1,112.66 bushels, and Plot No. 3, with nitrogen and phosphate only, at the rate of 953.33 bushels per acre. The cost of the fertilizers per acre on Plot No. 2 was \$12.80, and on Plot No. 3, \$8.00 per acre. Estimating the mangels at 10 cents per bushel, and deducting the cost of the fertilizer, there is a profit of \$33.86 per acre from the use of the nitrate, phosphate and potash, and of \$20.93 from the use of the nitrate and phosphate. It will be noticed that the use of potash, at a cost of \$4 per acre, gave a profit of \$8.93. It is possible that, as we become more familiar with their use, and learn to know the requirements of our soil better, that commercial fertilizers will take a larger place in our farm operations than they do at present.

EXPERIMENTER.



City or Country Life for the Graduates of Our Schools?

At the parting of the ways stands the rural school. Let the education obtained there meet the needs of our children and the city may call many in vain.



### Drainage Surveys Popular.

That many farmers in Eastern Canada are earnestly alive to the immense advantages of tile drainage, is shown by the rapidly-increasing demand in Ontario for the drainage surveys made by the Physics Department of the Ontario Agricultural College. These surveys are made, and a plan given the owner of the farm, at no charge to the individual, save for the expert's travelling expenses; and, as his railroad fare is only one cent a mile, the cost of this valuable service is ridiculously low. It is certainly being appreciated. Prof. Wm. H. Day, head of the Physics Department, tells us his staff has done more drainage surveying this year than in all the previous years since the work was commenced. Engaged in the work were ten field men, three draughtsmen, and one supervisor, besides two stenographers kept busy with publicity work. Nor does the influence of the work end with the individuals whose farms are surveyed. Advantage is taken of the opportunity to hold local drainage meetings, with field demonstrations. One hundred and thirty-two of these have been held this year, with an average attendance of twenty-four interested auditors and spectators. Thus is the good seed sown, and thousands of additional men interested in an investment which most farmers who have experience declare will be repaid in from one to three years, depending upon the seasons, the soil, and the kinds of crops raised. Prof. Day has been collecting data as to the past season's output of the tile-yards, and informed "The Farmer's Advocate" recently that 68 out of 150 yards had already reported. Most of these showed a larger make, the average net percentage of increase being 28.2. At this rate, the year's output should be about thirty-five million tile, which, if all used in field work, would drain seventy-five thousand acres.

## THE DAIRY.

### Ideas of Maine Dairymen.

At the annual meeting of the Maine State Dairy Association, Prof. H. D. Evans, Director State Laboratory of Hygiene, spoke of dirt that can be seen and the sources from which it came, then, taking up bacteria, he called it dirt that could not be seen. It was an accompaniment of visible dirt, and was more dangerous because a menace to health, especially in the case of infants. A healthy cow, cleanliness at every step, and cold, were the chief agents in keeping down bacteria, and involved the expenditure of time, rather than money.

Dr. George M. Whittaker said that, in recent investigations, cost of keeping was estimated at anywhere from \$32 to \$102, production varied from 3,000 pounds to 10,000, and cost of a quart of milk was from three to ten cents. His advice was: "Get busy with the common cows; weigh the product, study economic feeding, and keep no unprofitable cows." Middlemen were sometimes necessary; he would not advise the producer to market his own product, unless he could do it at a profit over the cost.

By weeding out the "boarders" by means of scale and test, Rutillus Alden had built up a herd of thirty cows that would pay him a gross income the present year of \$3,000. His average butter production per cow was 375 pounds, and he hoped to raise it to 400. Two cows give 500 pounds of butter per year now.

The Association passed resolutions in favor of establishing demonstration work on farms in the various agricultural sections as part of extension work; continuing the judging contests in live stock and agricultural products at agricultural fairs, and the slaughter of tuberculous animals at the State Fair for educational purposes; the installation of minor agricultural courses in secondary schools of the State; endorsing the work of the cow test and local breeders' associations, and extending it as fast as possible; appointing a committee to act with that of the Live-stock Breeders' Association to act as a legislative committee on all matters relative to securing a new law for eradication of tuberculosis and other contagious and infectious diseases of our domestic animals. M. B. A. Maine.

**EIGHT MONTHS' CREDIT.**—Any subscriber may have the date on his own label advanced 8 months by sending us the name of one new subscriber to "The Farmer's Advocate and Home Magazine," accompanied by \$1.50. Look up our special renewal offer on page 2071 of this issue. You will note that the date of this offer has been extended, and the reason why. Secure your new name NOW, before someone else gets him.

### The Milking Machine in Use.

Because of the scarcity of efficient help, and particularly of good milkers, those in charge of dairy farms where many cows are kept naturally turn their attention to the milking machine as a sanitary apparatus that may serve to keep down the cost of production. In the 100-cow herd of the Clifton Springs Sanitarium farm, Ontario County, N. Y., six B.-L.-K. milking machines were installed some time ago, and have been given a very rigid trial, checked by a bunch of hand-milked cows. W. A. Fitch, the farm manager, a dairyman of extended experience, says he was guided, to a considerable degree, in deciding to try the milking machine upon the favorable advice of the New York Experiment Station at Geneva. The necessary power is furnished by a three-horse-power gasoline engine. During December, about 75 cows, in all, were milking, a good many being strippers. Each machine milks two cows at a time, and, by the watch, from start to finish, the milking of two cows occupied about ten minutes, after which they were stripped by hand, which is necessary. With experience, one man can look after three machines. In a herd of this size, one will be required to carry away the milk, and another to do the stripping. Considerable manipulation of the udder is done, especially toward the close of the operation; more in case of some cows than others. With some cows the udder will appear to be well milked out, and yet, in a few minutes the stripper will secure a half pint of very rich milk. As a rule, cows take kindly to the machine, as it is not noisy, and the cups fit comfortably, and there is little or no trouble with heifers that have not been educated in the hand-milking process. After milking, great care

tageously. At noon, a feed of dry corn fodder or clover hay is given. The cows are turned out once per day to drink from tank; if very cold, the water is warmed slightly. Watering twice per day was tried, but was not found advantageous.

### Once Again Profits from Dairy Cows.

Editor "The Farmer's Advocate":

Will you kindly allow me space in "The Farmer's Advocate" to make a few remarks on the criticism I received on my former communications by the Editor and H. S. Austin. In the first place, I had no intention to create the idea that the farmer should receive the same rate of pay per hour as the professional, but I stated those cases to show the wide difference there was between the pay received in other callings and the ten cents per hour which the farmer has to be contented with in order to show a profit; and I still protest against the idea that the farmer should only allow himself the same pay as he gives his hired man; or, by the same reasoning, the lawyer or editor has no right to more pay for his work than he has to pay his clerks to do it for him. My idea is that a farmer's pay should equal what he would have to pay a foreman to take the whole management of the farm, besides doing his share of the labor, and I think we would have to pay at least 20 cents per hour, and what was left after paying running expenses should be counted as profits from the farm.

It is no wonder that the hired man leaves the farm to go where he can get more pay and shorter hours than are his lot on the farm.

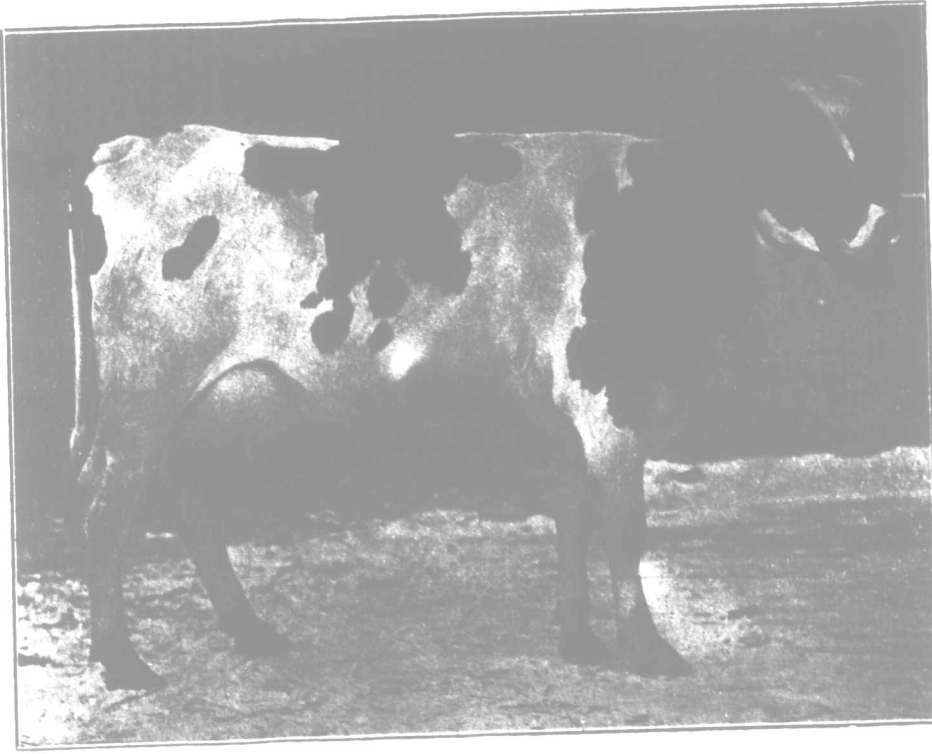
Let us examine H. S. Austin's feed bill. He values the silage at \$2 per ton. Webster Bros., writing in the Weekly Sun, on the value of silage in comparison with clover and timothy hay, place a value of \$4 per ton on the silage. Which is right? If Webster Bros.' figures will stand, then \$80 will have to be wiped out on the profits of those cows.

Take the whole feed bill, \$186, and take off the value of H. S. Austin's latest estimate of the manure, \$185; the total cost of feed over the value of manure is \$1.00. When I asked what those three veal calves were fed on, I was told that they took their feed direct from the cows, but, on referring to the essay, I find this statement: "Skim milk fed to calves and pigs, \$70." Now,

we will take the cost of feeding silage and caring for cows during the six months of summer—2 cents per day. I would like to see the reader of this paper who would be willing to climb into his silo twice per day for six months, let alone feed those cows and give them other necessary attention, for the sum of \$3.60.

A few words on the stand I took on the value of manure. I do not deny that fifty loads is not worth \$100, but can't make out how H. S. Austin got that much from five cows, and out of the material he fed to them; and, to prove my stand, I will give figures to prove as to the amount of manure made. My average stock consists of 10 horses, 25 cattle (mostly cows and feeding steers), 40 sheep, 20 hogs. I feed on an average 50 or 60 tons of clover and timothy hay, and two or three acres of dry fodder corn, and I use about 60 loads of straw, counting it as it comes from the field, for feed and bedding; in fact I keep the gutters full all the time, which takes up every drop of liquid excreta. The manure is kept in a shed, and tramped by the cattle when let out to water, as I keep a water tank in the same shed. Besides, I feed about 1,000 bushels of grain. Yet, with all this stock, feed and bedding, I never yet succeeded in producing 100 loads.

As to those hogs, with which I claimed to have made a profit of 100 per cent., it is easily explained: Cheap feed and the ten-cent hog did it. At the time I fed those hogs, oats were selling here at 30 cents, and barley at 40 cents, per bushel. Besides, if there is not 100 per cent. profit at those prices, what profit do we have when hogs are selling at 5 cents to the farmer,



Dot of Elmwood 10046.

Holstein heifer. Bred and owned by R. J. Kelly, Tillsonburg, Ont. First in class, under 36 months, in the Dairy Test, at the Ontario Winter Fair, Guelph, 1910. Yield of milk in three days, 186.1 pounds, testing 3.45 per cent.

is necessary in the cleaning of the cups, tubes, etc., and also when the cups are put on the teats for milking, that no bits of litter, such as even a small grain hull, drop within, as it will be sucked along the tubing to where the pipe is small, and stop the flow, thus causing delay. Until a longer time had elapsed, and his comparative trials were completed, Mr. Fitch did not feel in a position to express himself fully in regard to the merits of machine milking, beyond observing that, if he could secure efficient milkers who took to the work, and could do it as well as he could himself, he would probably not have had to resort to machines. About five quarts of gasoline per day were required for the engine, which, with oil, made the running cost about 18 cents per day. Good dairy cows are also difficult to secure nowadays, even though very high prices are paid. Dairymen who are under necessity of supplying certain quantities of milk the year round are obliged to buy in "fresh" cows, and farmers are loath to sell their best. The high prices prevailing for veal cause a great many promising calves to be fed for Buffalo and other markets. When \$15 to \$18 can be secured for a good six-week-old calf, the owner naturally thinks that an easy and profitable way of marketing his milk and young stock. To overcome the difficulty of purchasing good cows, Mr. Fitch proposes hereafter to raise more on the farm.

The system of feeding the dairy herd pursued by Mr. Fitch is simple. About 40 pounds corn silage per day is given in two feeds, morning and evening, with the addition of millstuffs, cottonseed meal, malt sprouts, as procurable most advan-



as they often are? There is no get-rich-quick scheme about it.

As to my name, H. S. Austin is welcome to it; it is a name that I am not ashamed of either as a man or a farmer.

Bruce Co., Ont.

SAMUEL HILDRED.

### Performers Breed Performers.

Editor "The Farmer's Advocate":

This has been proven true time and time again, but in no case is a more valuable lesson to be learned than in the study of the breeding of Calamity Starlight Butter Girl, that made the sensational record of 176.9 pounds of milk, testing 5.5 per cent. fat, in the three-day public test at the Winter Fair. Her nearest female ancestors for several generations have qualified for the Advanced Register on performance, as also the sires in her pedigree. Seven of the males in her pedigree have gained a place in the Advanced Registry on the performance of their daughters. Further than this, perhaps, is the unequalled fact that her female ancestors for four generations have been winners at public tests. Her dam, Starlight Calamity Countess; her sire's dam, Lady Wayne Norine, and, further back, Calamity Jane 2nd; and last, but not least, Calamity Jane—these have all won a place in public test, as heifers or cows, during the test of the past 16 years. The Jap would probably say it was the spirit of her ancestors that spurred her on to do such great work. Certainly, a cow that has four generations of public-test winners behind her, should feel very much at home in public.

Another lesson to be learned is that an animal must be given a chance and have proper care, if she is to reach the full measure of her ability.

"Full many a flower is born to blush unseen,  
And waste its sweetness on the desert air."

And many a cow has not reached the limit of her capacity, because there has been too much straw stack, too much barnyard, too much neglect. This animal was sold at my dispersion sale. Mr. Haley did not purchase her then, but as he had another from the same sire make a very fine record, he purchased her on that account. And she certainly did repay him for the good care he has given her since he purchased her. Breeding and proper care to develop the young things must go hand in hand to bring results.

GEO. RICE.

## POULTRY

### Fresh Eggs in Winter.

Now that winter is here, the hens require special care in order to persuade or induce them to lay eggs. In the first place, every old hen should be marketed, then the young ones will fare better. A beautiful, red-combed flock of active Plymouth Rock pullets is something every farmer's wife possessing them is proud of. Eggs are generally scarce during November and December, but, under proper management, the pullets should lay in January. Almost every person relishes fresh eggs in winter, when they are scarce and dear, better than they do in summer, when they are plentiful and cheap. "How to make the hens lay in winter," is the problem that many farmers' wives are trying to solve.

Two farmers' wives were attending the market one day. One of them had a large basket of fresh eggs; the other had only a few. The latter asked her neighbor, "How do you manage to make your hens lay so well during the winter season?" "Why," answered the other, "I feed them six times a day, and always scatter their grain among litter to make the hens take exercise." That is the secret. Isn't it almost a wonder the woman gave it away? Yes, we must keep the hens busy scratching if we want to be kept busy carrying in eggs. Certainly, good attendance is absolutely necessary. One woman told me that she almost lives with her hens. She is always running out to the henhouse with something nice that she knows the hens will relish. She keeps them well supplied with fresh water, and gives them lots of oyster shells. They pay her by giving her basketfuls of fresh eggs. We must take an interest in our hens if we want them to pay. They should be well supplied with good egg-making food. The henhouse should be ventilated, yet free from drafts. Wheat and buckwheat should be fed at least three times a week; oats, boiled barley and potatoes, should be fed in moderation. Change their bill of fare sometimes, for, like ourselves, they require a variety of food. Cabbage and turnips, raw, are much relished. Milk is excellent, and also meat scraps. Hay seeds should be strewn on the henhouse floor. The house should be kept clean and dry. Biddy will manufacture eggs if we give her proper food and keep her busy. And it is surely worth while, when eggs are 25 to 35 cents a dozen.

A. R.

P. 1. 1.

## GARDEN & ORCHARD.

### Quebec Vegetable-growers Hold Profitable Convention.

Over a hundred representative Vegetable-growers, principally from districts on the Island of Montreal, attended the second annual meeting of the Quebec Vegetable-growers' Association, held at St. Laurent, Dec. 14th. The session occupied the afternoon and evening, and, judging from the interest taken, the time was all too short to properly discuss the various addresses.

The old officers, with the exception of some changes in the executive committee, were re-elected: President, Paul Wattiez, Outremont; Vice-Presidents, J. McEvoy, Rosemount, and J. B. Beyries, Cote St. Paul; Secretary-Treasurer, Anatole Decarie, Notre Dame de Graces.

The following resolutions were adopted unanimously:

**Resolution Regarding Organization.**—Whereas, this Association has been incorporated under the "Co-operative Agricultural Association Act," by the Department of Agriculture, Quebec, and a sum of \$400 per annum granted by the said Provincial Government; therefore, resolved that this Association convey to the Honorable Minister of Agriculture of the Province of Quebec the thanks of the vegetable-growers of the Province for the valuable assistance thus rendered.

**Resolution Regarding Experimental Work.**—Whereas, problems of special interest to the Vegetable-growers should be worked out on some of the vegetable-growing lands situated in the principal vegetable-growing districts of the Province; therefore, resolved that, in the opinion of the members of this Association, such experimental work should be undertaken by this Association, for which one acre or more of land should be rented in one or two places for the purpose of conducting said experiments, the work to be carried on under the supervision of the Executive of the Association.

**Resolution Regarding Standard Weights for Vegetables.**—Whereas, owing to the standard weight per bag for certain vegetables not being the same in different Provinces of the Dominion, and the standard weight per bushel of certain vegetables being greater than their actual weight per measured bushel; therefore, resolved, that this Association recommend the Dominion Government to pass such law as necessary to legalize the following weights throughout Canada:

	Lbs. per Bag.	Lbs. per Bushel.
Potatoes	80	60
Onions	75	56
Beets	65	50
Carrots	65	50
Parsnips	60	45
Artichokes	70	56
Green peas, unshelled.	...	30
Snap beans	...	30

Further, resolved that this Association appoint delegates to join with a similar delegation from the Ontario Vegetable-growers' Association, to wait upon the Government at Ottawa to urge the passage of such legislation.

### Fruit-growers' Views on Reciprocity.

There is no doubt that the great body of Canadian farmers, especially those producing export commodities, such as wheat, cheese and cattle, are convinced that their best interests, as well as the best interests of the Dominion generally, lie in a reduction of our present tariff, secured in part, if possible, by reciprocal trade arrangements that will open the American market to our producers. The only general classes of agricultural producers holding materially modified views on this question are the growers of small fruits, vegetables, and other minor lines, produced in insufficient quantities to supply the domestic market. It is only such products that can be materially increased in price by protective tariffs. But even fruit growers are coming to realize that access to the American market would partially, and in some cases more than fully compensate them for the opening of our own markets to foreign competition, while, of course, consumers on both sides the line have considerable to gain thereby. If the reciprocity extended to free trade or reduced tariffs in implements, tools and appliances, the gain to our producers would almost certainly overbalance the loss. At all events, it is but right that we should present the fruit growers' view of the case. At the mass meeting in Ottawa, preceding the interview of the farmers' delegation with the Government, a telegram was received from the Niagara District Fruit growers' Association, representing that, whereas the United States Government has made overtures to the Canadian Government, with a view to reciprocity, and whereas the United States tariff on fruit is much higher than the Canadian tariff, resulting

in some cases, to the detriment of Eastern growers; therefore, it was urged that the matter of reciprocal-trade treaty with the United States should be given the most serious consideration, and whatever action was taken should be done only after consultation with the officers representing that Association, and that all possible preference should be given the Mother Country.

It is gratifying to note that, in regard to the actual position declared for, this resolution is substantially in accord with the platform adopted by the farmers' delegation.

### APPLE-GROWERS' VIEWS.

Supporting the unanimous opinion of the tariff delegation in favor of reciprocity with the United States in all agricultural produce, Jas. E. Johnson, President of the Ontario Fruit-growers' Association, offered a few explanations as to how reciprocity would affect the interests of our Canadian fruit-growers, and particularly our growers of apples. "The district I represent," said Mr. Johnson, "is yearly becoming more largely engaged in orcharding. In this, as in many other sections of Canada, the apple business is being rapidly improved by co-operation of the growers in the care of their orchards and the marketing of their fruit, and the recognized superior quality of our fruit guarantees that, with expert methods, we can more than hold our own in any open market. In the County of Norfolk we have a co-operative association engaged in the handling of apples. This association was organized five years ago, and in 1910, even with the short crop, it sold nine times the quantity of fruit handled in the first year it was organized. The prospects for further development of the apple business in Ontario, under the co-operative system, are very bright, indeed.

"But, while the business of apple-growing is profitable to-day, its extension would be promoted by the opening of wider markets. The Republic to the south, with a population of ninety millions or so, and a rapidly-growing demand for all kinds of food products, would be an excellent additional market for our fruit. Even in the face of the duty prevailing, the shipments from our Association this past year to the United States were 6,000 barrels, while 25,000 barrels went to the Northwest, and 5,000 barrels to England and Scotland. Had there been free trade in apples, we would have been able to sell our whole crop 50 cents a barrel better than we did. There are varieties of apples, such as Greenings, Belleflower and Tolman Sweets, which are not wanted at all in the Northwest, but are readily taken at a good price in the United States. Apart from this, there are localities in Canada which could import American fruit to advantage, and many sections in the United States which could use our fruit to even greater advantage. In years of scarcity, the Canadian West would like to draw upon the Pacific Coast fruit more largely than it does, while, in seasons of more heavy production, we would be greatly benefited by an additional market. This illustrates the advantage of reciprocity.

"At present the Canadian apple-grower is discriminated against. The United States tariff on apples is 75 cents a barrel, while American apple-growers shipping into Canada have to pay only 40 cents a barrel duty. This is unfair, and I respectfully ask, on behalf of Canadian fruit-growers, that you, as representatives of the Canadian people, will endeavor, in any reciprocal trade negotiations, to have the American fruit tariff lowered to at least the same figure as the Canadian tariff. Further than this, we would welcome and request a complete withdrawal of all duties on apples entering either country. Reciprocity in apples would benefit consumer and producer alike."

Speaking for Nova Scotia, S. C. Parker, Secretary of the Nova Scotia Fruit growers' Association, said, briefly:

"Our industry is rapidly growing; with increasing production, we see the importance of as wide a distribution as possible. We are convinced that a fair measure of reciprocal trade with our neighbor at the South would be of immense advantage to all our horticultural interests. Of even more importance is our trade with Great Britain. That country is our best customer, and any preference looking toward increase of trade with the Mother Country, will certainly improve our industrial condition."

### Mulcted by Freight Rates.

Following a short address by Jas. E. Johnson, in the mass meeting at Ottawa which preceded the interview with the Government on the tariff question, a Mr. Paynter, of Saskatchewan, urged that Ontario apple-growers ought to get after the question of freight rates to the West. This past season his brother had brought two carloads of apples from Owen Sound; on one of them the freight was \$315, including a charge of \$18 or \$20 extra for ice, at a season when fruit should be warmed, rather than cooled.



DECEMBER 29, 1910

### Effect of Scab Fungus on the Set of Fruit.

At the recent Ontario Fruit-growers' Convention, Mr. Case, the New York State speaker, brought to the attention of the delegates an important point about apple scab affecting the set of fruit that has been investigated at Cornell University. Mr. Case was quoting from Prof. H. H. Whetzel, Plant Pathologist, of Cornell, though we are advised by Mr. Caesar, of the Ontario Agricultural College, that he believes the work on the scab was actually done by Prof. Wetzel's assistant, Erreb Wallace, a Nova Scotian by birth. The point discussed by Mr. Case was not entirely new to Canadian fruit-growers, Mr. Caesar having frequently endeavored to make the same thing clear. We quote Mr. Caesar as follows:

"The apple-scab fungus passes the winter not on the twigs, but in the diseased leaves on the ground. About the time the leaf-buds are bursting, this fungus has got well started to grow on these leaves, and has formed little projecting dark areas (perithecia), inside of which are a number of little sacks (asci), each enclosing several spores. When these have got about mature, if a rain comes, the effect of the moisture is to cause the little sacks to shoot the spores out like a wad from a popgun. The wind carries these to the lower leaves. Now, many of these are being sent out and establishing themselves on the leaves about the time the blossoms are ready to burst. Consequently, if a fungicide is not put on to prevent germination, once the blossom buds are separated from the enveloping scales and are ready to open, the scab spores may alight on the stems of these, and, by germinating, and the fungus eating the strength out of them, cause the fruit to drop. If it is put on, the spores cannot germinate, and, therefore, the fruit will not drop to the same extent. This, all boiled down, comes to this: The spores of the apple scab begin to fly around shortly before the blossoms open (I have frequently seen the disease on the leaves by this date). Therefore, in seasons favorable to the scab, we must make our first application just before the blossoms open. We must not, however, forget that a fresh crop of different spores, known as the summer spores, quickly forms on the leaves on the trees, and is spreading rapidly by the time for the codling spray, so that this is a very important time to spray. If these two sprayings are given the worst time for the spread of the disease is tided over, and, unless the weather is quite moist, no further spray is necessary, as a rule. This is not because there are no more spores, but because they do not get favorable opportunity to germinate."

In reply to a question which we addressed to him, as to the control of the scab on the trees where the blossoms are late in opening, if one is to spray when the blossoms are just beginning to open on the earlier varieties, Mr. Caesar explains that he finds, in actual experience, a spray applied when the blossoms are just beginning to open on the earlier varieties destroys so many of the scab spores, and prevents to such an extent infection from any summer spores that may be forming on the leaves at this time, that we can rely on it, along with the spray immediately after the blossoms fall, to give us absolutely clean fruit in almost all the districts of the Province, though a few places like the district just along the St. Lawrence River, where there is so much moisture, may require an extra spray about two weeks later than the one for the codling moth.

### An Apple-buyers' Experience.

"There has been less trouble with the inspection of fruit this year than ever before," said A. McNeill, Chief of the Fruit Division at Ottawa, to a representative of "The Farmer's Advocate," lately. Up to two weeks ago, there had been only twenty prosecutions for infringement of the Fruit Marks section of the Inspection and Sale Act, as against a considerably larger number at this time last year. The dealers seem to have fallen into line with the Act as far as the present system of buying and the frailty of human nature will permit them. While the old system of buying prevails so generally in Canada, Mr. McNeill expects we will never have our fruit packed according to the letter of the law. The co-operative associations do very much better, and the organization of one of these in a section means always a raise in the standard of the fruit packed. As illustrating this point, Mr. McNeill relates a striking example, which, however, is not very exceptional. In 1909, one of the largest Ontario buyers bought 60,000 or 70,000 barrels of apples and shipped them to the Northwest. He was harassed from start to finish by the buyers of his fruit, the fruit inspectors, and so on. He paid hundred of dollars in fines, lost money heavily, and had a bad year generally. This experience decided him to buy no more fruit indiscriminately, so the past summer he purchased from one of our leading co-operative associations about 30,000 barrels, and, notwithstanding that he

had the misfortune to be sick in bed the greater part of the season, the business proceeded smoothly, he had no worry about the quality of the fruit, and no trouble with the inspectors. His customers sent flattering reports about the quality of the apples received, and he cleared up a good many thousand dollars on his season's operations. If all the fruit grown in Eastern Canada were co-operatively packed, the apple business would not be so precarious as it is, the demand would be increased, average prices raised, and the industry benefited in a good many ways. Of course, there is a danger of even co-operative associations lapsing into a state of carelessness, but the inspectors of the Fruit Division were instructed this past season to be very particular in examining the pack of these associations, in order, if possible, to guard against any depreciation of the good name of co-operatively-packed fruit.

### Some Potatoes.

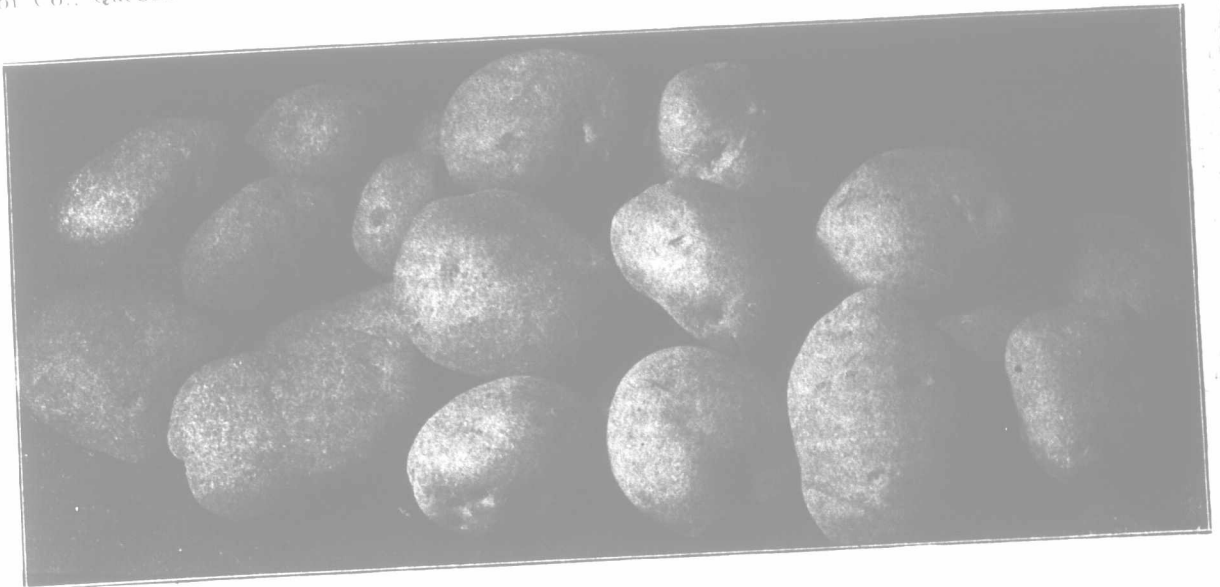
While the potato crop for the present year throughout the Dominion is not up to a high average, it is in most sections fairly satisfactory as to bulk and quality, though considerable rot is reported. In some districts tubers of abnormal size have been produced. C. M. Simmons, of Middlesex Co., Ontario, reports a single potato weighing 2 pounds 10½ ounces, with quite a few in the same field weighing 2 pounds. A member of "The Farmer's Advocate" staff, from one whole potato planted, had a yield of 5 pounds 1 ounce, the largest tuber measuring 6½ inches in length, 10 inches in circumference, and weighing 1 pound 6 ounces. But C. Fred Fawcett, of Westmoreland County, N. B., caps the climax by reporting a return from one whole potato planted of 31 tubers in a hill, 27 of which were marketable, and the total weight of which was 8 pounds 14 ounces.

F. J. Mathers, of Middlesex County, brought into our office, a few weeks since, seven fine, clean potatoes, fairly uniform in size, said by him to have been all grown from half a potato, to have been in new ground the last week in June. Notwithstanding that they did not appear above ground till the middle of July, the seven tubers weighed 3 pounds 13 ounces. Mr. Mathers also left with us a carrot of the short white type, weighing 5 pounds 5 ounces. It was produced with a crop sown on loamy soil, in good heart, to half an acre of which he had applied nine loads of manure and a dressing of salt, amounting, if we mistake not, to 250 lbs. per acre. Mr. Mathers attributed the success of his crop to the salt, although, as no check plot was grown without salt, the effect of the chemical cannot be said to have been conclusively demonstrated.

Alfred Hutchinson, Wellington County, Ont., writes: "I dug one root of 'Satisfaction' potatoes, grown in the field in regular row, that had 24 tubers; total weight, 7 pounds. Eighteen of these were marketable, and weighed 6½ pounds. I have kept this root by itself for seed, and intend to propagate it."

For sending in only one new subscription to "The Farmer's Advocate and Home Magazine," you may have a two-bladed Joseph Rodgers jack-knife or a two-bladed Joseph Rodgers pen-knife. Look up the particulars and read about our other premiums in the announcement on page 2071 of this issue.

"We all like 'The Farmer's Advocate,' and it heads the list of our farm papers. Wish you continued success."—(C. H. L. Hawley, Missisquoi Co., Quebec.



One Hill of Potatoes.

Crop 1910, from one whole potato planted. Pioneer Farm, Westmoreland Co., N. B. Owner, C. Fred Fawcett. Number of tubers in hill, 31; marketable, 27. Total weight, 8 pounds 14 ounces. Green Mountain variety.

## THE FARM BULLETIN.

### A Successful Club.

The Brant Township Farmers' Club has held another successful meeting, and, to help others who are considering the forming of a club, we will give a short sketch of our life and what we have done. We were organized in the beginning of 1908, with a membership of 29. This membership has grown every year, until last year we had 43 on our list. We charge the small fee of 10 cents, and this is used to defray any expenses that may be incurred during the year.

From time to time we have had a Government speaker address us on some important topic. We have done a little in co-operative buying of seed corn and meal, but think it unwise to go into this extensively. The idea of co-operative selling of some of our products is being experimented with, and is proving a success, and should arouse farmers to the possibilities of more co-operation along the line of selling. The marketing of our produce is to-day of more importance than production, which latter has been well discussed in the past. If producers were to investigate the marketing end of their business, they would soon realize that they are not getting enough for their product, when they consider the final selling price as its value. They would also find out what becomes of the great difference between the price they receive and the price that the product is finally sold at to the consumer. Of course, many will say, "Nothing can be done," that nothing has ever been accomplished by these people. There are plenty of things that can be done, only we haven't tried to find them, and as soon as we get alive to the situation, these things will be thought out and tried; but so long as we are satisfied, and say, "Nothing can be done," just so long will things stay as they are.

At our recent meeting we were addressed by Joseph Lawson, of Guelph, on the subject, "Progress of Farming in Canada During the Last Decade," in which he showed us why we were most fortunate to be living in as prosperous and free a country as Canada. He did not, however, touch on the future of Canada, and how farmers could help to make the future more attractive for themselves than it had been in the past. There is a great cry at present for legislation in favor of agriculture, but let us realize that, before we can get any legislation in justice to farming, we must first send men to Ottawa who are in some way connected with agriculture, and who realize that the strength of a nation lies in the farming community. A. E. W.

### Poland-China Breeders Wish to Show.

In Essex County, Ontario, and contiguous territory, there are a number of breeders with whom the Poland-China hog has proved so satisfactory that they are petitioning the management of the Toronto Exhibition to make provision for that breed in the classification and prize lists of that show. These men feel that, since the corn belt of Ontario is spreading considerably, since this breed is eminently adapted to make use of corn, and since it has established itself to a goodly extent without encouragement, and in keen competition with the bacon type, the development of this breed should be encouraged by the leading shows. There is reason in their argument, and a chance for the breed to stand on its merits seems a fair demand. Perhaps a wider introduction of the fat-hog type might bring the type would be evidenced by a difference in price when purchasing hogs. Angels have come in less attractive disguises than this.



# The Sayings and Doings of "Donald Ban." Nearly Three and Three-quarters Billion Dollars' Worth of Crops.

By Peter McArthur.

"Folks seem to be bothered a lot with nerves these days," said Donald Ban, as he laid aside his paper and opened the front door of the box-stove so that he could look at the glowing coals. "Almost every day there are letters in the paper from people that complain about the whistles and bells and street-cars and such things. Well, I can understand that, for I don't think much of those noises myself. City noises are mostly all clangs and crashes and shrieks, and they are enough to set anyone's teeth on edge; but there's a letter in to-night's paper from a school-teacher who is grumbling at the noises of the farm where she boards. She complains about the barking of the dog and the bawling of the cattle and the yelling of the children. She must have had her nerves spoiled in the city before she came to the country. I feel like writing her a letter telling her to stick to the country for a while and she will find healing in it. After awhile she will get to like 'the watchdog's honest bark,' as Byron calls it, and when 'the lowing kine come winding o'er the lea,' she'll start writing poetry about them. Then, the yelling of the children—why, that's the finest music in the world. By the bye, mother, when are Dan's boys coming to visit us again?"

"Whenever you feel that you can stand their noise, and will not be grumbling every night that they are tearing the house down," his wife responded, grimly.

"I didn't grumble," he protested. "I had a touch of rheumatism at the time and was bilious, and the jumping around may have bothered me some, but I like to have them here."

"I remember you used to scold us for tearing around when we were little," said his son.

"Maybe I did, maybe I did; but I would have felt worse if you hadn't been here to tear around and make a noise. But, as I was going to say before you both began to argue with me, the noises in the country are music, compared with the ones you hear in the city. I like them all, from hearing the grass grow in the spring, to the howling of the storms in the winter time."

"How about hearing the old sow when the north wind is blowing and she has to pass that draughty corner between the shed and the barn?"

"Well, yes, that's pretty bad. I remember that Scott, in one of his novels, speaks about the singing at a conventicle sounding like a 'hog in a high wind.' Yes, that's pretty bad, but if you didn't have a noise like that once in a while we wouldn't know how good the other sounds are. I sometimes think our Canadian poets haven't done justice to the music in our fields and woods. Of course, I have never been in Italy, but I have an idea that our crickets and grasshoppers make just as good music as

"The shrill cicada, people of the pine,  
Making their lives a ceaseless song."

"The trouble is that we have no Byron to visit us and tell us how good they are. But, now that I think of it, that is hardly fair. Our own Archibald Lampman tells how

"The grasshoppers spin into mine ear  
A small innumerable sound."

"Where on earth have you been learning all the poetry?" asked his wife.

"In the corners of the newspapers," said Donald Ban, triumphantly. "All the good poetry that ever was written, as well as a lot of trash, comes out in the corners of the newspapers at one time or another, and I read it all. What I like sticks in my memory and comes back to me from time to time. The poets are great on describing sounds, and I think if I put my mind to it, I could get a piece about every sound we hear in the country." He stopped and thought for a while, and then began impatiently:

"There, now, when I sit down and try to do it, I can't. I thought I could begin with the spring and end with the winter, but the first thing I wanted to speak of in the spring I can't find any poetry about. I was thinking of the sound of the grass growing in the spring. Of course, I know it isn't the grass growing at all; but when you walk over the pasture when the 'rost is all out and the days are warm, you hear a little sound that you may think is the growing of the grass. I know it is only the angleworms pulling themselves back into the wet earth, but it is springlike, and good to hear. That is the time when the birds come back, and I want to be out of doors all the time to see them and hear them. I am proud that our own Canadian Carman has given us a song about that."

He went to the drawer in the table, and, after some searching, brought out a clipping.

"Some of the things I like are too long to keep in my mind, but listen to this:

"Set me in the urge and tide drift  
Of the streaming hosts a-wing.  
Breast of scarlet, throat of yellow,

Raucous challenge, woings mellow—  
Every migrant is my fellow,  
Making Northward with the Spring,  
Loose me in the urge and tide-drift  
Of the streaming hosts a-wing.

"Shrilling pipe or fluting whistle,  
In the valleys come again,  
Fife of frog and call of tree-toad,  
Making music in the rain.  
Shrilling pipe or fluting whistle  
In the valleys come again."

"Hasn't that got the very soul of a spring day in it? Still, there are things that are left out. To me there is no finer sound in the spring than the robin, when he sits on the top limb of a tree at daybreak, and seems to be saying:

"Plow it, sow it,  
Reap it, mow it."

"Did you make that up yourself?" asked his wife.

"I did not. That was told me by Jim Hyse, a man that I never thought had any poetry in his soul."

"Then, there's the whispering of the south wind in the apple trees, and its long sigh as it comes sweeping over the wheat fields. I like the far-away clacking of the mowers and the reapers, too, and even the droning of the threshing machine sounds good when there has been a good crop. It makes you feel that McIntyre, of Ingersoll, though people laugh at him, was getting down pretty close to poetry when he wrote:

"Fifty bushels to the acre  
Makes us grateful to our Maker."

"Later in the year, especially in a fine October, the air seems to be full of sounds that come dropping down through the still air all around you. Even the falling leaves seem to have a little tinkling music of their own."

"And I must not forget about the storms. The thunder-storms are grand. I like them best when they come in the night, for then I remember Byron's piece that used to be in our old school-books:

"And this in the night! Most glorious night!  
Thou wert not sent for slumber. Let me be  
A sharer in thy fierce and far delight,  
A portion of the Tempest and of Thee."

"That poem always stirs me up as a trumpet call might rouse a soldier. When I look up at the clouds that pile against the sky like mountains, and seem to be answering one another, I can imagine myself in the Alps, instead of on the flat fields of Ontario:

"Far along

From peak to peak, the rattling crags among,  
Leaps the live thunder. Not from one lone cloud,  
But every mountain now hath found a tongue,  
And Jura answers through her misty shroud  
Back to the joyous Alps that call to her aloud."

"I always get up at night when there is a thunder-storm. I make believe to your mother that I want to see if the windows are all shut and if the eavetroughs are right, but what I really want to see is the storm, and to recite that poem to myself. In the winter time, too, we have fine storms that are full of the howling and bellowing of the winds as they chase the snowdrifts across the fields. I like to be out in them when I am wrapped up warm, and it is then I know what Coleridge meant when he said that he was

"Inspired beyond the guess of folly  
By each rude shape and wild unconquerable  
sound."

"Donald Ban, Donald Ban, when you talk like that you make me wish that you had been a minister."

"Ministers don't talk like that," he protested. "I didn't say a word about your morals. I was only telling you about the things I find in life that are good to see and hear and feel. There's no place for finding them like the country. You can't find them in the city, and I am sorry for the folks that never find them at all."

"I think you might have been a College Professor," said his son.

"That's nonsense. I shouldn't be anything else than I am—just an old farmer who finds the world good to live in, and is glad to learn anything that will make it seem better. I see no reason why a College Professor should know or enjoy things that I do not. The good books of the world are just as open to me as they are to him, and, as I said before, all these things can be got out of the corners of the newspapers by people who have an eye to see them."

Whereupon the old man stirred up the fire to a blaze, and, sitting back in the rocking chair, sat for a long time dreaming and looking at the flames.

The final estimates of the Crop-reporting Board of the Bureau of Statistics of the United States Department of Agriculture, based on the reports of the correspondents and agents of the Bureau, indicate the harvested acreage, production, and value of important farm crops of the United States, in 1910 and 1909, to have been as follows:

Crops	Production		Acreage		Farm Value	
	Bushels*	Cents	Acres	Per bush.	December 1st, 1910	December 1st, 1909
Corn, 1910	3,125,713,000	48.8	114,002,000			
Corn, 1909	2,772,376,000	59.6	108,771,000			
Wheat, 1910	995,443,000	89.4	49,205,000			
Wheat, 1909	737,189,000	99.0	46,723,000			
Oats, 1910	1,126,765,000	34.1	35,288,000			
Oats, 1909	1,007,353,000	40.5	33,204,000			
Barley, 1910	162,227,000	57.8	7,257,000			
Barley, 1909	170,284,000	55.2	7,011,000			
Potatoes, 1910	398,811,000	55.5	3,591,000			
Potatoes, 1909	376,537,000	54.9	3,525,000			
Hay, 1910	460,978,000	\$12.26*	45,691,000			
Hay, 1909	464,938,000	10.62*	46,744,000			

The total value of crops above specified, together with such less-important ones as rye, buckwheat, flaxseed, rice and tobacco, on December 1st, 1910, was \$3,735,464,000, against \$3,971,426,000 on December 1st, 1909. The average of prices was about 8.5 per cent. lower on December 1st, 1910, than on December 1st, 1909.

## How New U. S. Regulation Affects Canadian Live-stock Exporters.

Canadian stockmen will be interested to learn just what conditions will be imposed upon men shipping stock to the United States by the new import regulations recently announced from Washington, and explained on page 1946 of our Christmas Number. It will be noticed that registration in the following Canadian records will be accepted in lieu of registration in the foreign books of record for the granting of import certificates. The Canadian records recognized are:

In Horses—Belgian Draft, Clydesdale, Hackney, Shire, Suffolk, Welsh Pony and Cob.

In Cattle—Aberdeen Angus, Ayrshire, Jersey-Canadian, Galloway, Guernsey, Hereford, Jersey, Red Polled, Shorthorn.

In Sheep—Cheviot, Cotswold, Dorset Horn, Hampshire, Leicester, Lincoln, Oxford Down, Shropshire, Southdown, Suffolk.

In Swine—Berkshire, Duroc-Jersey, Hampshire, Poland-China, Tamworth, Yorkshire.

Whether it means that all animals of the specified breeds imported to the United States from Canada will require to be recorded in the Canadian books, or whether, in case of animals first imported to Canada, but not yet recorded in Canadian books, registration in the foreign books would suffice to secure the necessary import certificates, is not made perfectly clear, though we understand that the Accountant of the Canadian National Records has taken the matter up with Washington, and a definite announcement is expected. This much is clear, at all events: after January 1st, 1911, anyone importing animals to the United States will no longer apply to the respective American Record Associations for import certificates, but the Canadian (or foreign) certificate of registration, with vendor's certificate and an application for import certificate, will have to be forwarded to the Bureau of Animal Industry at Washington, when, upon examination, the Bureau will issue the import certificate and send it to their office at point of entry to the United States. Under the new regulations, there is apparently no provision, as formerly, for taking an animal through a bond. As stated above, the



Canadian National Records Office is obtaining full particulars from Washington, and expects to make arrangements for the issuing of a Canadian export certificate, the object being to make matters as simple as possible for breeders doing business across the line.

The new rule hits some of our sheep breeders rather hard, as a number of them still record in the American flockbooks. Henceforth they will have to record also in the Canadian books, unless, possibly, in the case of imported sheep, depending upon the interpretation of the point raised above.

### The Short Courses in Live-stock Judging.

This is the season of short courses, and they are surely coming to occupy the center of the stage. In 1908 there were sixteen held in the Province of Ontario; in 1909 there were 25, and during this winter there will be at least 45 held before the season is over. The prospects are that a short course will be held in every county in the Province during the winter of 1911-12, according to C. F. Bailey, of the Institutes Branch of Ontario. But the true test of the usefulness and popularity of these epitomized schools lies in the individual course. On December 20th, 21st and 22nd, Messrs. McKenney and Edwards, District Agricultural Representatives, managed the first live-stock-judging short course at Essex. For three days, Prof. G. E. Day, of the O. A. C., and J. A. McLean, of "The Farmer's Advocate," conducted classes in beef cattle, dairy cattle, Clydesdales, Poland-Chinas, and Percherons, the former taking the first three of these divisions, and the latter the last two. Four hundred and fifty men at each of the afternoon sessions, and close to as many in the morning, staying to the very last, and then loath to leave, was sufficient testimony to the appreciation of the nature of the work.

The story of the Essex short course is, in brief, the story of that of every other. The breeders within any reasonable distance of the place gladly bring in the best of their stock, charging simply the additional expense, and not always that. The people themselves come from fifteen to eighteen miles to attend. At Chesterville and Maxville, about 500 men were in attendance at the afternoon sessions; at Warkworth there were over 200. Deep interest, animated discussions, and expressions of satisfaction, mark the feeling of the localities towards these classes.

The initial success of the short courses lies practically entirely with the District Representatives. They have worked for several years amongst their people, giving such valuable and reliable assistance in the various phases of agriculture that they have won the confidence of their counties. Thus, when a short course is presented, the comfortably-heated tents are full to overflowing—and young men are much in evidence. All are eager to learn; they ask questions about type, about quality, about unsoundnesses; they want to know the standards and the shortcomings and the excellences of the particular animals before them, which is by all odds the best way to learn.

### Coming Events.

- Eastern Ontario Live-stock and Poultry Show, Ottawa, Jan. 16-20.
- Eastern Ontario Dairymen's Association, Annual Convention, Perth, Jan. 4-6.
- Western Ontario Dairymen's Annual convention, Stratford, Jan. 11-12.
- Annual Meeting Nova Scotia Farmers' Association, Jan. 24-26, 1911.
- Ontario Corn-growers' Exhibition, Chatham, Jan. 31st to Feb. 3rd.

Beginning with September, 1911, tuition fees will be charged students who enter from outside the State by the New York College of Agriculture, Cornell University. The enrollment this year in December was 1,254, compared with 932 in 1909. The number this year includes 784 regular and 470 short-course students. It is expected that the increase in students from New York State next year will counterbalance any diminution of outsiders possibly deterred by the fees. The trustees have decided to offer a limited number of free-tuition scholarships to superior outside students as an encouragement to that class.

F. C. Nunnick, who has been acting as district representative of the Ontario Department of Agriculture in Glengary County, and was selected to enter the office of the Department at Toronto, has received a more attractive appointment as an agricultural expert, in the employ of the Conservation Commission, with headquarters at Ottawa.

Through an unaccountable error, Mrs. Alex. McGowan, author of the first prize pioneer story, published in the Christmas Number, was represented as belonging to Simcoe County. Mrs. McGowan lives in Grey.

### Western Dairymen's Convention at Stratford.

Programmes are issued for the forty-fourth annual convention of the Dairymen's Association of Western Ontario, to be held this year in Stratford, Ont., Wednesday and Thursday, January 11th and 12th. The meetings will be in the City Hall, and the Winter Dairy Exhibition in Heinrich's Hall. Prospects are for a good exhibition of butter and cheese. There is an exceedingly good entry of October butter, and the new class for Stilton cheese is well filled. The speakers will include, besides some of our foremost Canadian dairymen and dairy officials, N. P. Hull, of Michigan, who addressed the Convention so acceptably in St. Thomas last year. Stratford is the center of one of our very best dairy counties in Ontario—none better—and the convention should be a rousing one. Single-fare rates will obtain on the railroads.

### Express Rates Excessive.

As the result of an inquiry extending over a period of several years, the Canadian Board of Railway Commissioners has issued a judgment covering 114 pages of typewriting. This judgment is perhaps the most sweeping and radical yet handed down by the Railway Commission. It declares that the express companies are grossly overcapitalized, that their forms of contract with shippers are unfair, and that the express companies are practically owned by the railroad companies, whose earnings on express traffic are excessive. The Board finds that express tolls are unreasonably high, and orders the filing of new tariffs within three months.



Baroness Insch (imp.) [20270].

Champion Clydesdale mare, Ontario Winter Fair, Guelph, 1910. Sire Casabianca. Property of Smith & Richardson, Columbus, Ont.

### OVERCAPITALIZED.

Dealing with the question of capitalization, the judgment remarks that the Canadian Express Company, when bought for six hundred and sixty thousand dollars by the Grand Trunk Railway, in 1892, was valued at sixty thousand dollars, the six hundred thousand dollars being presumably for the franchise. The sixty thousand dollars of assets has grown to \$212,719, and there are three millions of stock outstanding in the hands of trustees for the Grand Trunk Railway Company. All there is in tangible assets to represent the three millions of stock is the \$212,719.

In the case of the Dominion Express Company, which is controlled by the C. P. R., the capitalization is two million dollars. All the actual cash ever paid into the company, so far as the board could ascertain, on account of capital stock, has been \$24,500. The assets now stand at something less than six hundred thousand dollars, yet two millions of fully paid-up stock is outstanding.

### PAYMENTS TO RAILWAYS.

As evidence of heavy payments to companies, in the case of the Dominion Express Company, out of a total gross revenue of \$21,473,696 earned in the seven years prior to 1908, the total paid to the C. P. R. was \$13,409,240, or 63.9 per cent.

During the same period, the Canadian Express Company, out of a total revenue of \$13,362,266, paid the Grand Trunk \$8,467,307, or 55.5 per cent.

The Board states that there is no reason for the existence of separate companies to handle express business, as the traffic could be as well handled by the railroad companies, and, in fact, is.

The evidence of the president of the Dominion Express Company is quoted to show that in one year the C. P. R. was overpaid three hundred and forty thousand dollars for station accommodation. The explanation was that the company was providing for a bad year.

On this point the judgment states: "It looks as if the express company was finding itself with accumulation of money on hand that, if retained, might show very heavy dividends on even its highly-inflated capital."

### RATES ON FRUIT.

Dealing with the proposal of the fruit-growers that an order should be issued in respect to the rough handling of fruit, the judgment says that nothing would be accomplished by this. An order of the Board would not prevent an employee from damaging or pilfering. Besides, any action for damages lies with the shipper.

The Board orders that the Dominion Express Company reduce its carload rate on fruit from Ontario shipping points to Winnipeg to \$2 per hundred pounds. It is pointed out that if the company can give, as it does, a blanket rate from all main-line shipping points of British Columbia, it should do the same for Ontario growers.

### GRADUATED CHARGES.

Dealing with the question of graduated charges, the judgment directs that the clause in the classification providing that when a rate between any two points is not given, the next highest rate should be charged, be eliminated. The companies must extend the freight tariff of graduated charges so as to provide reasonably proportioned "graduates" for all hundred-pound merchandise rates published in the companies' local tariff.

### RETURNED EMP-TIES.

As to returned empties, the Board orders that empties outstanding may be returned free for a period of four months after the new classification goes into effect, providing the shipper gives notification within thirty days.

### RATES ON CREAM.

A change is made in the rates on cream. The tariff to be filed by the express companies is to provide that the existing rates on sour cream will be the rate upon all cream when shipped to creameries for the manufacture of butter, the tariff to remain as it is upon cream for domestic purposes. Upon the cream for creameries, the company may perform no delivery service.

Study the problems of the soil, young man, and find in their solution, not only profit, but the fascinating interest of science and that solid satisfaction which comes to him who grapples successfully with the conditions in which he has been placed.

Humus-making crops are such grasses as timothy, clover, blue grass, brome grass and alfalfa. It has been found by experiment at University Farm, Minnesota Experiment Station, that grass land plowed and put into crops is under better conditions of moisture and freer from weeds than land that has grown grain continuously.

An organization of farmers' boys, called "The Tree-planters of America," has been started in the United States to promote systematic tree-planting in "profitless pastures, nooks, ravines, on useless or worn-out spots, or partly-denuded forest areas on the farm, and in every place where the soil is not yielding a reasonable contribution to the general welfare."

If the farmer decides that he will himself put an end to his own isolation, and work in co-operation with his fellows for all the great objects of united interests common to the farmers of each farming neighborhood, then the beginning of great things will have arrived. The co-operative spirit is the master spirit of this age, and the farmer has been the last to feel its influence and respond.—[Gifford Pinchot.]



## The Canadian Bank of Commerce

Affords to farmers and others every facility for the transaction of their banking business.

Accounts may be opened by mail and moneys deposited or withdrawn in this way with equal facility.

SALES NOTES will be cashed or taken for collection.

Branches throughout Canada, including Toronto, Hamilton, Montreal, Charlottetown, New Glasgow and Truro.

## MARKETS.

### Toronto.

#### REVIEW OF MARKETS, 1910.

Canadian farmers, and especially those of Ontario, have little reason to be dissatisfied with the results which have accrued to them from the last year's operations on the farm. With few exceptions, prices for all agricultural products have held as high as those for the year 1909, and in some cases a higher range of figures has been maintained throughout the entire year. During the latter part of 1910, there was a tendency for prices to show an easier undertone, due partially to the effect which extremely high prices have had on sentiment, and to the slowing up of business in the United States. This has been felt more in the cereals than in anything else, but it has also influenced very materially the price of hogs, which show a decline from the early part of the year till the end of the year of 30 per cent.

The main reason for the decline in the prices of all grains has been largely due to the world's crop, which, beginning with wheat, and continued down through the entire list, shows an increase of production in excess of that of almost any previous year. Russia has been a very important factor in the prices for wheat this year, and, although actual figures cannot be obtained of this crop, as is usually the case, the exports from the Russian ports have confirmed the conviction that the crop of this eastern section of Europe was wonderfully prolific in 1910. In Ontario, there was a fair average crop of wheat, oats and barley, and a good crop of hay. The disastrous results of the drouth in the Canadian Northwest has had its effect on Manitoba wheat prices, and has held them above what they would otherwise have been if the crop in Manitoba and the other Western Provinces had been as bountiful as those of previous years.

Considering the good crop of hay which has been reaped in Ontario, and the excellent results from the root crops, the prices for feed have held up remarkably well, showing that there can be very little falling off in the live stock in the Province.

In dairy products, the results were better than those of the previous year, due to good pasture throughout the entire summer. There has been a little shading in the prices of cheese and butter, but the home consumption has been sufficiently good to make a steady and profitable market for these products. Poultry of all descriptions continued to be somewhat scarce, and this, together with the high prices which have ruled for meats, has kept the quotations for all classes of poultry at a steady, high range, all the year.

The results in fruit of all descriptions, with the exception of apples, was an average crop in Ontario. There has been a steady falling off in the crop of apples, which has resulted in bringing about a price for one of the varieties higher than perhaps in any other year in Canada's

history. While this is beneficial, of course, to the farmers who are lucky enough to have a good crop, it is a question whether the financial results as a whole will be as good as those of previous years.

Alsike was a short crop, and the output has been practically all marketed at remunerative prices. The crop of red clover is estimated to be from two to three times as great as last year in the Province of Ontario, but there is a very large amount of weedy seed that cannot be used in Canada on account of the stringency of the Dominion Seed Laws, and which will have to be exported. It is, therefore, a question whether good clover seed, because of this, will not maintain its price in the Dominion.

As before stated, the price of all varieties of live stock, with the one exception, that of hogs, has held higher on the average than for 1909. The difference, as near as can be estimated, would be as follows:

Export cattle, \$1 per hundredweight higher.  
Beef cattle, \$1 per hundredweight higher.  
Feeders, \$1 to \$1.50 per hundredweight higher.  
Milkers, \$10 to \$15 per head higher.  
Veal calves, \$1 per hundredweight higher.  
Sheep, 60c. per hundredweight higher.  
Lambs, 75c. to \$1 per hundredweight higher.

Hogs at present are about 87c. per hundredweight lower than last December. During the early part of 1910, hogs made the record price, both here and in the United States. In fact, except during the time of the American war, no such figure as \$10 per hundredweight live weight has ever been known on this continent. The very large crop of corn in the United States has had an immediate effect on hog prices, and, in sympathy with the United States markets, the quotations here have fallen to about a parity.

A fair estimate of the increase in the cattle business in Ontario might be obtained from the volume of business done at the Toronto live-stock markets, the increase at both markets amounting to 34,539 cattle, 11,457 hogs, 40,726 sheep, and 498 calves. There was a decrease of 300 horses, all of which was shown by the falling off in shipments of these animals to the Union Stock-yards. Below will be found the statement for the Union Stock-yards, and the City Cattle-yard for the first eleven months of the years 1909 and 1910:

#### CITY YARDS.

	Cattle	Hogs	Sheep	Calves
1909.....	157,141	132,708	84,655	28,802
1910.....	143,799	116,599	124,283	28,218

Decrease.....	13,342	16,109		584
Increase.....			69,628	

#### UNION.

	Cattle	Hogs	Sheep	Calves	Horses
1910.....	7,933	154,607	48,444	80,154	6,367
1909.....	6,515	106,726	47,346	52,538	5,235

Inc.....	1,418	47,881	1,098	27,566	1,082
Dec.....					300

#### TOTAL FOR BOTH YARDS.

	Cattle	Hogs	Sheep	Calves	Horses
City.....	1910	143,799	116,599	124,283	28,218
Union.....	1910	154,607	80,154	48,444	6,367

1910 Total	298,406	196,753	172,727	34,585	
1909 Total	263,867	185,296	132,001	34,087	

The market decline is represented in the quotations in the hide market for year, the difference amounting in some instances to 25 per cent. For instance, starting in January, No. 1 inspected hides were quoted as high as 13½ cents, while in December the same grade fell in three gradations from 10½c. to 10c., and ultimately reached 9 cents, which was the quotation at the end of December. The explanation for the decline in hide quotations is the much lessened demand in the United States, where, owing to the falling off in the export business, the demand has naturally reverted back to the raw product. The British boot trade has undergone a wonderful revival of late years, and curtailed to a very considerable degree the exports from the United States.

At the end of the year, the outlook for

1911 seems to be fairly promising. Fall seeding was done under favorable conditions, and save for an abnormal winter, there is every reason for believing that next year's crop will make a good start. The high prices which have been paid recently for feeders and stockers would seem to indicate that cattle prices will continue to increase at least until grass cattle commence to show themselves next year. After the modification in grain and other farm products which has taken place during the last few months, there is every reason for believing that nothing but steady prices are warranted until the balance of the crop for 1910 has been disposed of.

#### REVIEW OF LAST WEEK'S MARKETS

The total receipts of live stock at the City and Union Stock-yards last week were as follows:

	City.	Union.	Total.
Cars.....	143	106	249
Cattle.....	1,899	889	2,788
Hogs.....	3,249	2,028	5,277
Sheep.....	2,249	1,163	3,412
Calves.....	162	11	173
Horses.....	1	41	42

The total receipts for the two yards for the same week of 1909 were:

	City.	Union.	Total.
Cars.....	168	142	310
Cattle.....	2,066	2,074	4,140
Hogs.....	3,512	1,021	4,533
Sheep.....	2,123	1,195	3,318
Calves.....	125	49	174
Horses.....	15	137	152

The above figures show a decrease in the combined receipts of the two yards, when compared with the corresponding week of 1909, of 61 cars, 1,352 cattle, 1 calf, and 110 horses; but an increase of 744 hogs and 94 sheep.

Considering the season, the receipts of live stock at the two markets were fairly large. Trade in all classes of live stock was generally good, all offerings being readily taken at fair prices.

Exporters.—None were offered, and one firm who had an order to fill for the London, England, market, had to go to Buffalo to get a supply.

Butchers.—A few Christmas-quality cattle sold at \$6.10 to \$6.25; picked lots, \$5.85 to \$6; loads of good, \$5.50 to \$5.75; medium, \$5.25 to \$5.50; common, \$4.75 to \$5.15; cows, \$3 to \$5.35; bulls, \$4 to \$5; canners, \$2.50 to \$2.75.

Feeders and Stockers.—Feeders sold at \$4.75 to \$5.30; stockers, \$4 to \$4.65.

Milkers and Springers.—Moderate receipts of milkers and springers sold at \$40 to \$85 each.  
Veal Calves.—The ordinary run of veal calves sold at \$4 to \$8.50 per cwt. Christmas-quality calves brought \$9 per cwt.

Sheep and Lambs.—Moderate receipts of sheep and lambs sold as follows: Ewes, \$4.50 to \$4.75; rams, \$3 to \$3.50; lambs, \$5.75 to \$6 per cwt.

Hogs.—The packers started out for the week at \$6.75 for selects, fed and watered, and \$6.40 to drovers, for hogs f. o. b. cars at country points; but finished up the week by paying \$7 for selects, fed and watered, and \$6.65 for hogs f. o. b. cars at country points.

Horses.—Trade in horses was better last week than for some little time; that is, there were more enquiries, as there are many dealers who are on the lookout for horses. The prospects are that after the New Year opens up there will be a good, brisk demand. Your correspondent was informed by a Northwestern farmer, that his country (Saskatchewan) would require a large number, as well as the other Western Provinces. Trade at the Union Horse Exchange has improved, Mr. Smith reports, more horses, over 148 being received at the stables. Mr. Smith sold and shipped three carloads to the West, also another lot of ten extra-quality drafters to a well-known Toronto firm, at prices ranging from \$250 to \$285 each. Trade in general is picking up, as there were several dealers from the Maritime Provinces. Medium-class horses are the class that is being sought after. Prices ranged as follows: Good to choice drafters, \$225 to \$275; general-purpose, \$150 to \$200; express and wagon horses, \$160 to \$200; drivers, \$100 to \$225; serviceably sound, \$35 to \$100.

#### BREADSTUFFS.

Wheat.—No. 2 white, red or mixed, 85c. to 86c., outside. Manitoba wheat—No. 1 northern, 98c.; No. 2 northern, 95½c.; No. 3 northern, 93c., track, lake ports. Rye—No. 2, 59c. to 60c., outside. Peas—No. 2, 78c. to 80c., outside. Buckwheat—46c. to 47c., outside. Barley—Malting, 56c. to 59c.; for feed purposes, 50c., outside. Oats—Canadian Western, No. 2, 38½c.; No. 3, 36½c., lake ports; Ontario, No. 2, 32c.; No. 3, 31c., outside. Corn—American new, No. 3 yellow, 53½c., Toronto freights. Flour—Ontario 90-per cent. winter-wheat flour, \$3.55, at seaboard. Manitoba flour—Toronto prices are: First patents, \$5.40; second patents, \$4.90; strong bakers', \$4.70.

#### HAY AND MILLFEED.

Hay.—Baled, in car lots, track, Toronto, No. 1, \$12.50; No. 2, \$8.50 to \$10.50.

Straw.—Baled, car lots, track, Toronto, \$8.50 to \$10.50.  
Bran.—Manitoba bran, \$19 per ton; shorts, \$21; Ontario bran, \$20 in bags, shorts, \$22, track, Toronto.

#### COUNTRY PRODUCE.

Butter.—Practically no change. Creamery pound rolls, 26c. to 28c., and Locust Hill brand, 29c.; creamery solids, 25c.; separator dairy, 24c. to 25c.; store lots, 25c. to 22c.

Eggs.—Strictly new-laid, 50c. to 55c., cold storage, 27c. to 28c. On the farmers' market last Saturday, 61c. per dozen was paid for small lots of strictly new-laid eggs.

Cheese.—Market unchanged. Large, 12c.; twins, 12½c.

Beans.—Market firm, at \$1.85 for hand-picked.

Honey.—Market steady; extracted, 10c. to 11c.; No. 1 comb honey, \$2.25 to \$2.75 per dozen sections.

Poultry.—Dressed, turkeys, 22c.; geese, 15c.; ducks, 17c.; chickens, 14c. to 16c.; hens, 12c. to 13c.

Potatoes.—Car lots, on track, Toronto, 70c. to 75c., and 77c. was paid in one or two instances.

#### HIDES AND WOOL.

E. T. Carter & Co., 85 East Front street, have been paying the following prices: No. 1 inspected steers and cows, 9c.; No. 2 inspected steers and cows, 8c.; No. 3 inspected steers, cows and bulls, 7c.; country hides, cured, 8½c., green, 8c.; calf skins, 11c. to 13c.; sheep skins, 65c. to 80c.; horse hides, No. 1, \$2.75 to \$3; horse hair, per lb., 29c.; tallow, No. 1, per lb., 5½c. to 6½c.

#### TORONTO SEED MARKET.

The William Rennie Seed Company report the seed prices as follows: Alsike No. 1, per bushel, \$7 to \$7.50; alsike No. 2, per bushel, \$6.50 to \$7; alsike No. 3, per bushel, \$5.50 to \$6; red clover No. 1, per bushel, \$7 to \$7.25; red clover No. 2, per bushel, \$6 to \$6.50; red clover No. 3, per bushel, \$5 to \$5.50.

#### FRUITS AND VEGETABLES.

Apples, No. 1 Spies, per box, \$2.50; No. 2, \$2; No. 1 Greenings, per box, \$2; No. 2, \$1.75; No. 1 Baldwins, \$2; No. 2, \$1.75; cabbage, per 100, \$3.50; carrots, per bag, 50c.; beets, per bag, 60c.; onions, per bag, \$1.25; parsnips, per bag, 60c.; pears, 50c. to 80c. per basket.

#### Chicago.

Cattle.—Beeves, \$4.50 to \$7.25; Texas steers, \$4.10 to \$5.25; Western steers, \$4 to \$5.90; stockers and feeders, \$3.40 to \$5.75; cows and heifers, \$2.40 to \$6.15; calves, \$7.15 to \$9.35.

Hogs.—Light, \$7.50 to \$7.90; mixed, \$7.55 to \$7.95; heavy, \$7.50 to \$7.90; roughs, \$7.50 to \$7.65; good to choice heavy, \$7.65 to \$7.90; pigs, \$7.10 to \$7.85; bulk of sales at \$7.70 to \$7.85.

Sheep and Lambs.—Native, \$2.40 to \$4.15; Western, \$2.75 to \$4.10; yearlings, \$4.50 to \$5.60; lambs, native, \$4.25 to \$6.25; Western, \$4.75 to \$6.25.

#### Buffalo.

Veals.—\$7 to \$10.50, a few at \$10.75.  
Hogs.—Heavy mixed and Yorkers, \$8.15 to \$8.20; pigs, \$8.20 to \$8.25; roughs, \$7.15 to \$7.25; stags, \$5.75 to \$6.25; dairies, \$8 to \$8.20.

Sheep and Lambs.—Heavy lambs, \$5 to \$5.65; handy lambs, \$5 to \$6.60; yearlings, \$4.75 to \$5.



**Montreal.**

**Live Stock.**—Shipments of cattle from Portland and St. John during the week ending December 17th, amounted to about 1,400 head. Receipts of fancy Christmas cattle at the local markets were large. Fancy stock sold up to 7c. and 7½c. per lb.; very choice sold at 6½c. to 6½c.; choice, at 6c. to 6½c.; fine at 5½c. to 6c.; good at 5c. to 5½c.; medium at 4c. to 4½c.; and common as low as 3c. per lb., cows being included in this. Calves continued firm in tone, and choice sold at 7c. to 7½c. per lb., and lower grades at 5c. to 6c. per lb. The market for sheep and lambs was firm, at 4½c. to 5c. per lb. for sheep, and 7c. to 7½c. per lb. for lambs. Along with the rest of the market, the price of hogs was firm, at around \$7.15 per 100 lbs. On the whole, the quality of the live stock offered was equal to that of previous years.

**Horses.**—The market for horses showed very little change. It is hoped, however, that in a few weeks buying will begin again, and dealers will then dispose of some of the horses they have in their stables. For the most part, however, there was just as much trouble obtaining horses as disposing of them. Prices were as follows: Heavy draft, weighing from 1,500 to 1,700 lbs., \$300 to \$350 each; light draft, 1,400 to 1,500 lbs., \$225 to \$300; light horses, 1,000 to 1,100 lbs., \$100 to \$200; old, broken-down animals, \$50 to \$100, and choice carriage and saddle animals, \$350 to \$500 each.

**Dressed Hogs and Provisions.**—The market for dressed hogs was about steady; abattoir, fresh-killed stock sold at 9½c. to 9½c. per lb., and country-dressed at 8½c. to 9c. per lb. Demand for cured meats was good. Barrelled pork ranged from \$20.50 to \$28 per barrel, and beef sold at \$17. Lard was steady at 10½c. to 12c. per lb. for compound, and 13½c. to 14½c. per lb. for pure. Hams were steady, at 12½c. per lb. for those weighing 28 lbs. to 40 lbs.; 14½c. for 20 to 28 lbs.; smaller hams, 15½c. per lb.; boneless hams, large, 16c., and small, 17c. per lb. Bacon was steady, at 16c. per lb. for Wiltshire sides; 18c. for cottage rolls, 15½c. for Windsor skinned backs; 14c. for spiced rolls, and 14½c. for brown brand of English bacon.

**Poultry.**—Owing to the approach of Christmas the market for poultry was very strong, and prices experienced a general advance. Turkeys have been selling as high as 23c. per lb., and the range was down to about 20c. Chickens advanced, and sold at 15c. to 17c. per lb.; fowl selling at 11c. to 14c. per lb.; geese being 14c. to 15½c., and ducks 16c. to 18c. per lb. There was very little demand for geese, and it was thought that these would be higher this week when the New Year's demand comes on.

**Potatoes.**—The market has again declined, and ranges from 80c. per 90 lbs. to 82½c., carloads, on track, for Green Mountains. These were sold over again at about 85c. between dealers. Supplies were fairly plentiful at the moment.

**Apples.**—The market for apples was higher last week than it has been this season. Supplies were light, and there was a good demand, doubtless owing to the approach of Christmas. No. 1 apples sold at \$4.75 to \$5.50 per barrel, while No. 2 sold at \$3.75 to \$5, and No. 3 at \$2.75 to \$3.60 per barrel. Spies brought high prices all round.

**Eggs.**—The market for eggs was naturally active during the past few days, but prices showed very little alteration, and continued very firm in the face of the rather small supplies. This applies especially to new-laid eggs, these selling at 55c. per dozen, in case lots. Selects brought about 32c. per dozen, and No. 1 candled about 26c. to 27c. per dozen.

**Butter.**—The market for butter was reported easy by some of the papers recently, but dealers do not generally confirm this. Prices were 24½c. to 25½c. per lb., wholesale, single packages bringing 26c. per lb. It was stated that shipments have been light to outside points, and receipts moderate.

**Cheese.**—There was little interest in the market, but prices were about 11½c. to 12c., or a fraction more, to cover all qualities, colored being at a premium of ½c.

**Grain.**—There were very few changes during the week in the market for oats, prices were 39½c. to 39½c. per bushel for

No. 2 Canadian Western, carloads, ex store; 38½c. for No. 1 extra feed, and 38½c. to 38½c. for No. 3 Canadian Western; 37½c. for No. 2 local white; 36½c. for No. 3, and 35½c. for No. 4. No. 4 Manitoba barley was 48c. to 48½c., and No. 3 yellow corn was 57½c. to 58c.

**Flour.**—The market for Manitoba flour was steady, at \$5.60 per barrel, in bags, for first patents; \$5.10 for seconds, \$4.90 for strong bakers'; \$4.75 to \$5 for Ontario patents, and \$4.35 to \$4.50 for straight rollers.

**Millfeed.**—The market was firm, at \$18.50 to \$19 per ton for Ontario bran; \$22 to \$22.50 for middlings; \$31 to \$32 for pure grain mouille; \$25 to \$28 for mixed mouille; \$21 to \$22 for Manitoba shorts, and \$18 to \$20 for bran. Cotton-seed meal was steady, at \$37 to \$38.

**Seeds.**—After the turn of the year, it is likely that receipts will increase. Meantime dealers are getting along a certain amount of red clover at \$7 to \$9 per bushel, country points, and alsike at \$6 to \$8.

**Hay.**—The market was unchanged, at \$11 to \$11.50 per ton, track, for No. 1; \$10 to \$10.50 for No. 2 extra; \$7 to \$7.50 for clover; \$7.50 to \$8 for clover mixed, and \$9 to \$9.50 for No. 2 hay.

**Hides.**—The market was steady, at 8c., 9c. and 10c. per lb. for beef hides; 10c. and 12c. for calf skins; 65c. to 70c. each for sheep skins; \$1.75 and \$2.50 for horse hides; 1½c. to 4c. for rough tallow, and 6½c. to 7c. for rendered.

**British Cattle Markets.**

John Rogers & Company, Liverpool, cabled quotations as follows: States steers, from 12c. to 13c., and Canadian, from 11½c. to 12½c. per pound.

**World Crop Reports.**

The Crop-reporting Board of the Bureau of Statistics of the United States Department of Agriculture estimates, from the reports of the correspondents and agents of the Bureau, that the total production of cotton in the United States for the season of 1910-11, will amount to 5,464,597,000 pounds (not including lint), equivalent to 11,426,000 bales of 500 pounds, gross weight.

**Winter Wheat.**—Area sown this fall 2.5 per cent. more than the revised estimated area sown in the fall of 1909, equivalent to an increase of 828,000 acres, the indicated total area being 34,485,000 acres. Condition on December 1 was 82.5, against 95.8 and 85.3 on December 1, 1909 and 1908, respectively, and a ten-year average of 91.3.

**Australia.**—The total wheat crop of Australia for 1909-10, is estimated at 93,263,000 bushels, as compared to 64,663,000 for 1908-09.

Early official estimates of the 1910 wheat crop of Europe will now need revision. The final official estimate of the important crop of Russia exceeds expectations, and puts the 1910 yield of the Empire at 773 million bushels, or only 10 million bushels less than the high-record output of 1909. In view of these figures, it is obvious that the total European wheat crop almost, if not quite, equals the unprecedented abundance of the previous season.

In bulk, the Great Britain 1910 wheat crop amounted to 58 million bushels. Although about 5 million bushels less than that of last year, the quantity, owing mainly to augmentation of acreage in late years, exceeds the ten-year average. Barley, with a 60-million bushel crop, was also slightly over average, but 2½ million bushels under the yield of last year. Oats was exceptional in that it is the only cereal which gave a heavier out-turn than in the preceding year. The hay crop, as might be expected from the character of the season, was unusually abundant, the total output being 9½ million tons, against 8½ million a year ago; the average is about 9 million tons.

**France.**—Yields of root crops, as a whole, have proved even more deficient than those of cereals, and dependence upon foreign countries for food supplies upon foreign countries for food supplies has thereby been further increased. Potatoes, which constitute an important element of human and animal food, and are also much used in the manufacture of starch, are officially returned as a half crop. Owing to disease, due chiefly to the cool, wet summer, the yield per acre,

which in each of the two previous years had amounted to over 160 bushels, was this season reduced to 82. The result is that the total domestic supply for the current year is only 309 million bushels, against over 600 million in each of the two preceding years. Obviously heavy imports will be required to make up the deficit. Sugar beets, though not so disastrously affected by the inclement weather, are short of last year's output by over a million tons. The yield per acre—about 11½ tons is the average—is this season returned as 9.9 tons, making the total out-turn less than for several years. In favorable seasons, fall seedings are practically finished by mid-November, but at that date this year from 30 to 40 per cent. of the wheat lands in some Departments was reported unsown. Seed which went into the ground during the exceptionally fine October, germinated satisfactorily; in some localities, however, damage from field mice and slugs necessitated considerable re-sowing, and the subsequent bad weather is not regarded as conducive to a hardy vegetation. The present agricultural prospect is spoken of generally as being somewhat similar to the deplorable conditions at the same period last year, when heavy rains, beginning in October, and continuing at intervals throughout the cereal season, resulted in one of the most disastrous years agriculturally in the history of the country.

**Italy.**—Weather conditions during the past month have, on the whole, been seasonable, and the development of the growing cereals is generally spoken of as making good progress. The area sown to winter wheat is believed to have been considerably increased. On account of the deficiency of the 1910 wheat harvest, the Ministry of Agriculture estimates the import requirements at about 75 million bushels, as compared with an actual import of 35 million bushels last year. Fruit crops, and the yield of cocoons, were seriously curtailed by cold, rainy weather in early spring, and the vintage, because of insalubrious atmospheric conditions and diseases of the vine, has given even poorer results than had been anticipated. The yield of grapes is officially returned at 5,951,000 tons (2,000 pounds each), against 10,853,000 tons last year. The rice crop is officially estimated at 965,615,000 pounds, as compared with 1,093,000,000 pounds a year ago; corn, 97,750,000, against 94,821,000 bushels the previous season.

**Belgium.**—The potato crop, according to recent official statistics, is short in all parts of the Kingdom. In some localities it is a complete failure. Lands which normally return from 225 to 450 bushels per acre, have this season given yields ranging from 150 to 200 bushels. In the humid regions results have fallen as low as 25 bushels. In average years the domestic crop amounts to from 80 to 90 million bushels. Heavy importations will probably be required to make up the deficiency.

**Germany.**—Seeding of winter cereals was practically finished by mid-November. The autumn has generally been a dry one, and late field work was in most parts rendered difficult by excessive hardness of soil. Early-sown rye germinated well, but growth has been retarded in many districts by lack of sufficient moisture; of late-sown fields of both wheat and rye, some are described as looking poor. As in several other countries of Europe, much damage is reported from ravages of field mice and slugs, and many fields have had to be replowed. On the whole, the condition of vegetation is not all that could be desired, especially in the event of a cold, open winter. Late potatoes are said to have turned out somewhat better than expected, the prolonged spell of dry weather having checked the spread of rot, which had proved so calamitous to the early varieties. In the southern part of the Empire, however, yields are very unsatisfactory, damage from disease and rot having been beyond repair.

**Russia.**—The Central Statistical Committee has recently published its final estimate of the 1910 production of spring wheat, barley, oats, and corn, in 73 Governments of European and Asiatic Russia. The yield of spring wheat, as stated by cable, is in round numbers, 524 million bushels, or 52 million bushels less than last year. The final figures of the same authority on the winter-wheat crop, issued

late in October, were 249 million bushels, an increase over the winter-wheat yield of the previous year of 42 million bushels. It therefore turns out that the total 1910 wheat crop has greatly surpassed all expectations, and falls short of the unprecedented yield of 1909 by only 10 million bushels. It is pertinent to note that the impetus given to wheat culture in the Empire in recent years has no parallel either in the old world or the new. Year after year more and more extensive areas have been sown to this cereal, until the 42 million acres under wheat 15 years ago were represented in 1910 by 71 million acres, an increase of 70 per cent. in a decade and a half. The movement has received exceptional impetus during the last two years, chiefly from the prevailing high prices; and, owing largely to increase in areas sown, the Empire has in both seasons taken rank as the leading wheat-producing nation of the world, the yield of 783 million bushels in 1909, and 773 million bushels in 1910, comparing with crops, respectively, of 737 and 692 million bushels in the United States.

**"If."**

"If you can keep your head when all about you  
Are losing theirs and blaming it on you;  
If you can trust yourself when all men  
Doubt you,  
But make allowance for their doubting,  
Too;  
If you can wait and not be tired by waiting,  
Or, being lied about, don't deal in lies;  
Or, being hated, don't give way to hating,  
And yet don't look too good, nor talk too wise;

"If you can dream, and not make dreams  
Your master;  
If you can think, and not make thoughts  
Your aim;  
If you can meet with triumph and disaster  
And treat these two impostors just the same;  
If you can bear to hear the truth you've  
spoken  
Twisted by knaves to make a trap for  
fools,  
Or watch the things you gave your life  
to broken,  
And stoop and build 'em up with worn-  
out tools;

"If you can make one heap of all your  
winnings  
And risk it on one turn of pitch-and-  
toss,  
And lose, and start again at your be-  
ginnings  
And never breathe a word about your  
loss;  
If you can force your heart and nerve  
and sinew  
To serve your turn long after they are  
gone,  
And so hold on when there is nothing in  
you  
Except the will which says to them,  
'Hold on!'

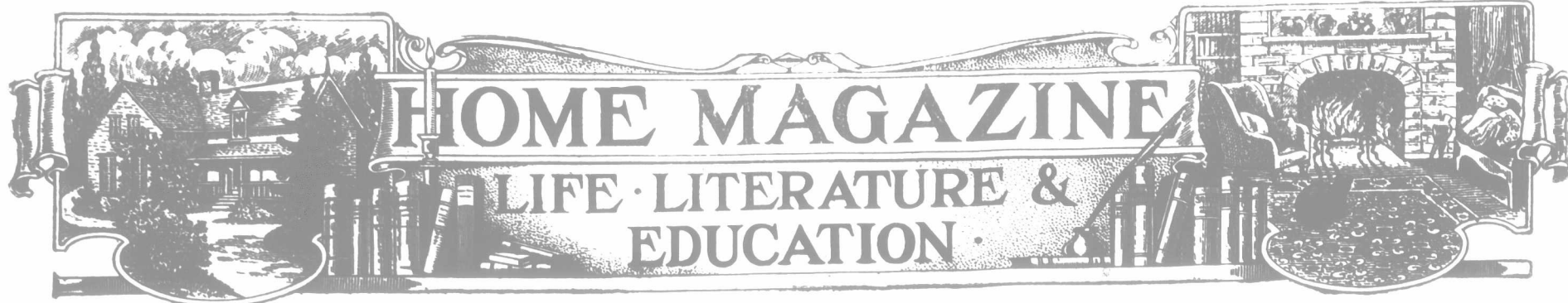
"If you can talk with crowds and keep  
your virtue,  
Or walk with kings—nor lose the com-  
mon touch;  
If neither foes nor loving friends can  
hurt you,  
If all men count with you, but not too  
much;  
If you can fill the unforgiving minute  
With sixty seconds' worth of distance  
run,  
Yours is the earth and everything that's  
in it,  
And—which is more—you'll be a man,  
my son!"

—Rudyard Kipling, in American Magazine.

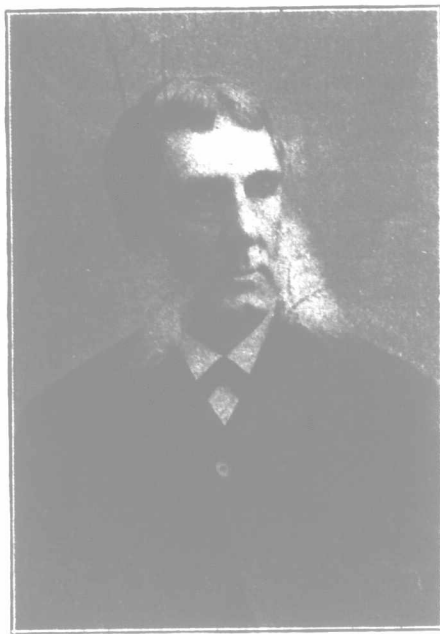
"Now, tell me, Mr. —, what are the  
Knights of the Bath?" He stammered  
for a while, and finally blurted out:  
"Why, Saturday nights, I suppose."

"I understand Brindle and his wife have  
quarrelled. What was the cause?"  
"Why, Brindle lost his wife in the  
crowd, and went about peering under all  
the peach-basket hats that looked like  
hers—and she saw him and got mad."





### Little Trips Among the Eminent.



George William Curtis.  
(1824 - 1892.)

An account of the New England writers would not be complete without mention of George William Curtis, essayist, editor and lecturer, some of whose books have been deservedly given place among America's classics.

He was born at Providence, Rhode Island, in 1824, and grew up, in point of both time and place, in an atmosphere which could scarcely fail to make a literary man of anyone with a bent towards literary art and scholarship. He it was, it will be remembered, who, with Alcott and Hosmer, helped Thoreau to build his famous hut at Walden. He was, moreover, a fervent admirer of Emerson, and was one of the habitués of the famous Literary Clubs and "Evenings" of the famous New England literary circle. He was also one of the party of idealistic men and women who essayed the socialistic experiment at Brook Farm.

In 1846 he went to Europe, where he remained for four years, returning to New York in 1850 to join the staff of the New York Tribune. He was also editor, for a time, of Putnam's Monthly, and leader-writer for Harper's Monthly, in which were published his "Editor's Easy Chair" papers, since collected into book form.

His famous story of New York life, "Trumps," appeared in 1862. Other works are the delightful and well-known "Prue and I," "Notes of a Howadji," and "The Howadji in Syria,"—entertaining accounts of a trip through the East; "Lotus-eating," a series of letters written from fashionable watering-places; and the caustic and entertaining "Potiphar Papers"—a satire on the pretentious life of New York of that day.

Mr. Curtis also lectured from time to time, and Major Pond, the manager and agent for so many of the famous men who were wont to lecture in the old Lyceum days, has told us (in his gossipy book, "The Eccentricities of Genius") of the enthusiasm always aroused by this quiet, handsome, dignified man, whose fine face and bearing gave an additional charm to the entertaining and perspicacious addresses which he invariably gave.

Mr. Curtis died in 1892.

### TITBOTTOM'S SPECTACLES.

[From "Prue and I," by George William Curtis. Old Titbottom, the under bookkeeper, tells of the magical spectacles bequeathed to him by his grandfather, which enabled him to see people not as they seem, but as they are.]

"The revelations of the spectacles determined my feeling for the boys, and for all whom I saw through them. No shyness, nor awkwardness, nor silence, could separate me from those who looked lovely as lilies to my illuminated eyes. But the vision made me afraid. If I felt myself warmly drawn to anyone, I struggled with the fierce desire of seeing him through the spectacles, for I feared to find him something else than I fancied. I longed to enjoy the luxury of ignorant feeling, to love without knowing, to float like a leaf upon the eddies of life, drifted now to a sunny point, now to a solemn shade—now over glittering ripples, now over gleaming calms—and not to determined ports, a trim vessel with an inexorable rudder.

"But sometimes, mastered after long struggles, as if the unavoidable condition of owning the spectacles were using them, I seized them and sauntered into the little town. Putting them to my eyes, I peered into the houses and at the people who passed me. Here sat a family at breakfast, and I stood at the window looking in. 'O motley meal! fantastic vision! The good mother saw her lord sitting opposite, a grave, respectable being, eating muffins. But I saw only a bank-bill, more or less crumpled and tattered, marked with a larger or lesser figure. If a sharp wind blew suddenly, I saw it tremble and flutter; it was thin, flat, impalpable. I removed my glasses and looked with my eyes at the wife. I could have smiled to see the humid tenderness with which she regarded her strange vis-a-vis. Is life only a game of blindman's buff? of droll cross-purposes?"

"In many houses I thought to see angels, nymphs, or, at least, women, and could only find broomsticks, mops, or kettles, hurrying about, rattling and tinkling, in a state of shrill activity. I made calls upon elegant ladies, and after I had enjoyed the gloss of silk and the delicacy of lace, and the glitter of jewels, I slipped on my spectacles, and saw a peacock's feather, founced, and furbelowed, and fluttering; or an iron rod, thin, sharp, and hard; nor could I possibly mistake the movement of the drapery for any flexibility of the thing draped.

"Or, mysteriously chilled, I saw a statue of perfect form, or flowing movement, it might be alabaster, or bronze, or marble—but sadly often it was ice; and I knew that after it had shone a little, and frozen a few eyes with its despairing perfection, it could not be put away in the niches of palaces for ornament and proud family tradition, like the alabaster, or bronze, or marble statues, but would melt and shrink, and fall coldly away in colorless and useless water, be absorbed in the earth and utterly forgotten.

"But the true sadness was rather in seeing those who, not having the spectacles, thought that the iron rod was flexible, and the ice-statue warm. I saw many a gallant heart, which seemed to me brave and loyal as the Crusaders pursuing, through days and nights, and a long life of devo-

tion, the hope of lighting at least a smile in the cold eyes, if not a fire in the icy heart. I watched the earnest, enthusiastic sacrifice. I saw the pure resolve, the generous faith, the fine scorn of doubt, the impatience of suspicion. I watched the grace, the ardor, the glory of devotion. Through those strange spectacles how often I saw the noblest heart renouncing all other hope, all other ambition, all other life, than the possible love of some one of those statues.

"I mingled with men, but with little pleasure. There are but many varieties of a few types. I did not find those I came to clearer-sighted than those I had left behind. I heard men called shrewd and wise, and report said they were highly intelligent and successful. My finest sense detected no aroma of purity and principle; but I saw only a fungus that had fattened and spread in a night. They went to the theatres to see actors upon the stage. I went to see actors in the boxes, so consummately cunning that others did not know they were acting, and they did not suspect it themselves.

"Perhaps you wonder it did not make me misanthropical. My dear friends, do not forget that I had seen myself. That made me compassionate, not cynical.

"Of course, I could not value highly the ordinary standards of success and excellence. When I went to church and saw a thin, blue, artificial flower, or a great sleepy cushion expounding the beauty of holiness to pews full of eagles, half eagles, and threepences, however adroitly concealed they might be in broadcloth and boots; or saw an onion in an Easter bonnet weeping over the sins of Magdalen, I did not feel as they felt who saw in all this not only propriety, but piety.

"Or, when at public meetings, an eel stood up on end, and wriggled and squirmed lithely in every direction, and declared that, for his part, he went in for rainbows and hot water—how could I help seeing that he was still black, and loved a slimy pool?"

"I could not grow misanthropical when I saw in the eyes of so many who were called old the gushing fountains of eternal youth and the light of an immortal dawn, or when I saw those who were esteemed unsuccessful and aimless ruling a fair realm of peace and plenty, either in their own hearts or in another's—a realm and princely possession for which they had well renounced a hopeless search and a belated triumph.

"I knew one man who had been for years a byword for having sought the philosopher's stone. But I looked at him through the spectacles and saw a satisfaction in concentrated energies, and a tenacity arising from devotion to a noble dream, which was not apparent in the youths who pitied him in the aimless effeminacy of clubs, nor in the clever gentlemen who cracked their thin jokes upon him over a gossiping dinner.

"And there was your neighbor over the way, who passes for a woman who has failed in her career, because she is an old maid. People wag solemn heads of pity, and say that she made so great a mistake in not marrying the brilliant and famous man who was for long years her suitor. It is clear that no orange flower will ever bloom for her. The young people make their tender pro-

mances about her as they watch her, and think of her solitary hours of bitter regret and wasting longing, never to be satisfied.

"When I first came to town, I shared this sympathy, and pleased my imagination with fancying her hard struggle with the conviction that she had lost all that made life beautiful. I supposed that if I had looked at her through my spectacles I should see that it was only her radiant temper which so illuminated her dress that we did not see it to be heavy sables.

"But when, one day, I did raise my glasses, and glanced at her, I did not see the old maid whom we all pitied for a secret sorrow, but a woman whose nature was a tropic, in which the sun shone, and birds sang, and flowers bloomed forever. There were no regrets, no doubts and half-wishes, but a calm sweetness, a transparent peace. I saw her blush when that old lover passed by, or paused to speak to her, but it was only the sign of delicate feminine consciousness. She knew his love, and honored it, although she could not return it. I looked closely at her, and I saw that although all the world had exclaimed at her indifference to such homage, and had declared it was astonishing she should lose so fine a match, she would only say, simply and quietly:

"If Shakespeare loved me, and I did not love him, how could I marry him?"

"Could I be misanthropical when I saw such fidelity, and dignity, and simplicity?"

"I do not believe you will be surprised that I have been content to remain a deputy bookkeeper. My spectacles regulated my ambition, and I early learned that there were better gods than Pentus. The glasses have lost much of their fascination now, and I do not often use them. But sometimes the desire is irresistible. Whenever I am greatly interested, I am compelled to take them out and see what it is that I admire.

"And yet—and yet," said Titbottom, after a pause, "I am not sure that I thank my grandfather."

### A Christmas Carol.

It chanced upon the merry, merry Christmas Eve

I went sighing past the church, across the moorland dreary.

"Oh! never sin and want and woe this earth will leave,

And the bells but mock the wailing round, they sing so cheery.

How long, O Lord, how long before Thou come again?

Still in cellar, and in garret, and on moorland dreary

The orphans moan, the widows weep, and poor men toil in vain,

Till the earth is sick of hope deferred, though Christmas bells be cheery."

Then arose a joyous clamor from the wild fowl on the mere,

Beneath the stars, across the snow, like clear bells ringing.

'Till a voice within cried: "Listen!—Christmas carols even here!"

Though thou be dumb, yet o'er their work the stars and snows are singing.

"Blind! I live, I love, I reign; and all the nations through

With the thunder of my judgments even now are ringing;

Be thou full thy work but as you will fowl do.

Thou wilt heed no less the wailing, yet hear through it angels' singing."



### Hope's Quiet Hour.

#### Walk on the Sunny Side.

Dear Hope,—I want to ask you why it is that when someone wishes to do us a good turn, when we don't want it or desire it, we always resent it. He comes to us in a spirit of benevolence and good will, and we spurn his kindness. We cannot understand that a man would try to do us good without a selfish motive of his own. We have no faith in man. If we would be perfectly honest with ourselves, the majority of us would have to admit that the above is true, but we nevertheless believe ourselves to be Christians. We think we are getting back at him for his audacity by refusing his kindness, but in reality we are only harming ourselves, and in more ways than one. We are the losers, not he. He gives spiritually because he uses his good-will and love-faculty towards us, while we lose spiritually because we stop our good-will and love faculty towards him. What we use, grows, while what we do not use, slips from us. Consider the parable of the "talents." Now, dear Hope, why do you think we deliberately harm ourselves in this way? A. E. W.

Our correspondent may be right in saying that some people harm themselves by refusing to accept offered kindness in a kindly spirit, but such an experience has very seldom come under my notice. I generally find it the other way, and feel amazed at the gratitude shown for very trifling acts of common friendliness. Of course, it sometimes happens that an offered act of kindness is not prompted by a kindly spirit. Then it ceases to have any sacramental value and gives pain instead of pleasure. If a man has no affection for his wife but attempts to cover up his feelings by giving her costly presents, she will very probably feel like thinging them away. If a rich man gives presents to the poor, without caring in the least for the poor, it is little wonder if the recipient's self-respect is wounded. If the gifts are the natural expression of genuine friendliness they will usually, I think, be accepted in the spirit in which they are offered. But the one who confers a favor, should always remember that he is the privileged party. "It is more blessed to give than to receive."

Gifts from one who loved me,  
'Twas high time they came,  
When he ceased to love me,  
Time they stopped for shame."

When I was looking over Christmas books, I came across one called "Cheerfulness as a Life Power," and to-day you shall have the chance to read some selections from it. It will be a nice change for you, and, if it helps to advertise the book, why, so much the better! Speaking of "the laugh cure," the author says: "The San Francisco Argonaut says that a woman in Milpites, a victim of almost crushing sorrow, despondency, indigestion, insomnia, and kindred ills, determined to throw off the gloom which was making life so heavy a burden to her, and established a rule that she would laugh at least three times a day, whether occasion was presented or not, so she trained herself to laugh heartily at the least provocation, and would retire to her room and make merry by herself. She was soon in excellent health and buoyant spirits; her home became a sunny, cheerful abode. . . . At first her husband and children were amused at her. 'But after awhile,' said this woman, 'the funny part of the idea struck my husband, and he began to laugh every time we spoke of it. . . . My husband spoke of it to our friends, and I rarely met one of them, but he or she would laugh, and ask me how many of my laughs I had had to-day. Naturally, they laughed when they asked, and of course, that set me laughing. When I formed this apparently strange habit I was weighed down with sorrow, and my rule simply lifted me out of it. I had suffered the most acute indigestion for years I have ever known what it is. Headaches were a daily dread, for over six years I have not had a single pain in the head. My name seems different to me, and I feel a thousand times more interest in its work. My husband is a changed man.'"

"Nervous prostration is seldom the re-

sult of present trouble or work, but of work and trouble anticipated. Mental exhaustion comes to those who look ahead, and climb mountains before reaching them. Resolutely build a wall about to-day, and live within the enclosure. The past may have been hard, sad, or wrong,—but it is over. Why not take a turn about? Instead of worrying over unforeseen misfortune, set out with all your soul to rejoice in the unforeseen blessings of all your coming days. I find the gayest castles in the air that were ever piled," says Emerson, "far better for comfort and for use than the dungeons in the air that are daily dug and caverned out by grumbling, discontented people."

"There is no use in talking," said a woman. "Every time I move, I vow I'll never move again. Such neighbors as I get in with! Seems as though they grow worse and worse."

"Indeed?" replied the caller; "perhaps you take the worst neighbor with you when you move."

"There are a vast number of fidget, nervous, and eccentric people who seem only to expect new disappointments, or to recount their old ones."

fornia. The work was done quickly and thoroughly—because it was transformed into play.

"A habit of cheerfulness, enabling one to transmute apparent misfortunes into real blessings, is a fortune to a young man or young woman just crossing the threshold of active life. There is nothing but ill fortune in a habit of grumbling, which requires no talent, no self-denial, no brains, no character. Grumbling only makes an employee more uncomfortable, and may cause his dismissal. No one would or should wish to make him do grudgingly what so many others would be glad to do in a cheerful spirit. If you dislike your position, complain to no one, least of all to your employer. Fill the place as it was never filled before. Crowd it to overflowing. Make yourself more competent for it. Show that you are abundantly worthy of better things. Express yourself in this manner as freely as you please, for it is the only way that will count."

The author of the delightful little book from which I have been quoting is Orison Swett Marden. The book is full of bright anecdotes. In one, he tells of an elderly widow who looked so stern and

every day preach a sermon long as the streets you walk, a sermon with as many heads as the number of people you meet, and differing from other sermons, in the fact that the longer it is the better."

And that reminds me that I must not make this sermon—a borrowed one—too long.

I wish you all a very Happy Year.  
DORA FARNCOMB.

### The Beaver Circle.

#### Bunnie's Christmas.

(By Justus Miller.)

Faster and faster fell the snowflakes in the gray dawn of the December morning. Whirling and twisting they came, mantling the bare earth in a Christmas garment of white. From his cozy box the tame rabbit hopped into his outer pen of wire screen. It was long before breakfast time, but perhaps some instinct of freer things—the call of wild gambols over moonlit gleaming snow—inherited from old-time ancestors, stirred within his furry breast as he stood upright peering through the softly falling crystals, his long ears moving comically, and his silly, blunt nose twitching and snuffing.

Suddenly he shrank back. In the dim light a shadowy form came stealthily toward his pen. Almost indistinguishable was the white rabbit now, amidst the finely sifting snow, but two fierce eyes searched him out easily, holding him trembling and terrified. Just what the nature of the creature was that came prowling and smelling around him thus each morning, he perhaps didn't know, but that the beast had no business there, and that the visits boded him no good, he very well understood, and in abject fear he had received its unwelcome attentions.

Leaping upon the flat screen roof, his persecutor stretched itself at full length and lay silently, keenly watching. Many times before it had done this, and each time its weight resting on the top had chafed the twine binding the bottom screens, until this morning it parted, and an opening appeared just in front of the frightened rabbit. For one moment he hesitated, and then, as his eyes met the green glare of those above, he shot forward, and, with pounding heart, went leaping away through the drifting snow, while behind, a disappointed cat picked himself up and slunk through the back door of the woodshed.

With ears laid low, he ran on and on in a panic, down the lane, across the railroad track, and into the underbrush, until at last he stopped, exhausted by the unaccustomed exertion. His great longing was realized at last—he was free! But born and reared a captive, he knew naught of the lore in which his wild kindred were versed—and he scarcely knew what to do with his newly-acquired liberty.

Rising upon his hind legs he stared stupidly at the unfamiliar objects surrounding him. As daylight increased, however, he was forced to seek concealment, and with uncertain hops proceeded toward a hollow log near by. As it chanced, a young cotton-tail had already chosen this as his place of rest for this particular day, nor did he propose to yield his rights one inch. Now, our little friend was no coward, so far as those of his own kind were concerned, and for a few minutes a fierce fight ensued. Each thumped his foe right merrily with his strong hind legs until the cotton-tail, being the smaller and weaker, was driven forth, and the white rabbit remained the undisputed lord of his small domain.

During the following hours he slumbered comfortably, but as twilight fell, hunger aroused him. Finally he ventured forth in fear and trembling, to find the new life beckoning him with open arms. Behind him lay a great pine forest, ruddy-black against the western sky. The moon just risen in front of him sparkled upon the fleecy snow. Leaping high in the air, the better to view his surroundings, he went racing away towards the distant farm buildings where he knew food abounded.

As he scampered along, a cotton-tail, fresh from feeding, crossed his trail, and, entering a hole in a small tree-trunk near by, settled himself for a quiet nap. By what little things the lives of the furtive kindred of the wild are saved—



Chums.

"Let's see," said a neighbor to a farmer, whose wagon was loaded down with potatoes, "weren't we talking together last August? 'I believe so.' 'At that time you said corn was all burnt up.' 'Yes.' 'And potatoes were baking in the ground.' 'Yes.' 'And that your district could not possibly expect more than half a crop.' 'I remember.' 'Well, here you are with your wagon loaded down. Things didn't turn out so badly after all,—eh?' 'Well, no-o,' said the farmer, as he raked his fingers through his hair, 'but I tell you my geese suffered awfully for want of a mud-hole to paddle in.'"

A farmer was asked by his own son the meaning of the word "optimist." He said he couldn't give the dictionary meaning of it, but that his brother Henry certainly was one. When they were boys and had to hoe corn in the hot sun, instead of grumbling, Henry would say: "Good, Jim." When we get these two rows hoed, and eighteen more, the pore'll be half done." When they were sent to pick stones, one day, Henry said: "Come on, Jim. I know where there's lots of on, Jim. I know where there's lots of nuggets." And all day the two boys pretended they were gold-seekers in Cali-

forbidding that the children of the neighborhood were terrified when they saw her. One day she went to have her picture taken, and was commanded by the photographer to "look pleasant!" When she succeeded at last, he said: "You look twenty years younger!" When she saw her picture, she found it was possible to look bright and sweet and charming, so she began to cultivate a pleasant expression as a daily habit. When her neighbors asked how she managed to grow so young-looking, she said: "It is almost all done from the inside. You just brighten up inside and feel pleasant."

"There is nothing more catching than a face with a lantern behind it, shining clear through. We have no admiration for a face with a dry smile, meaning no more than the grin of a false face. But a smile written by the hand to God, as an index finger or table of contents to whole volumes of good feeling within, is a benediction. . . . Freshness and geniality of the soul are so subtle and pervading that they will, at some eye or mouth corner, leak out. Set behind your face a feeling of gratitude to God and kindness toward man and you will



and destroyed. Silently upon the white rabbit's track a mink was coming in full pursuit. Upon reaching the fresher trail of the cotton-tail he paused a moment, and then, as the fresh rabbit scent came to him on the crisp air, he turned aside to the adjacent tree. Soon a series of baby-like cries told of the dastardly work being done, and out upon the snow rolled the victim, squealing and feebly trying to dash away from his red-eyed assailant. Suddenly there came a rush of whirring wings and the glare of fierce eyes. A moment more and the hooked beak and claws had done their work, and captive and captor were stilled alike forever, as the great snowy owl, the terror of the small wild things of the north, settled himself to a hearty meal.

But our little friend proceeded on his way, unaware of the swift death he had so narrowly escaped. Reaching his destination, he found a frozen cabbage at the end of the root cellar, which he hungrily attacked. In the midst of his feast he heard a soft footfall behind him, and leaping to one side missed, by a matter of inches, the sly attack of the farmer's dog, that considered himself the night guardian against all marauders. A wild rabbit would have had slight difficulty in evading this fellow, which, after all, was a clumsy beast, but the white rabbit was unversed in all the devices of those who face death in many forms daily, nor had he the speed of his wild brethren. After a lung-tearing effort, he succeeded in reaching a brush-heap some distance away; but so hard pressed was he, that, as he was disappearing, a quick snap from his pursuer tore away a strip of fluffy fur, leaving a long, ugly gash upon his flank.

For some hours the dog made the darkness hideous to his trembling prisoner by his repeated yelping as he dug and tore at the brush in an unavailing effort to secure him. Finally he grew weary of so unprofitable a sport and betook himself to his warm kennel, where, perhaps, he continued hunting white rabbits in his dreams.

Meanwhile, the wounded rabbit lay beneath the trampled branches, shaking with pain, fear and hunger. As daylight dawned, he crept farther into his refuge, but had hardly composed himself before a sound of human voices and footfalls again brought him keenly alive to his situation. Nearer and nearer they approached until, with a crashing of branches, his retreat was trampled upon. Stiff and sore, he jumped out and away. Bang! Bang! rang a number of guns, and zip! zip! tore the shot around him. Luckily, it was only a number of such sportsmen as usually congregate in the country at Christmastide, unused to shooting, and who have more to fear from each other's guns than has the game they hunt.

Running painfully away from the sound of guns and voices, he now sought a last hiding-place in the bottom of a hollow elm. As he lay panting and sick at heart, a wave of homesickness rolled over him for his warm pen and the caressing arms of his little mistress, whom he was fated never to see again.

His hurried entrance into the elm had been witnessed, and fate was approaching him in a new form. A native in blue jeans and corduroy coat, and a kindly-faced gentleman dressed in a gray shooting jacket, in whose capacious pockets more than one limp rabbit lay stiffening, came silently to the tree. It looked black enough now for our friend, to be sure, for the farmer carried in a bag under his coat a beady-eyed ferret which he played in the opening and remained kneeling against the trunk, while his friend, a never-failing shot, stood at a convenient distance away with his gun ready.

The rabbit, pain-racked and weary, was equal to but one last effort. As the ferret came upon him, he leaped over its head, and, dashing to an opening, jumped right into the arms of the farmer, where, shivering with fear, he cuddled down as he used to do in the arms of his little mistress.

"I say, Jack, this isn't a cotton-tail," said this worthy, holding him up by the ears, "it's a tame rabbit that has escaped from someone."

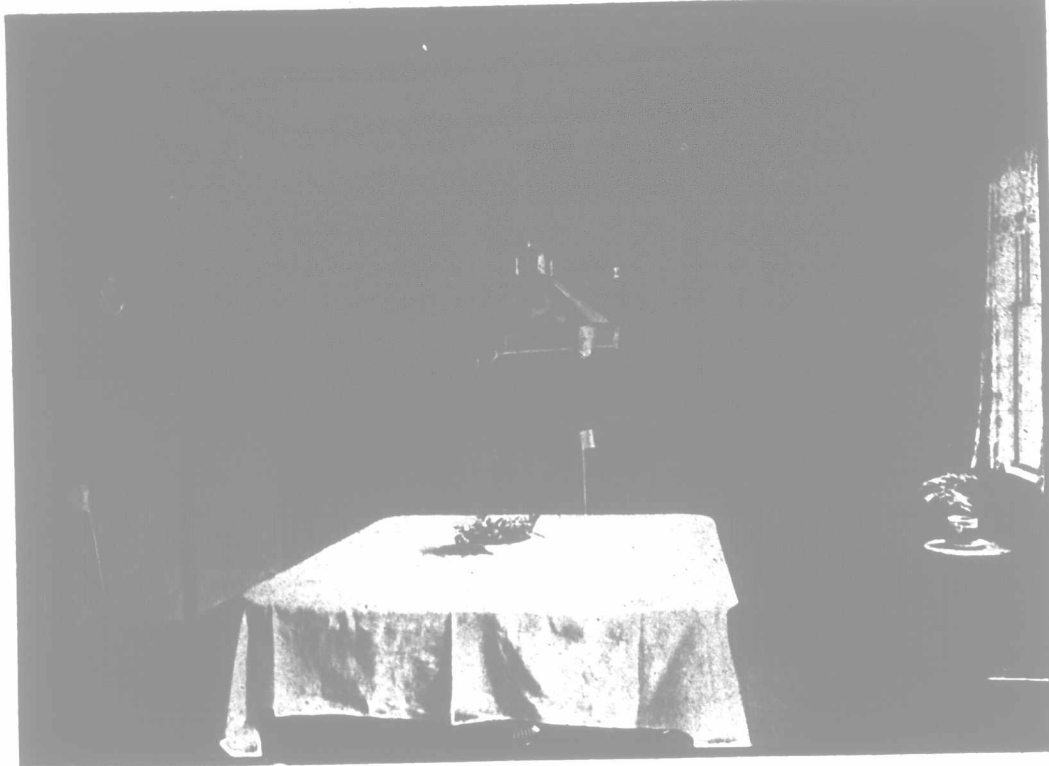
"So it is," said his friend, drawing nearer. "He's wounded, too. Poor fellow, he's scared to death. Let's keep him alive. To-morrow's Christmas, and I'd like to have him."

The next day broke beautiful and cold.

Outside, the people on the streets of a certain great city hurried on their way with tingling cheeks and cold toes. But within all was warmth and happiness, for it was Christmas Day. The cares of the office and factory were put aside, and everyone turned to his neighbor with a kind smile and a warm handshake, as the Christmas spirit leveled distinctions and made all equal—for a day.

In the corner of one particular parlor, covered by a large sheet, in its chaste glory, stood a heavily-loaded Christmas-tree. What excitement prevailed among the youngsters of that home! Not that they didn't know what was on it—most-ly. No! no! Why, bless my heart! from the time shortly before daylight, when little Bob had awakened the rest by cracking English walnuts, which Santa had left on his iron bedstead, they all had hovered around and beneath that tree. Lying at full length, and gazing upward beneath the sheet, they had seen with delight the good things displayed thereon.

But one thing did puzzle them. A square box fastened to a stout limb would at times wiggle and twist as though it contained some live thing. Bob thought it must be a hen. Willie just knew it was the pup he had written old St. Nick. for; but Bess, with that superior wisdom that a lady attains after eight years of experience in this troublesome world, declared it must be the little sister she had prayed for.



A Dignified Dining-room.  
(By courtesy of Suburban Life.)

At last the time came to unload the tree. First of all, Daddy took down the square box and read on the cover, "To the Kiddies; from Uncle Jack." Cautiously he opened it, and there, crouched upon some soft batting was—what do you suppose?—why, our old friend, the white rabbit, very much frightened and very sore, but in kind hands now, and let us trust he never again wanders into unknown perils among his furry kinsmen, the denizens of the underbrush.

Note.—Only one, Kenneth Tuttle, guessed correctly what the little animals in the man's arms, shown in Beaver Circle a few weeks ago, were. They were young foxes.

### The White Bird.

Take me away to Nowhere Town,  
White bird that sings!  
I will be light as thistledown  
Between your feathery wings.

Over the fields of iris flowers,  
Beyond the sea,  
On to my land of drowsy hours  
Fly swift and free!

Take me away to Nowhere Town,  
White bird that sings!  
I will be light as thistledown  
Between your feathery wings

## The Ingle Nook.

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

### Your Vote and Influence.

(A paper read by Mrs. Buchanan at the Women's Institute Convention, Owen Sound.)

Nearly three years ago, I had the honor of reading a paper at our first County Convention. At that time I chose as my subject, "Woman's Place in the World," and I endeavored to show that woman was made as an helpmeet and as an equal to man, but how all down through the ages she had been kept in subjection, as an inferior, as a plaything, as a slave, and as a beast of burden even, but how in those latter and more enlightened days in which we are living, she was taking her place alongside of man as God intended her to do; and I advised the members of the Women's Institutes to still march on along the line of progress. To read, to think, to study, and to pray that we may still go on from strength to strength along the road that leads to perfection.

howling, fighting sort, who want to make themselves conspicuous. I do wonder that they adopt the methods they do, yet I understand that they do it on the principle that Governments only yield to pressure, but it would be far better to go about it calmly, and quietly, and sanely, and I venture to predict that Votes for Women will come just as surely, as Christmas comes once a year, or that spring follows winter and summer follows spring. Because no man or woman lives unto himself or herself. Their interests are too closely related. What affects one affects both, therefore the condition of the whole ought to be the concern of each separate part, and, as Tennyson has said:

"The woman's cause is man's. They rise or sink together, dwarfed or God-like, bond or free,  
Not like to like, but like in difference.  
Yet in the long years liker they must grow.  
The man be more of woman, she of man,  
The gain in sweetness and in moral height,  
The mental breadth, nor fail in childhood's care,  
Nor lose the childlike in the larger mind.  
Till at the last she sets herself to man,  
Like perfect music unto lovely words."

It is all very well for some people to find fault with modern conditions, and declare that Woman's place is in the home. It is, to a great extent, but not always. Woman's place is to do her duty wherever she finds herself. What about the "three-women-to-one-man" cry of Great Britain? What about the women in our large cities who are forced to go out and earn a living? A business woman has said that very few women go into business from choice, but from necessity. Not all of them have got homes of their own in the true sense of the word; very likely they would be glad if they had, but since they have not, we must provide as best we may for modern industrial problems. There are thousands and thousands of women and children working in factories in the Old Land under Acts that are very unfair to them.

Then, there are the farmers' wives, and all the other estimable women of this country. Most of them have to work hard to help to pay the taxes. Why should they not have a say in the way such money should be spent? Most of them have abundantly proved their ability to acquire sound knowledge, to reason clearly, and judge accurately, while many a man on the voters' list is not too bright mentally, but just because he is set up with a pair of pants on, and is called a man, he thinks he knows it all.

Perhaps the most of you have heard of the English lady who complained that her coachman had a vote while she had not. One day she was asking him if he was going to vote, but instead of patting it in plain words, she said, "John, do you intend to exercise the franchise?" "What may that be, ma'am?" said John. "Is that the new 'oss'?" Then there was the Scotchman who was hurrying to the poll. A friend spied him on the way, and called out: "Noo Sandy, see and vote against the Peers." "Awa' wi' yer blethers," said Sandy, "Whatever wad the steamboats dae without the Piers?" There are lots of other cases, ad infinitum.

Those who are opposed to Woman's Suffrage contend that possessing the franchise would interfere with woman's domestic duties. Does it interfere with man's business? Very seldom, unless he puts in his time "yarning" in the village store or in the blacksmith shop, about things he knows very little about. Such men generally like their wives to stay at home, to see after things, and maybe even do the chores. They are too lazy to drive her to church on Sunday, or to a prayer-meeting, and an Institute meet-







### This Home-Made Cough Syrup will Surprise You.

Stops Even Whooping Cough Quickly. A Family Supply at Small Cost.

Here is a homemade remedy that takes hold of a cough instantly, and will usually cure the most stubborn case in 24 hours. This recipe makes sixteen ounces—a family supply. You couldn't buy as much or as good ready-made cough syrup for \$2.50.

Mix two cups of granulated sugar with one cup of warm water, and stir 2 minutes. Put 2½ ounces of Pinex (fifty cents' worth) in a 16-oz. bottle, and add the Sugar Syrup. This keeps perfectly and has a pleasant taste—children like it. Braces up the appetite and is slightly laxative, which helps end a cough.

You probably know the medical value of pine in treating asthma, bronchitis, and other throat troubles, sore lungs, etc. There is nothing better. Pinex is the most valuable concentrated compound of Norway white pine extract, rich in guaiacol and all the natural healing pine elements. Other preparations will not work in this formula.

The prompt results from this inexpensive remedy have made friends for it in thousands of homes in the United States and Canada, which explains why the plan has been imitated often, but never successfully.

A guarantee of absolute satisfaction, or money promptly refunded, goes with this recipe. Your druggist has Pinex or will get it for you. If not, send to The Pinex Co., Toronto, Ont.



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When will womankind learn the lesson that the use of depilatory lotions and powders only stimulate and increase a growth of hair on the face? We have spent time and money advertising the fact that depilatories, no matter how fanciful the name is, are worthless. Electrolysis is positively the only treatment that will eradicate

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Forever. We assure satisfaction in every case. Our method is safe, sure and practically painless. Moles, Warts, etc., also successfully treated. If you live out of town come during the holidays for treatment. Write for particulars and handsome new booklet "E."

Hiscott Dermatological Institute, 61 College St., Toronto. Estab. 1892

## Cowan's

### Cake Icings

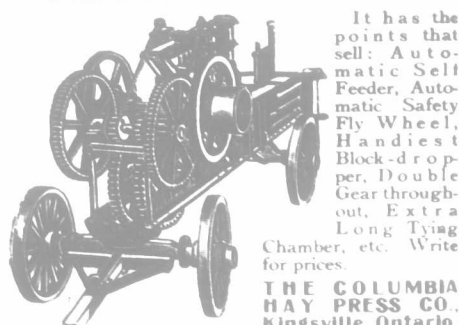
If you had trouble with prepared Cake Icing, it was not Cowan's.

Even a child can ice a cake perfectly, in three minutes, with Cowan's Icing. Eight delicious flavors. Sold everywhere.

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THE COLUMBIA HAY PRESS CO. Kingsville, Ontario.

PLEASE MENTION THIS PAPER

all we hold sacred, we shall help to bring into existence for Canada and Canadians a wider, fuller, richer life. Could we send to this University sons and daughters of integrity, perfect self-control and sound body, I feel sure the Faculty would be grateful to us. And it is quite within our province to equip the young manhood and young womanhood of future Canada physically, mentally and spiritually. So, let us be pre-eminently homemakers, if we would lay the foundation of national greatness.

We should be very thankful for the phenomenal growth of our Institute under the able superintendence of Dr. Creelman and Mr. Putnam. When, fifteen years ago, a few women met in a sitting-room to talk over household matters, they did not dream that their little gathering was the nucleus of an institution comprising many thousands; neither did they expect that the watchword which was soon after adopted would be interpreted in its broadest sense. Yet these things have come to pass. We have gone from the simple principles of cooking and hygiene, to the deepest principles of character-building. We have done much for many causes, private and public, and have cultivated a broader outlook on the world in general. Whether we are rich or poor we can live in an atmosphere of "sweetness and light," as well as in one of unrest and gloom. It is not so much what we have, but what we are, that counts.

In these days we hear much of altruism and ethics; but generally these words are used in such a far-off connection we feel we have no interest in them. And yet, the spirit of the word altruism is simply regard for others. May we not well take it for the spirit of our home life; and surely we do not need to go beyond our own homes to give moral training where it will be most effective. Its influence may reach far out beyond our knowledge. If we can do the outside work, by all means let us do it, but if we cannot, do not let us feel that our life is circumscribed. There is one vital point we must not forget: What we would have our families be, we ourselves must be. We need not try to teach them: truth unless we hold, fervently and high, a love of truth. We must feel it a crime to be moody, discontented or envious, since this reacts on those around us. All the great leaders of the world, whether generals, foremen or house-mothers, have had the faculty of inspiring their followers. The very air about them was permeated with cheerfulness and hardihood, so that their retinues found unpleasant tasks agreeable, and the seeming unattainable easy of access. When the cheerful temperament is not natural to us, it can be cultivated, and will be found an important factor in the making of a successful home.

With the growth of the Women's Institute has come the popularizing of technical knowledge of housekeeping. We are learning that cooking, sewing, and all the simple works of the home are not haphazard occupations, but arts to be delighted in, and by which we can contribute our share to the world's happiness and well-being. By all means, let us send our daughters to the Macdonald Institute, the Lillian Massey School, the Technical School, or some other establishment where they will be taught the underlying principles of household arts.

As Dr. Creelman said last year of the farmers, we, too, "are just on the edge of things." Simplicity in methods and furnishings is growing in favor; science is coming to our aid by lightening labor, and we are realizing that home-building is not a mere matter of dollars and cents. Cleanliness, nutritive food, books with all their world of knowledge, and above all, regard for others; these are in reach of rich and poor alike.

Kate Douglass Wiggin, in her new novel, "Mother Carey's Chickens," refers to that old metaphor of the family circle in this way: "There are none too many of them. There are parallel lines, never meeting; there are squares, triangles, rhomboids, but few circles." Is not this a pregnant thought, especially when we remember that the ripple of circles ever widening goes out to eternity?

We women of Ontario need to pause and think gravely of the conditions in the vast territory to the west of us, whether our young people are drifting. This territory is being largely settled by people from lands where the home is not so treasured as it is with us; from lands

whose traditions place the wife and mother on a level with the beast of burden. Our short experience with them has shown them ready to adopt better ways of living. Our opportunity to spread the gospel of home-making is before the influx becomes so great that we shall be overcome by the magnitude of the task.

Truly, "we are just on the edge of things," and the vast future before us as Canadians, just coming into our own, is filled with great vistas of progress.

May it be true of us all what was said by a German writer of a woman:

"Men at her side grew nobler, girls purer, and all through the town, the children were happier that pulled at her gown."

### Recipes in Season.

Oatmeal Drop Cakes.—1½ cups skortening (half butter and half lard is good), 2 cups brown sugar, 2 eggs, 1 teaspoon soda, 2 cups oatmeal, ½ cup sour milk. Beat all together and let stand for 2 hours, then stir in 2 cups flour, drop in spoonfuls on a buttered pan, and bake. Use plenty of oatmeal foods and suet foods during cold weather. Both are heat-producers.

Curing Pork in Pickling Brine.—For each 100 lbs. meat use 7½ lbs. fine salt, 2 lbs. refined sugar, ¼ lb. saltpetre. Rub the meat well with this mixture and pack closely in a barrel. Cover with about 10 gallons cold water, and place a weighted cover to press the meat well down. In about three weeks drain off the brine, reboil it to insure against impurities, and add original ingredients to make up the amount needed. When cold, pour over the meat and leave about four weeks longer, after which the pieces may be washed and hung to dry, and smoked or stored.

Spiced Corn Beef.—Make a brine of salt and cold water strong enough to bear a potato. Add a pinch of saltpetre, but this must be used sparingly, as it makes beef hard.—2 ounces will be enough. Lay the beef in the brine, turning it occasionally for two or three weeks. To have corned beef for all summer, make a brine as above and boil it down, say from three pailfuls to two pailfuls. It will keep sweet until late in summer. If you wish the beef spiced, add allspice, cloves, etc., to the brine.

Milk Soup.—Mash through the ricer 2 good-sized boiled potatoes. Cut an onion fine, and add; then add 6 whole allspice, 2 tablespoonfuls tapioca, and 3 pints cold water. Cook until the tapioca is clear, then add 1 pint boiling milk, 1 rounded tablespoon butter, salt and white pepper to season. Let boil up once, then serve for supper with croutons or small biscuits.

Baked Apples with Hot Sauce.—Remove the cores and stand the apples in a baking-dish. Fill up the cavities with sugar, and pour half a cupful of water into the dish, and bake until apples are soft, adding a little more water if necessary. Remove the apples, beat together 1 tablespoon butter and 4 of sugar, and stir into the dish. Add 1 cup water and stir over the fire until cooked. Now add a teaspoon vanilla, pour the sauce over the apples, and serve.

Cream of Rice Pudding.—Wash half a cupful of rice through several waters, put with 2 quarts milk, a small cup of light-brown sugar, a pinch of salt, and a scant teaspoon of vanilla flavoring. Bake slowly for two or three hours, stirring two or three times during the first hour of baking. If properly done, this is a delicious pudding, but the baking must be slow to have it right.

Have you secured some of our premiums for sending in new subscriptions to "The Farmer's Advocate and Home Magazine"? If not, look up our announcement on page 2071 of this issue and note how easily you can earn a Complete Kitchen Equipment, a Set of Scissors, Set of Staghorn Carvers, an Austrian China Tea Set, and many other valuable premiums.

### THE NEWEST STRATAGEM

Wild Duck—"Now, then, fellows, make a noise like a gasoline motor, and those fool hunters will think we're aeroplanes." —Puck.

### "The Farmer's Advocate" Fashions.



6844 Bath Robe, Small 34 or 36, Medium 38 or 40, Large 42 or 44 bust.



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Please order by number, giving age or measurement as required, and allowing at least ten days in which to receive pattern. Price, ten cents per pattern. Address, Fashion Dept., "The Farmer's Advocate," London, Ont.

### Christmas Dusk.

Come, little boy, to mother's knee,  
The Christmas twilight trembles down  
With rose-tints for the wondrous tree,  
And rose-glow for the snow-clad town.  
And all is marvellous—but you  
Most marvellous of all to me,  
For I may hold you as I do,  
As Mary held Him on her knee

And He was sweet, and He was fair,  
As are all mothers' little boys;  
His lips, His smile, His eyes, His hair,  
To Mary were her chiefest joys.  
And she would sing to Him, as I  
Sing while the sun dies in the west,  
I hear your weary, sleepy sigh  
As Mary heard His on her breast

And in the after years, I think  
When He was treading sorrow's way  
And held the bitter cup to drink,  
She brooded on the happy day  
When He ran singing through the room  
And found a hundred things to do  
To drive away all chance of gloom—  
And was a little boy, like you.

So drop your toys and let us sing  
The songs that heart and home have  
blest,  
For love is more than anything,  
And life is work, and play, and rest  
And Mary's was the mother-heart,  
A heart of love all fair and fine,  
That into tender throbs could start  
For just a little boy, like mine.

Across the years I reach to her  
And touch her white and empty hands,  
Down all the ages seems to stir  
A message that she understands,  
The subtle rapture that I keep  
Skinned in the very soul of me,  
When I may hold you here, asleep,  
As Mary held Him on her knee

—Walter D. Nesbit, in Harper's Weekly



### The Garden of a Com- muter's Wife.

(By Mabel Osgood Wright.)

CHAPTER VI.—Continued.

Be this as it may, Bugle and Tally-ho have become intelligent members of the family in a short time, and made their first trip up two flights of stairs in a very creditable manner without undue bumping. How they will go down is another matter. If they hesitate, Bluff will probably push them, for he gave both Lark and Pat their first lessons in stair climbing.

The clouds are breaking away, and I think my mind is also clearing as regards my garden. I will let it keep its inheritance. The Mother Tree shall be its keynote.

From these two windows I gain not only a bird's-eye view of the stretch of our own land, once a farm lying a little aside the top of one of a series of sloping hills, but also its relation to the surrounding country.

The house stands higher than the road, from which it is divided by some great elms, clusters of shrubs, and a bit of grass. This bank is kept from falling into the road by a wall, the stones of which are hidden by a tangle of honeysuckle. At the north a driveway to the stable makes the division from a strip of woodland from which the underbrush has been trimmed. This wood straggles in a half circle toward west and south, out into a hillside pasture. Back of the house is the vegetable garden, plotted in neat squares, edged with fruit bushes and trees, on the farther side of which lie the long tangled beds of mother's hardy flowers.

These beds start at the Mother Tree at the north-west corner. On the right, the higher ground makes a sort of wall, against which honeysuckle has been let to run wild. On the left the ground is level. The walk falls gently with the curve of the land until it stops abruptly at what was once a strawberry bed, but is now a flat bit of grass perhaps fifty feet square, beyond which is the wild land, only broken by the old cart track and a meandering cowpath that threads through hemlocks, birches and cedars to a disused bar gate.

Behind the apple tree, screening it from the stable, is a stiff arbor made picturesque by sturdy climbing roses that have been long unpruned. One thing is certain, the hardy beds are in a charming spot, with a high background on one side for the taller plants, and open a lovely vista from the seat under the tree and down over the fields. This much shall remain—the great clumps of herbaceous flowers transplanted, thinned out and alleaved by shrubs, making a sort of cloister walk from the past through the present to the future.

How everything material and spiritual, if it is well rounded, groups itself into the mystic three. Past, present, and future. God, nature, man. Father, mother, child.

Ah, it is shaping, my Garden of Dreams! The eye of the garden shall be the sundial, that bit from Evan's past blending with mine.

Though I dislike a set-straight garden above all things, Evan says that a bit of formality often clarifies wildness and gives it focus, so some beds of summer flowers around the sundial with grass left between for paths, will make a restful break in the view. Beyond, we might continue a plant-edged walk in the wake of the cowpath quite down to the old bars, and turn them into a stile. However, I must not plan too fast, but leave beyond the dial to Evan. That is the future part of the dream. Mother wrote in her garden journal now open in my lap, during the first year of her marriage, "David has had a seat made under the sweet-apple tree and a walk running from it to the strawberry bed. I shall plant my flowers on either side, both for convenience, and to frame path and flow as well. If I may plant

ten or fifteen feet every year, I shall be content, for the garden should be a pleasure, not a burden."

Dear mother barely reached the strawberries in those five years; but, in spite of godmother's fifty pounds, I too must be careful about expansion; for, as Evan says, it isn't the first outlay of strength or money that will upset us, but the fixed charges, while father jokingly adds that the cause of much physical and all mental disease is "biting off more than one can chew." How I shall have to set my teeth and quell my garden appetite! The garden will be so much more lovable continued as it began. New things and places are so terribly lonely. Fortunately, after all, there is but one suitable spot hereabout for a garden, and that is where it now is.

How blessed I am in having the responsibility and temptation of choice removed from me! I might break loose and be ruined by visionary schemes. Heredities may be horrible ghoulish things if they are bad, but when good, surely nothing can equal them. Imagine how terrifying it would be if we had to decide the beginnings of things for ourselves: as to what race we should belong, what sex, and all that, instead of placidly coming out of unconsciousness to find it all arranged! Then, suppose falling in love and going away with one's husband were not a custom all over the world, how strange it would be!

It is growing dusky in among the rafters, but the Garden of Dreams is every moment growing more distinct to my waking vision. To-night Evan must put it all down on paper for me, so that I shall not forget or make mistakes. What is that noise? Really, I can imagine that I see strange shapes moving among the rafters. The dogs are all alert. Ah! only the telephone bell in the hall.

Evan has just called me to say that he has arranged to stay at home all day to-morrow! We have agreed not to use the long-distance line except for emergencies, such as his being unexpectedly detained in town over night, for it is so expensive. But he knew how I have been longing to have him here for a week day, so that we might realize everything again, and decide the garden plan, and he would not keep me waiting to know of it for even an hour.

It is quite dark now when he comes home, so we carry a flash lantern when he takes his after-dinner-cigar walk, that we may neither run into trees nor fall into the new violet frame while we tell of the day's work. Oh, the joy of the telling, when every commonest detail means so much!

Really, I must be careful what I say, or rather sing, in the presence of these dogs; for a moment ago I gave vent to my feelings of joy in a bit of a song that was between a cheer and a yodel, and those two hounds first raised their heads and bayed as if it was night, and the full moon shining in their kennel, then dashed about the attic at full cry. Next Lark took it up. Bluff tried to copy until he choked, and Pat yelped.

Delia the waitress immediately appeared with a white, scared face, out of breath from running up stairs, saying that in the old country such keening always meant death.

Hardly had she disappeared when Martha Corkle the decorous, knocked, begged pardon, but the sound of the hounds had given her such a turn she'd nearly dropped the soup kettle, and it made her feel more settled and at home than anything since she came. From that moment Bugle and Tally-ho never lacked food, but, on the other hand, any dog mischief that was done in Delia's precinct was laid to their charge.

Tim is coming up the road with the great wagon and two big boxes, one long and one square. What can they be? The sundial, of course, pedestal and top. For, though it



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WHILE WRITING ADVERTISERS MENTION THE FARMER'S ADVOCATE.

left before we did, being freight, it was delayed.

To-morrow Evan will be here, and we will have a festival and set the dial; that is, if we can agree upon the place, and it is good weather. Ah, there is a red streak in the west, and it is widening. It is almost train time. I will drive down for Evan myself, and tell him that our talisman has come.

### VII.

#### A BIRTHDAY BREAKFAST.

November 1. Why has no one written a November rhapsody with plenty of lilt and swing? The poets who are moved at all by this month seem only stirred to lamentation, giving us year end and "melancholy days" remarks, thereby showing that theory is stronger than observation among the rhyming brotherhood, or else that they have chronic indigestion, and no gardens to stimulate them.

Of course I do not know what November might mean to someone living away from his kind without love, in a cheerless house, lacking adequate means of heating or light, with no bath-tub, and a well low from summer droughts, the sort of being whose intelligence dries away in autumn like the leaves, and whose breath of life merely flickers half dormant until the spring sun forces it to quicken in spite of itself.

The strange part of it is that so many city folk associate this state of woodchuck existence with the real country life, whereas the intelligent country life, if it is lived, and not merely toyed with in an amateurish manner, is a full, sparkling, strenuous course, calling for a more inventive brain and greater activity than that of the city, in proportion as its satisfaction is greater. The difference is that in the city, at best, one lives the life of others, the life of the shop, the street, the crowd, while in the country one must live one's own life. A selfish, warped, narrow life, some say? Doubtless it might be; but if one has a home to keep, a husband weaving his web daily to and fro, and a country doctor, vibrating with sympathies of many lives, for a father, the pulse can never beat slow, nor the heart grow cold.

I am daily realizing that it is a liberal education of both heart and head simply to be Evan's wife and my father's daughter. Father's private means, though small comparatively, enable him to keep abreast of outside affairs and the newest methods of his profession, so that he can do the best possible for his poorest patients, regardless of fees or criticism, thus carrying comfort and hope miles beyond the usual limited circuit when controlled by mere pay.

The saying that shoemakers' children lack shoes" is simply a criticism of the relations between the children and their cobbler parent. The parental attitude toward his trade evidently was not such as to make it interesting in his children's eyes, otherwise they would not only have thought shoes desirable, but have learned to make them.

Father's attitude toward his profession has always made it seem to me like the highest expression of the religion of humanity. To do the highest duty amid the scenes in which his life is set from lonely farm to the hovels of factory and brickyard workers in the town, the healer of the body must also at need become the soother and strengthener of the soul. Was it not this revelation of spiritualized humanity that the Master preached and practiced when he cleansed the lepers, bade Lazarus come forth, and comforted the dying thief with the positive promise of things beyond?

I think, also, that a certain knowledge of the processes of natural law, so that the facts of it come to one unconsciously and as a matter of course, prevents many shocks and jars that would otherwise meet a woman on entering the world that lies outside of the protecting doors of home. While a knowledge of the evil of breaking these laws, as seen

by the results, even in one little hospital, must make one's relations to the race more sane and sound.

Surely the country life is not as wholly compounded of vegetation as the city dweller imagines. The cockney who thinks that he has summed up the essence of torpidity when he speaks of people who "vegetate in the country," simply illustrates his own ignorance and that he does not even know the life-history of a turnip. For, taking the term literally, few things live more hurried and pushing lives than vegetables.

Vegetables are chiefly articles upon which the very life of the world depends; they do a great deal of work, and do it in private—a method of which most people have no conception, as not to live in public is to them the equivalent of death. Also, to be a successful vegetable requires great energy; for not only must it work hard during the growing season, keeping its health and digestion in order often on scanty and variable rations, but it must provide, either by seed or the storing up in bulb, tuber, or rootstock, enough strength to insure its further existence.

To return to November and its praise: mine is conclusive, being both material and sentimental, and stated in a few words. To-day has been one of the happiest days of my life, and it is November 1st. True, Aunt Lot surprised us by coming in by the evening train, Reverend Jabez being now located at Centreville, thirty miles off, to get some winter flannels that she left packed away and offer me advice as to household management. But she has not damaged the day, for father has kindly lured her into his study; she merely acted as a sort of nightcap under whose influence, together with the result of an entire day out of doors, Evan and I crept somnolently into our den to sit in the big armchair in front of the wood fire, and whisper about things that could be perfectly well spoken aloud; but to make people tiptoe and whisper is Aunt Lot's effect upon everyone.

"Why are we sitting here, instead of entertaining your Aunt Lot?" Evan asked contentedly, without making any effort to move.

"Because we are rude and perfectly frank heathens. We don't care to see her, for she wasn't nice about our being married, and so we do not pretend we do. We do not care a bit because the roof of the parsonage pantry leaked and spoiled her season's jam and jelly; we don't care that the 'four youngest' are badly disciplined and a trial; instead, we feel very sorry for them."

"Then she is sure to have speeches to make about my duty to you, quite forgetting that in her wrath two years ago she summed you up as 'one of those foreign adventurers.' Yet I suppose I must go in," I said dubiously.

But I didn't go. Evan said it would be undutiful to him.

I wonder if she and the Reverend Jabez ever sit in the same chair in front of the fire! Evan says they probably have an oil stove, and, of course, no one would care to sit by that!

The day began for me at half past six o'clock. Not that I got up then. I merely roused sufficiently to go over to the window-seat and see if the weather promised well.

It has been an opalescent day. When I looked out this morning, the opal was dull, with barely a flush; everything was a mysterious pearly gray. Season, location, time, equally veiled by the fog that remained to tell of yesterday's downpour. One thing, however, this fog surely indicated—that the weather was still mild, as a cold, north-west wind would have swept the world dry, while the first thing that the window revealed would have been the top of the bare, gray maples that bound us on the lower side of the hill. The silence was complete, not



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even the plash of a drop of water or a ripple in the sea of fog. Suddenly the sun, only clear of the horizon, burned solidly through the mist, a fire opal whose glints of green, scarlet, yellow and purple were caught by every leafless twig and woven in a filmy tissue that covered the grass.

All day yesterday a flock of dependent robins took shelter in the honeysuckles of the porch and in the hemlock hedge. The old birds were silent, the young males, however, occasionally giving a call or trying a few notes, as it were, to cheer themselves; but it was a sad autumnal sound, with a sort of pibroch wail to it.

This morning, however, they were all darting about across the lawn, and one, close above the window, confided to my ear quite four bars of an advance spring song.

How we are all more or less creatures of Sun, Shadow, and Imagination, impressed or depressed by weather! As the musical robin flew to join his mates, I remembered that it was to be a holiday with Evan at home, and the consequent agreement to disagree between Exact Time and Breakfast, so I curled up comfortably in bed again, not intending to doze, but merely realize the luxurious state of things. This enjoyment of an occasional late breakfast is one of the joys of the commuter and his wife which is denied the blase beings who always breakfast in winter at eight or nine. As for spring and summer mornings, who but a cripple could lie in bed?

In spite of my intention, I fell asleep, for the next thing I remember, the tall clock down in the hall whirred and struck eight times, accompanied by the baying with which the bounds always answered its warning when within earshot. Evan was missing, while strange noises on the piazza at the back of the house whetted my naturally rampant curiosity, and made me dress in a very incoherent fashion and hurry downstairs.

Where was Evan? Father was at the breakfast table. Delia fluttered about in a conscious way, and as I entered the room, Evan dodged in at the opposite side through a long window, looking quite guilty and with marks of the soil on the knees of his knickerbockers, his feet, and hands; the latter he hid in the pockets of his coat. Then, as I

glanced at the table almost covered with flowers, I realized that it was my birthday, and that somebody had taken a long drive to the greenhouse in town while I was sleeping, and somebody else had a present that he was trying to conceal.

"Which am I to sit by for these?" I said, as I turned from the flowers to the two men, who looked expectant.

(To be continued.)

TRADE TOPIC.

RURAL TELEPHONES.—Bound Volume Sent Free on Request.—In connection with the growth of rural telephone companies throughout the Dominion, a new book has recently appeared on the market which will be of special interest to many of our readers. Realizing the need for practical information on this subject, the Northern Electric & Manufacturing Company has recently revised into a large volume, its bulletin on "How to Build Rural Telephone Lines." This book, bound in stiff, cloth-covered binding, contains over a hundred profusely-illustrated pages of comprehensive information, carefully indexed into seven chapters. "How to Build Rural Telephone Lines" deals with the complete story of the telephone, mutual and stock company organization, line-survey and construction, the installation of the instruments, the material required, the instrument itself, and the Government regulations on the subject. With this book in hand, anyone who can follow printed instructions, can handle the complete organization and construction of a rural telephone company, from start to finish. Notwithstanding its cost, the Northern Electric will send this book free—but only on request, and when the name of "The Farmer's Advocate" is mentioned. Readers who are in any degree interested in the subject of rural telephones, should write for it.

GOSSIP.

Truman Bros., Bushnell, Ill., December 14th, sold at auction 40 Shire mares for an average of \$724, the highest price being \$2,000. Only two sold for four-figure prices, which speaks well for the average quality of the offering.

Eighty-five head of Aberdeen-Angus cattle, imported by J. D. Larkin, of Niagara, left quarantine at Quebec two weeks ago. It is said there were thirty-seven head more in quarantine at St. John. Mr. Larkin is importing quite extensively of horses, sheep and cattle. He has figured prominently in Clydesdale exhibitions, and has imported a good many Shropshires.

THE RIGHT KIND OF BULLS.

In changing his advertisement from sheep to Shorthorn bulls, John Miller, Brougham, Ont., says that "I never had a better trade for rams than I have had this fall. The young bulls I am now offering are a very good lot. I think the Princess Royal bull the best calf I have ever bred, and some of the others are not far behind him. Last year I sold ten bulls on mail orders, and they were all satisfactory to the buyers. In order to make quick sales, I am offering these bulls at very reasonable prices." Men wanting good stock bulls should not fail to get in touch with Mr. Miller. Look up his advertisement.

LEICESTER BREEDERS' AFFAIRS.

At the twenty-second annual meeting of the American Leicester Breeders' Association, held in Guelph, Ont., December 6th, 1910, the secretary's report showed a good year's business, and a healthy, active state of the organization. After paying all bills, there was a balance of \$380.31 in the coffers of the society. Instructions were carried for the issuance of Vol. 7 of the Flockbooks. Twenty-five dollars was voted to the Winter Fair, Guelph, and \$10 to the Manitoba Winter Fair. A grant of \$25 was voted for any Leicester breeder who shall win the Drummond Cup with Leicester sheep at the Winter Fair.

The following judges were recommended for 1911: Toronto, Ont., John Orr, judge; G. B. Armstrong, reserve; Chicago, Ill.—Wm. Douglas, judge; James

Snell, reserve. London, Ont.—H. B. Jeffs, judge; Frank Kelly, reserve. Guelph, Ont.—James Douglas, judge.

The following officers were elected: President, Andrew Whitelaw, Guelph, Ont.; Vice-President, James Douglas, Caledonia, Ont.; Sec.-Treasurer, A. J. Temple, Cameron, Ill. Directors—Alex. Hastings, Crosshill, G. B. Armstrong, Teeswater; Oliver Turnbull, Walton; A. W. Smith, M. P., Maple Lodge—all of Ontario.

A group of hoboes waiting for their coffee to boil in a tomato can were telling of their hard-luck experiences.

"I've had worse luck than anybody," said one of them challengingly, after listening to the others' tales of woe. "Once I had to sleep from Wilkesbarre to Perth Amboy on top of a flat car loaded with hard coal."

"And what do you think?" he went on. "Every car on the next train that pulled in from the same direction was loaded with soft coal!"

"What's a dilemma?" asked one small boy.

"Well," replied the other, "It's something like this: If your father says he'll punish you if you don't let your mother cut your hair, that's a dilemma."

Poultry Awards at Ontario Provincial Winter Fair.

BARRED PLYMOUTH ROCKS.—Cock—1, John Pringel, London; 2 and 3, I. K. Millard, Dundas; 4, G. Norton, Carleton Place; 5, Hodge & McLuckie, Toronto. Hen—1, 3 and 5, I. K. Millard; 2, John Pringle; 4, Thos. Andrew, Pickering. Cockerel—1, 3, 5, 6 and 7, I. K. Millard; 2, John Pringle; 4, Thos. T. Winstanley, Guelph; 8, John Gormley, Pickering; 9, H. Thorne, London; 10, G. Morton. Pullet—1, 3 and 4, I. K. Millard; 2, John Gormley; 5, Hodge & McLuckie; 6 and 7, John Pringle; 8, Thos. Holmes, London; 9, G. Morton; 10, Thos. Andrew.

WHITE PLYMOUTH ROCKS.—Cock—1 and 5, C. J. Whitney, Galt; 2, B. H. Gilbert, London; 3, J. L. Brown, Seaforth; 4, Geo. A. Robertson, St. Catharines; 6, R. Holman, Toronto; 7 and 9, Fred. A. Andrews, London; 8, Jas. McPherson, Mt. Forest; 10, Jas. W. Shields, Hamilton. Hen—1, 7 and 9, J. L. Brown; 2 and 6, C. J. Whitney; 3, Geo. Robertson, Ottawa; 4, Harry C. Pettit, Winona; 5, B. H. Gilbert; 8, R. Holman; 10, W. E. Pantler, Preston. Cockerel—1, Fred. A. Andrews; 2, C. J. Whitney; 3, B. H. Gilbert; 4, Geo. Robertson; 5, 6 and 10, J. L. Brown; 7, Frank G. Dulmage, London; 8, R. Holman, Toronto; 9, C. J. Whitney. Pullet—1 and 3, J. L. Brown; 2, C. J. Whitney; 4, Geo. Burgess, London; 5, Frank C. Dulmage.

BUFF PLYMOUTH ROCKS.—Cock—1, Jno. Bawden, Ridgetown; 2, Underwood & Campbell, Berlin; 3, A. C. Bricker & Dr. McDowell, Listowel. Hen—1 and 3, Jno. Bawden; 2, A. C. Bricker & Dr. McDowell. Cockerel—1, Jno. Bawden; 2 and 3, Underwood & Campbell. Pullet—1, Jno. Bawden; 2 and 3, Underwood & Campbell.

S.-C. RHODE ISLAND REDS.—Cock—1 and 4, Hughes & Taylor, London; 2, T. A. Faulds, London; 3, Gunn Langlois, Montreal. Hen—1 and 2, T. A. Faulds; 3, J. E. Klager, Hespeler; 4, Hughes & Taylor. Cockerel—1, C. Vogt, Toronto; 2, Hughes & Taylor; 3, Russell Farm, Toronto; 4, Gunn Langlois, Toronto; 5, J. E. Klager; 6 and 10, Wm. J. Mihm; 7, John Crawford & Sons, Mitchell; 8, T. A. Faulds; 9, G. L. Garrett, Guelph. Pullet—1 and 6, Jno. Bradley, Milton; 2, Hughes & Taylor; 3, 8, 9 and 10, T. A. Faulds; 4, Wm. J. Mihm, Guelph; 5 and 7, J. H. Eyer, Toronto.

R.-C. RHODE ISLAND REDS.—Cock—1, S. Charlton, London; 2, John Luscombe, Merton; 3, Howard B. Smith, Winona; 4, Hughes & Taylor. Hen—1, C. J. Daniels, Toronto; 2, S. Charlton; 3, C. Vogt; 4, Jno. Luscombe. Cockerel—1, 3 and 4, S. Charlton; 2, C. J. Daniels; 5, Hughes & Taylor. Pullet—1, Hughes & Taylor; 2, S. Charlton; 3, J. & A. Bowling, Stratford; 4, C. Vogt; 5, Jno. Luscombe.

GOLDEN-LACED WYANDOTTES.—Cock—1 and 2, Robert Patterson, Guelph; 3, Wm. Daniel & Fenn, Plattsville, Hen—

Watch Where You PUT YOUR MONEY

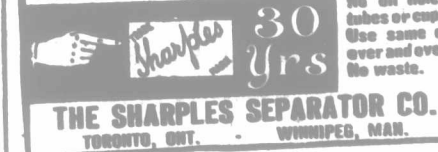
Do not deal with strangers. Take no chances with "peddlers'" cream separators. Do not be deceived by catalogues or advertisements. You can and should see for yourself The World's Best Cream Separator. Write us for the name of some neighbor who is using, or some reliable dealer in your neighborhood who is selling the universally satisfactory



SHARPLES Tubular Cream Separator

The latest product of the oldest cream separator concern on this continent. The manufacture of Tubulars is one of Canada's leading industries. When you buy a cream separator buy the best; buy one that you will be proud to have your neighbor see. You know who builds the Tubular and who guarantees it. Write for Catalog No. 193

Dairy Tubulars are self-cleaning. No oil holes, tubes or caps. Use same oil over and over. No waste.



THE SHARPLES SEPARATOR CO. TORONTO, ONT. - WINNIPEG, MAN.



Advertisements will be inserted under this heading, such as Farm Properties, Help and Situations Wanted, and Pet Stock. TERMS.—Three cents per word each insertion. Each initial counts for one word and figures for two words. Names and addresses are counted. Cash must always accompany the order. No advertisement inserted for less than 60 cents.

CHEESE FACTORY FOR SALE.—In good dairy district; well equipped; everything in good repair. For particulars apply to: J. A. Thistles, St. Paul's, Perth Co.

EXPERIENCED FARM HAND, married, wishes situation on farm after January 7th, where wife is needed in house. Monthly or yearly engagement. Write, stating wages: Percy Last, Paris Station, Ontario.

FOR SALE.—Iron, Pipe, Pulleys, Belting, Rails, Chain, Wire Fencing, Iron Posts, etc.; all sizes very cheap. Send for list, stating what you need. Agents wanted; good commission. The Imperial Waste & Metal Co., Queen St., Montreal.

MEN WANTED.—Age 18-35, for firemen, \$100 monthly, and brakemen, \$80, on all Canadian railroads. Experience unnecessary; no strike. Positions guaranteed competent men. Promotion. Railroad Employing Headquarters—over 600 men sent to positions monthly. State age; send stamp. Railway Association, Dept. 545, 227 Monroe Street, Brooklyn, N.Y.

VANCOUVER ISLAND offers sunny, mild climate; good profits for ambitious men with small capital in business, professional, fruit-growing, poultry, farming, manufacturing, lands, timber, mining, railroads, navigation, fisheries, new towns; no thunder storms, no mosquitoes; no malaria. For authentic information, free booklets, write Vancouver Island Development League, Room A 102, Broughton St., Vancouver, B.C.

The Delhi Tannery Wanted—2,000 horse and cattle hides to tan for robes, coats, etc. All kinds of hides, skins and furs dressed soft and pliable. Deer skin for buck, or with the hair on. Send them to me and have them dressed right. B. F. Bell, Delhi, Ont.

Why Use a Pure-bred Bull?

The dairyman who is after the dollars needs better cows of the dairy habit to help him in his business. To raise better cows, he must use a sire who can transmit the dairy habit, from ancestors bred for generations for dairy purposes, to his offspring.

MONRO & LAWLESS, Elmdale Farms, Thorold, Ontario

Jane—I've something on me mind. 'Arry, that I hardly knows how to tell yer. 'Arry—Aht wiv it. Jane—I'm afraid yer won't marry me if I tells yer. 'Arry—Aht wiv it. Jane—I'm a sonnambulist, 'Arry. 'Arry (after prolonged pause)—Never mind, Jane, it'll be all right. If there ain't no chapel for it, we'll be married at a registry.



# I Wish YOU Were Like Mr. Fraser

I'd like you to do like he did—for your own good. Like a great many other people he had seen many of our advertisements. Had read some of them, just as you are reading this one. The time came when he was figuring on a new roof and he read one of our advertisements very carefully.

He thought, as maybe you do, that a wood shingle roof was the least expensive, and though not the best nor most durable, was at least "good enough" for him. But our ads said that Oshawa Steel Shingles cost about the same as wood shingles and were less expensive to put on. That sounded promising.

Further he read that slate cost six times as much, and so-called "ready-roofing" cost thirty-three times as much. That Oshawa Steel Shingles were fire-proof, leak-proof, rust-proof, rot-proof, rain-snow-and-wet-proof, need no painting, no patching.

In fact Oshawa Steel Shingles, according to our advertisements, seemed to be everything man could desire in a roof—the absolutely perfect roof. So good that he doubted the truth of our claims. "It sounds too much better than ordinary roofs" he thought. (He'd heard other roofing people talk extravagantly, and thought, "Oh, yes, it's easy to talk big,

but will the roof make good?"). Then he read my guarantee. That impressed him as being very straightforward, dependable. "If that means all it says: 'A perfect roof for 25 years, or a new one free' he thought, "why this advertisement is no idle boast." "By using Oshawa Steel Shingles I settle the roofing question definitely for at least 25 years. If this concern is financially responsible that guarantee seems to cover everything."

"Guess I'll send for their booklet, anyway, and look into the facts a little further." And he did. He got all the facts, before deciding. That's where I wish you were like him. I want you to get all the facts about Oshawa Steel Shingles. THEN you can decide. You only fool yourself if you doubt one word I say about our Steel Shingles. You take no risk. My guarantee protects you against disappointment—absolutely. You'd not think of using any other kind of roofing if you actually KNEW how good a roof my Oshawa Steel Shingles make.



## Do Send for My Book of Facts About Roofs

Be curious, enquiring. Look into the facts. The book is free. Write to our nearest office for a copy.

G. A. Pedlar

### How Do You Figure?

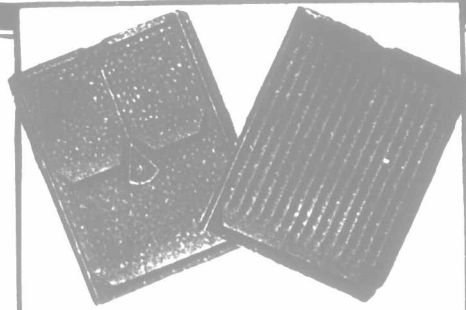
Figure the cost now, material and time, for every kind of roof you know anything about. Oshawa Guaranteed Steel Shingles, you'll find are as cheap to begin with as the poorest wood shingles. It's a fact. Figure the cost per year of each kind of roof. Compare the estimated life of other roofs with the guaranteed life of Oshawa Steel Shingles, and your figures will show you which is the best and cheapest roof for you to buy.

### When I say "Guaranteed for 25 years" I mean it—No "ifs" About it

Some makers of metal shingles (notice they don't say "steel") talk boastfully about roofs of theirs which have stood the test for 25 years back. But if you buy their shingles do they positively guarantee to you a perfect roof, no leaks, no rusted holes, no need for paint, no bother whatever, for the next twenty-five years? That is what you are interested in—your own roof—not some other fellow's. Do they? Pedlar does. You may know people who have lived to be eighty, but that is no guarantee of your life. Oshawa Steel Shingles are the only kind that are clearly, positively, responsibly, guaranteed for any period.

### Can You Afford Any Roof which is NOT Guaranteed?

Can you afford to put on a roof that will need some fixing next year, more fixing again the following year, and so on until it needs so much fixing that an entirely new roof is necessary? Can you afford to use "metal" shingles that are said to be good when you can get steel shingles that are guaranteed for 25 years—actually good for a hundred. Why not settle the roofing question at once for twenty-five years? Why doesn't the other fellow guarantee his roof if it actually is as good as Oshawa Steel Shingles?



### Here Are Pictures of Two Patterns of Oshawa Steel Shingles (Guaranteed)

They come in squares 10 x 10 ft.—covering 100 square feet of roof. They are stamped from heavy sheet steel—28 gauge steel—then galvanized with zinc, so thoroughly that all kinds of weather can't make a rust-hole in them for longer than your lifetime. They are made in the biggest factory of its kind in the British Empire—and there's \$35,000,000 capital and 50 years of success back of the guarantee that goes with them.

### PEDLARIZE All Your Buildings, Inside and Out

By "Pedlarizing" I mean doing for the whole building what Oshawa Steel Shingles do for the roof. I make other kinds of sheet metal building materials—for ceilings, side walls, outside—that make your whole building more fire-proof, more sanitary, more beautiful, more substantial. You should know about them. May we send you a booklet and pictures that tell the whole story? It's free. Write for it today.

### Costs far less than Any other kind of roof

Oshawa Steel Shingles cost only \$4.50 for a hundred square feet. You'd have to spend as much right away for wood shingles. You'll be lucky if the wood-shingle-roof lasts as long as ten years—whereas my shingles are guaranteed to give you a perfectly good roof for at least twenty-five years. Oshawa Steel Shingles cost less to put on, and need no painting. And you can be sure an Oshawa Shingled roof will outlast any other roof you can put on. That's worth something, isn't it?

### Rain-snow-wind-proof Fire and lightning proof No painting No patching

No bother at all with your Oshawa Shingled roof once it's on your building. Notice we don't merely say this. We guarantee it, with a guarantee that is legally binding—good for a new roof right up to the last day of the twenty-fifth year. That means it must be absolutely weather-proof. Also it is fire-proof, wind-tight, safe against lightning, and keeps the building warmer in winter and cooler in summer. And you need never worry with repairs. Isn't this the kind of roof you want?

### What More Can You Ask of a Roof?

A roof that is practically one big seamless sheet of tough, galvanized steel, without a crevice or crack anywhere for water or wind to get into, that keeps out the heat of summer and the cold of winter—an absolutely perfect roof for the next twenty-five years. Why should you even consider any other kind? Certainly you should not fail to get all the particulars about a roof like this. Don't you think so? Then write for our book—today. It is free—from our nearest office.

## The PEDLAR PEOPLE of Oshawa

Established 1861

HALIFAX 16 Prince St. PORT ARTHUR 45 Cumberland St. 313A	ST. JOHN 42-46 Prince William St. WINNIPEG 76 Lombard St.	QUEBEC 127 Rue de Peur REGINA 1901 Railway St. S.	MONTREAL 321 3 <sup>rd</sup> Crug St. CALGARY Room 7, Crown Block	OTTAWA 423 Sumner St.	EDMONTON 633 5th Ave. North of Jasper	TORONTO 111-113 Bay St. VANCOUVER 319 Pender St.	LONDON 86 King St. CHATHAM 200 King St. W. VICTORIA 434 Kingston St.
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1, Wm. Daniel & Fenn, 2, John McPherson, London; 3, Claud Hughes, Ingersoll. Cockerel—1, Claud Hughes, 2 and 3, W. A. Becker, West Lorne; 4, R. H. Saunders, Faling. Pullet—1 and 2, R. H. Saunders; 3, Robt. Patterson; 4 and 5, Jas. Baptie, Springville.

SILVER-LACED WYANDOTTES.—Cock—1, Peep o' Day Poultry Farm, London; 2, Wilber Lemon, Lynden; 3, Jas. Arthur, London. Hen—1 and 2, Wilber Lemon; 3, Wilber Lemon. Cockerel—1, Alfred Flawn, London; 2, Peep o' Day Poultry Farm; 3 and 4, Wilber Lemon. Pullet—1 and 2, Alfred Flawn; 3 and 4, Jas. Arthur.

BLACK WYANDOTTES.—Cock—1 and 2, Hugh A. Rose, Welland; 3, A. & T. Readwin, Guelph. Hen—1 and 3, A. & T. Readwin; 2, Hugh A. Rose. Cockerel—1 and 2, Hugh A. Rose. Pullet—1, A. G. H. Linton, Mt. Forest; 2 and 3, Hugh A. Rose.

BUFF WYANDOTTES.—Cock—1, Jas. Dundas, Toronto; 2, Spix & McK., Toronto; 3, R. Holman. Hen—1 and 3, R. Holman; 2, Philip Berdus, Wellby. Cockerel—1 and 2, Bernard W. Shields, Toronto; 3, Spix & McK., Pullet—1 and 4, Spix & McK.; 2, A. H. Linton, Toronto; 3, Dundas; 4, Spix & McK.

SILVER-LACED WYANDOTTES.—

### Send your Christmas Remittances

BY Dominion Express Money Orders and Foreign Drafts PAYABLE ALL OVER THE WORLD

If lost or delayed in the mails a refund will be promptly arranged, or a new order issued without further charge.

TRAVELLERS' CHEQUES ISSUED Money sent by Telegraph and Cable to all Principal Cities

Agencies Located in all C.P.R. Stations

If you are a SHEEP BREEDER you should subscribe to the World's Most Beautiful and Practical Sheep Paper, "THE SHEPHERD'S JOURNAL," Edited by Shepherd Boy. Canadian subscription \$1 per year. Send for free sample copy. Address: 14 LaSalle St., Chicago, Ill.

—Cock—1, Robt. Patterson; 2, W. Turnbull, Guelph; 3, J. R. Bailey, Guelph. Hen—1, Geo. Burrows, Guelph; 2, Robt. Patterson; 3, C. Schelzer, Fonthill. Cockerel—1 and 2, Robt. Patterson; 3, Geo. Burrows. Pullet—1, A. H. Switzer, Woodham; 2, Geo. Burrows; 3, J. R. Bailey.

WHITE WYANDOTTES.—Cock—1, 3 and 7, Russell Farm; 2, Wm. Wilson, Guelph; 4, Wm. Arnold, Westboro; 5 and 9, W. Dawson, London East; 6, R. W. Vout, Brockville; 8, Wm. Archer, Paisley; 10, Wm. J. Pickrell, Toronto. Hen—1, 3 and 5, Russell Farm; 4, R. W. Vout; 2, 7 and 8, Russell Farm; 6 and 9, Wm. Dawson; 10, Wm. Wilson. Cockerel—1, 2 and 5, W. Dawson; 3, 4, 6 and 10, Russell Farm; 7, Sid Saunders, Guelph; 8, R. W. Vout; 9, W. Howard, Guelph. Pullet—1, W. Dawson; 2, Russell Farm; 3, 4 and 6, R. W. Vout; 5 and 10, Sid Saunders; 7, Russell Farm; 8, Wm. Archer, Paisley; 9, Wm. Arnold.

PARTRIDGE WYANDOTTES.—Cock—1, Frank Glass, London Junction; 2, J. R. Johnson, Leamington; 3, McCutcheon & Hedden, London. Hen—1, 2 and 3, Adams Bros., London; 4, Puff & Lochr, New Hamburg. Cockerel—1, Adams Bros.; 2, McCutcheon & Hedden; 3, Frank Glass; 4, J. R. Johnson. Pullet—1,

McCutcheon & Hedden; 2, Adams Bros.; 3, S. Rundle; 4, Adams Bros.

COLUMBIAN WYANDOTTES.—Cock—1, S. J. Schelley, Brantford; 2, H. W. Partlo; 3, T. H. Scott. Hen—1, S. J. Schelley; 2, T. H. Scott; 3, H. W. Partlo, Ingersoll. Cockerel—1, 2, 3 and 4, S. J. Schelley. Pullet—1, H. W. Partlo; 2, 3 and 4, S. J. Schelley.

S-C. BLACK MINORCAS.—Cock—1, T. A. Faulds; 2, R. Smith & R. Alben, Toronto; 3, Wm. Ellis, Prescott; 4, Fred D. King, Aylmer. Hen—1 and 3, R. J. Teskey, St. Mary's; 2, T. A. Faulds; 4, G. C. Cook, Toronto. Cockerel—1 and 1, T. A. Faulds; 2, A. C. Moyer, Waterloo; 3 and 6, G. C. Cook; 5, R. J. Teskey; 7, 8 and 10, A. Goebel, Mitchell; 9, Wm. Nickle, Sarnia. Pullet—1, 8 and 9, T. A. Faulds; 2 and 4, G. C. Cook; 3 and 5, A. Goebel; 6 and 7, Chas. Gortvett, Sparta; 10, R. J. Teskey.

GOLDEN-PENCILLED HAMBURGS.—Cock—1, R. Oke; 2, Galt E. Brown, Hen—1 and 2, R. Oke; 3, G. & J. Bogue, Strathroy. Cockerel—1 and 2, R. Oke; 3, G. & J. Bogue. Pullet—1 and 2, R. Oke; 3, Galt E. Brown.

SILVER-SPANGLED HAMBURGS.—Cock—1, R. Oke; 2, G. & J. Bogue; 3, Jas. Baptie, Springville. Hen—1, R. Oke; 2 and 4, Harry T. Lush, Peterboro; 3, S. C. Spies, St. Thomas. Cockerel—1, S. C. Spies; 2, R. Oke; 3, Jas. Baptie. Pullet—1 and 3, Jas. Baptie; 2, R. Oke; 4, Harry T. Lush.

BLACK HAMBURGS.—Cock—1, Jas. Baptie; 2 and 3, R. Billings, Woodstock. Hen—1, R. L. Wheadon; 2, R. Oke; 3, R. Billings; 4, A. E. Doan, Thornd. Cockerel—1, Harry T. Lush; 2, R. L. Wheadon; 3, Fred D. King. Pullet—1, 2 and 4, R. L. Wheadon; 3, Harry T. Lush.

GOLDEN-SPANGLED HAMBURGS.—Cock—1 and 3, Jas. Baptie; 2, Harry T. Lush. Hen—1, 2 and 3, Jas. Baptie. Cockerel—1, Samuel C. Spies; 2, R. Oke; 3, Jas. Baptie. Pullet—1, R. Oke; 2 and 3, Jas. Baptie.

SILVER-PENCILLED HAMBURGS.—Cock—1, Richard Oke; 2, G. & J. Bogue; 3, W. C. Mills, Woodstock. Hen—1, R. Oke; 2, W. C. Mills; 3, Galt E. Brown. Cockerel—1 and 3, R. Oke; 2, G. & J. Bogue. Pullet—1 and 3, R. Oke; 2, G. & J. Bogue.

LIGHT BRAHMAS.—Cock—1, H. W. Partlo; 2, C. H. Wilson; 3, H. W. Partlo. Hen—1, 2 and 3, H. W. Partlo. Cockerel—1 and 2, H. W. Partlo; 3, L. C. Howell, Galt; 4, Douglas T. Taylor, Sherbrooke. Pullet—1 and 3, Douglas T. Taylor; 4, H. W. Partlo; 2, L. C. Howell.

DARK BRAHMAS.—Cock—1 and 2, L. C. Sage, London; 3, C. A. R. Tilt, Doon. Hen—1 and 2, L. C. Sage; 3, C. H. Wilson. Cockerel—1 and 2, L. C. Sage; 3, C. A. R. Tilt. Pullet—1 and 3, C. H. Wilson; 2, L. C. Sage.

PARTRIDGE COCHINS.—Cock—1, Hugh A. Rose, Welland; 2, Jas. Pettit; 3, F. Wales, Milton. Hen—1, 2 and 3, A. E. Shethor, Brandon, Man. Cockerel—1 and 3, Hugh A. Rose; 2, F. Wales. Pullet—1 and 2, Hugh A. Rose; 3, A. E. Shethor.

BLACK COCHINS.—Cock—1, C. A. R. Tilt; 2, P. A. McIntosh, Spencerville. Hen—1 and 2, C. A. R. Tilt; 3, P. A. McIntosh. Cockerel—1, C. A. R. Tilt; 2, P. A. McIntosh. Pullet—1, C. A. R. Tilt; 2, P. A. McIntosh.

BUFF COCHINS.—Cock—1, Holmhurst Poultry-yards, Whitby; 2, Hugh Wyatt, London; 3, Hugh A. Rose. Hen—1 and 3, Holmhurst Poultry-yards; 2, Hugh A. Rose. Cockerel—1, Holmhurst Poultry-yards; 2 and 3, Hugh Wyatt. Pullet—1 and 2, Holmhurst Poultry-yards; 3, Hugh A. Rose.

WHITE COCHINS.—Cock—1, Hugh A. Rose; 2, David Bogue, Lambeth; 3, H. T. Lush. Hen—1, 2 and 3, Hugh A. Rose. Cockerel—1 and 2, Hugh A. Rose. Pullet—1, 2 and 3, Hugh A. Rose.

BLACK LANGSHANS.—Cock—1, C. A. R. Tilt; 2 and 3, R. McCurdy, London. Hen—1, C. A. R. Tilt; 2 and 3, R. McCurdy. Cockerel—1 and 2, C. A. R. Tilt; 3, R. McCurdy. Pullet—1, C. A. R. Tilt; 2, R. McCurdy; 3, A. S. Hamilton, Toronto.

A. O. C. LANGSHANS.—Cock—1, W. J. Teale, Guelph; 2 and 3, Wm. Pearson, Guelph. Hen—1, W. J. Teale; 2, Wm. Pearson; 3, Geo. Burn, Tillsonburg. Cockerel—1, Wm. Pearson; 2, Geo. Burn; 3, W. J. Teale. Pullet—1, Geo. Burn; 2, W. J. Teale; 3, Wm. Pearson.



**BUFF ORPINGTONS.**—Cock—1 and 2, J. W. Clark, Cainsville; 3, E. Wicks & Son, Bedford Park; 4, H. A. Hoffman, Ridgetown. Hen—1 and 2, J. W. Clark; 3, Hugh A. Scott, Caledonia; 4, H. A. Hoffman. Cockerel—1, 2 and 5, J. W. Clark; 3, H. A. Hoffman; 4, Geo. W. Clarkson, Summerville. Pullet—1, 4 and 7, J. W. Clark; 2, F. J. Ferguson, Berlin; 3, 6 and 8, H. A. Hoffman; 5, E. Wicks & Son; 9, Harry T. Lush; 10, R. Holman, Toronto.

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**R-C WHITE LEGHORNS.**—Cock—1 and 2, I. K. Martin, Galt; 3, H. Thorn, London. Hen—1, 2 and 3, I. K. Martin. Cockerel—1, 2 and 3, I. K. Martin. Pullet—1, 2 and 3, I. K. Martin.

**S-C WHITE LEGHORNS.**—Cock—1 and 3, Wm. Ferguson, Brantford; 2 and 4, F. Wales; 5, Jas. L. McCormack, Echo Place. Hen—1 and 3, Durst Bros., Benmiller; 2, A. H. McLean, London; 4, Wm. Ferguson; 5 and 7, F. Wales; 6, C. H. Greensides, Mt. Forest; 8, Jas. L. McCormack; 9, W. O. Robertson, Eden Mills; 10, Jno. Holloran, Brantford. Cockerel—1, 2 and 3, Wm. Ferguson; 4, 5 and 10, F. Wales; 6 and 8, C. H. Greensides; 9, J. Harrison, Collingwood; 7, E. Sayer, Milton. Pullet—1, 4 and 5, F. Wales; 2, J. L. McCormack; 3, 7 and 10, Wm. Ferguson; 6, Wm. Ferguson; 8, Durst Bros.; 9, Horn & Trotter, Lindsay.

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**S-C BROWN LEGHORNS.**—Cock—1, Peter Scott; 2, J. G. Taylor, Woodstock; 3, Jacob Streib, West Lorne; 4 and 5, G. G. Henderson, Hamilton. Hen—1, Orr & Creeden, Brantford; 2, J. G. Taylor; 3 and 4, Jacob Streib; 5, H. F. Becker, Waterloo. Cockerel—1, J. G. Taylor; 2 and 5, Orr & Creeden; 3 and 4, Peter Scott; 6, 7 and 8, H. F. Becker; 9, G. G. Henderson; 10, T. H. Scott, St. Thomas. Pullet—1, 4, 5, 7 and 10, Orr & Creeden; 2, W. A. Gurney, London; 3, Jacob Streib; 6, H. F. Becker.

**BUFF LEGHORNS.**—Cock—1, C. H. Toveil, Galt; 2 and 3, R. B. Graham, Galt. Hen—1, 2 and 3, R. B. Graham. Cockerel—1, 2, 3 and 4, R. B. Graham. Pullet—1, 2, 3 and 4, R. B. Graham.

**SILVER DUCKWING LEGHORNS.**—Cock—1 and 2, M. R. Milroy, Athens. Hen—1, A. J. George, London; 2 and 3, M. R. Milroy. Cockerel—1, Geo. Burn; 2 and 3, A. J. George. Pullet—1, M. R. Milroy; 2 and 3, A. J. George.

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**BLACK MINORCAS.**—Cock—1, Ross Swartout, Newport; 2, Dr. J. N. McRae, Galt; 3, T. A. Faulds. Hen—1, Dr. J. N. McRae; 2, T. A. Faulds; 3, Ross Swartout; 4, B. J. Mountjoy, London. Cockerel—1, Dr. J. N. McRae; 2,

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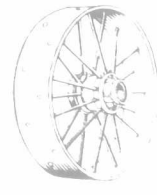
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For forty-six years renowned as the best of the breed. Six large importations since February 1, 1910 (the last arrived October 12th), insure fine selection, as each animal was individually selected for size, bone quality and excellence. If you want choice stallions or mares, write for catalogue, illustrated from life.

W. S., J. B. & B. DUNHAM WAYNE, ILL.

### Messrs. Hickman & Scruby

Court Lodge, Egerton, Kent, England. EXPORTERS OF PEDIGREE LIVE STOCK OF EVERY DESCRIPTION.

During the fall months the export of heavy horses will be a specialty. A trial order will convince you that it is to your advantage to do business with us. Write for full particulars, stating what you require.

**NOTICE TO HORSE IMPORTERS**

**Gerald Powell,** Commission Agent and Interpreter, **Nogent Le Rotrou, France,** will meet importers at any port in France or Belgium, and assist them to buy Percherons, Belgians, French Coach horses. All information about shipping, banking and pedigrees. Many years' experience; best references; correspondence solicited.

### A. A. PALMER & SONS

Orleans, R. F. D. 19, Belding, Ionia Co., Michigan.

We are breeders of the very best kind of PERCHERONS

We sell nothing but meritorious stock, and our stock sells on its merits. Young stock of both sexes for sale. Write us now.

PLEASE MENTION THIS PAPER.

### QUESTIONS AND ANSWERS. Miscellaneous.

#### SHORT COURSES—WEIGHT OF SHORTHORNS.

1. Is there going to be a short course for farmers at the Agricultural College in judging live stock and grain? If so, what time does it open?  
2. Is there any standard of weight for Holsteins, or for Shorthorns, and what is it?  
T. D.

Ans.—1. Yes; see advertisement in our Christmas Number, page 1922.  
2. No.

#### CAPACITY OF CISTERN.

Please let me know how many barrels of water a cistern contains which is 5 feet 2 inches square, and 6 feet deep. Explain how it is worked out in the simplest way. A SUBSCRIBER.

Ans.—31½ barrels, approximately, taking 1 barrel as 32 gallons. Computation: 5 feet 2 inches square, and 6 feet deep, gives 160½ cubic feet as capacity of cistern; 1 cubic foot of water weighs 62.32 pounds, 1 gallon weighs 10 pounds, and 32 gallons make one barrel. Hence 160½ ÷ 62.32 = 31.19+ barrels.

#### BUCKWHEAT STRAW FOR SHEEP.

Is it safe to feed buckwheat straw to sheep, especially at mating time? We have a lot of buckwheat straw, and very little pea straw, and are feeding the buckwheat straw as a substitute. We have been told that said straw is too heating, and that there is more or less grain in the straw, which would make it more heating. If we must not use it entirely, could we feed it once a day, and pea straw, say at night. We are using oats as a grain ration. No roots.  
D. C. C.

Ans.—Buckwheat straw contains a higher content of protein and crude fibre, and a lower content of fats than wheat straw. While apparently little experimental knowledge is obtainable concerning the straw of buckwheat, we can see no reason why it should be injurious.

#### DEHORNING CATTLE—CASTRATING CALVES.

1. Which is the best time of year to dehorn cattle, and also when is it best to castrate calves?  
2. What is the best feed for an old cow whose teeth are bad, to fatten her for beef?  
A READER.

Ans.—1. There is no better time for dehorning than in the winter, provided the animals are stabled. They may be let out to water, but should not be kept out more than an hour at a time in very cold weather, and should not be allowed access to a straw stack until the wounds have healed, as the chaff and dust may set up inflammation and suppuration of the wounds. Calves may be unsexed any time, if in warm, clean, dry quarters.  
2. Cut hay, chaff or silage, a mixture of ground oats and peas, or barley, and pulped roots.

#### REGISTERING SHIRES.

I have a heavy draft Shire filly which has four registered crosses on the sire's side.  
1. Can I have her registered in the Canadian Shire Studbook?  
2. If I can, whom do I apply to?  
3. Is there anything else required of me other than to have pedigrees of these four different sires?  
A SUBSCRIBER.

Ans.—If your filly has four crosses of registered Shire sires, and the necessary particulars can be established in due form, you can have her recorded. For full information, write "The Accountant," National Live-stock Records, Ottawa.

#### WE DIDN'T.

"P. S." writes a contributor to this department from the penitentiary at Deer Lodge, Montana. If you can't use these Chestnuts, don't send any regrets; I have plenty of my own.—Everybody's for December.



### The Marlin Repeating Shotgun

Made famous by its dependability. The solid top and side ejection keep gases and powder away from your eyes; help quick, effective repeat shots. Rain, sleet, snow and foreign matter can't get into the action. The mechanism is strong, simple, wear-resisting. The double extractors pull any shell instantly; two special safety devices prevent accidental discharge while action is unlocked, and an automatic recoil block makes handling harmless. All Marlins are strongly made, finely balanced, accurate, hard hitting guns, and are the quickest and easiest to take down and clean. Illustration shows Model 24 grade "A" 12 gauge; it has all the features that make for a perfect gun. Send three stamps postage today for our 136 page catalog describing the full Marlin line. The Marlin Firearms Co. 113 Willow Street New Haven, Conn.

### H.-A. Galvanized Steel Tanks



Water Storage and Stock Watering Tanks, Thresher Tanks, Tank Heaters, Hog Troughs, Feed Cookers, Oil and Gasoline Tanks. We guarantee our tanks will not be injured by freezing. Catalogue B on request. We also make a complete line of water well supplies, "Baker" Windmills, Pumps, Cylinders, Gasoline Pumping Engines, etc. Ask for catalogue No. 58.

The Heller-Aller Co., WINDSOR, ONT.

### To Buyers Looking for a Good Stallion:

I have imported Percheron Stallions for years. Always bought from the best breeders in France, and beg to call the attention of prospective buyers to the fact that I have won this year at Toronto first and second aged class sweepstakes and silver medal. Also at Ottawa Fair, first and third in aged class, first, second and third in 3-year-old class, sweepstakes and gold medal. Those horses are beautiful dapple-greys and blacks, three to four years old, weighing 1,800 to 2,000 lbs., with feet and legs that cannot be beat, beautiful heads and necks, the kind that good buyers are looking for. I do not intend, and I will not allow, if I can help it, any one to give me quality prizewinners and a price than I will. Come to the home of the champion prizewinners and judge for yourself.

JOHN HAWTHORNE, Simcoe, Ontario.

### TOP-NOTCH CLYDESDALES

I have 22 Imported Clydesdale Stallions to select from, of different ages, and from such noted sires as the champions Hawatha, Marcellus, Baron of Buchlyvie, Baronson, Hapland's Pride, Silver Cup, Revelanta, Royal Blend, Baron Clyde, Shapely Prince, etc. The breeding is the best, and the individuals second to none. Prices and terms right. Just give me a call and be convinced that you struck the right place. Markham 20 miles north of Toronto, on the G. T. R. Locust Hill Sta., C. P. R., 3 miles. Long-distance phone. Will meet visitors on the shortest possible notice.

T. H. HASSARD, Markham, Ont.

Mount Victoria Stock Farm, Hudson Heights, Quebec. Champion Clydesdales and Hackneys. We have for sale 2 imp. Clydesdale stallions, by Pride of Blacon and British Chief; one imp. Hackney stallion, by Copper King. Prizewinners. Prices right. Long-distance phone. E. Watson, Manager. T. B. Macaulay, Proprietor.

**NEW IMPORTATION OF CLYDESDALES** Superior breeding and quality, selected for the requirements of the Canadian trade—9 stallions, 6 fillies, 3 colts, including prizewinners and champions. This consignment will bear close inspection, and will be sold at moderate profit. Phone connection. GEORGE G. STEWART, Howick, Que.

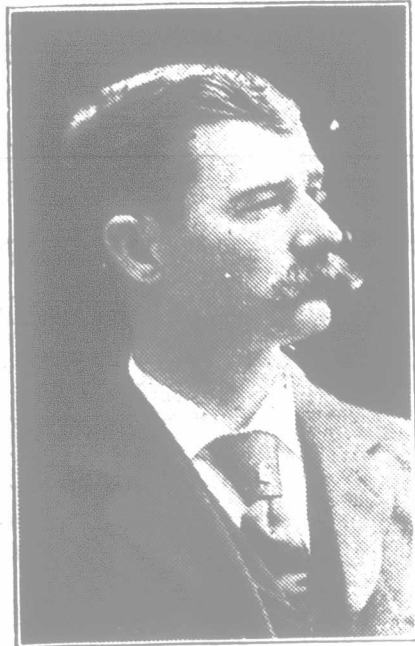
**Imp. Clydesdale Stallions and Fillies** My 1910 importation of Clyde stallions and mares are in my stables at Mitchell. They are ideal in draft character, big in size, toppy, and have perfect underpinning, and bred from the best blood of the breed. Prices right. Wm. Colquhoun, Mitchell, Ont. Phone connection.

**IMPORTED CLYDESDALES AND HACKNEYS** In my stables at Ingersoll, Ont., I have always on hand Clydesdale stallions and fillies, and Hackney stallions, personally selected in Scotland for their high-class type, quality and breeding. Let me know your wants. W. E. BUTLER, INGERSOLL, ONT.

**NEW IMPORTATION ARRIVED** Our 1910 importation of Clydesdale Stallions and Fillies are now at our stables. We can show some of the best individuals and best breeding sires imported. Our prices are right, and terms to suit. Phone connection. JOHN A. BOAG & SON, Queensville, Ont.

**IMPORTED CLYDESDALES AND PERCHERONS.** My 1910 importation are in my stables at Bolton, Ont. There never was a better bred lot landed, nor a better lot of big, typical draft horses, full of quality and with perfect underpinning. Clydesdale stallions and fillies, and Percheron stallions. I will not be undersold. T. D. Elliott, Bolton, Ontario.





J. B. HOGATE, Weston, Ont.

Weston, Ont., and Brandon, Man.

**IMPORTING BARN**

J. B. HOGATE, Proprietor,  
IMPORTER OF

**Clydesdale and Percheron  
STALLIONS**

Clydesdales sired by such noted sires as Hiawatha, Baron of Buchlyvie, Baron Winsome and others. Dams equally as good.

Percherons of the best blood of France.

I can sell you a ton stallion for less money than any man in the business. Don't buy undersized stallions and think you will breed draft geldings and mares from them. Come and see my ton horses and get prices. I will surprise you and save you plenty of money. Weston is reached by the G. T. R. and C. P. R. For further particulars write:

J. B. Hogate, Weston, Ont.



**21 IMPORTED  
Clydesdale Stallions**

My 1910 importation, nearly all 2- and 3-year-olds. They are ideal in draft character, with faultless quality of underpinning, every one will make a ton-horse and over, and they represent the best blood of the breed; they will be priced right and on terms to suit. Farm is two miles from end of street car line. A phone from Guelph will bring a conveyance to meet visitors.

O. SORBY, Guelph, Ont.



**UNION  
STOCK - YARDS Horse Exchange  
WEST TORONTO, CANADA.**

The Greatest Wholesale and Retail  
Horse Commission Market.

Auction sales of Horses, Carriages, Harness, etc., every Monday and Wednesday. Horses and harness on hand for private sale every day.

The largest, best equipped and most sanitary stables in Canada. Half-mile of railway loading chutes at stable door. Quarter-mile open track for showing horses. Northwest trade a specialty. HERBERT SMITH, Manager. (Late Grand's Repository.)

**IMPORTED PERCHERON STALLIONS.**

We have at our stables some of the finest Percheron Stallions ever imported to this country. The large drafty kind, with plenty of good flat bone and the best of movers. Our horses range in age from 2-year-olds to 5-year-olds.

We also have three German Coach Stallions of the true type. We invite inquiries from all intending purchasers, and assure them that they will do well to get our prices and terms before buying, as we are in a position to sell below competition.

R. HAMILTON & SON, SIMCOE, ONTARIO.

**Imp. Clydesdale Stallions and Fillies**

**For Sale** Gentlemen, don't miss this opportunity. I am out for business now that my Toronto and London prizewinners are in my stables at Milverton. I am open to compare prices and quality with any man in the trade. Don't be without a good stallion or mare when I will either buy, sell or exchange for Canadian-bred stallions or workable, sound horses. Write me or call, and you will have every attention.

JNO. SEMPLE, SPRING HILL STUD FARM, MILVERTON, ONTARIO.  
Stations, G. T. R. and C. P. R. Phone connection, long-distance.

**OUR NEW IMPORTATION OF  
Clydesdale Stallions and Mares**

Landed May 20th, consisting of three 4-year-old mares, four 3-year-olds, and two 2-year-olds, by such sires as Baron Millar, Baron Cedric, Dryden, Benedict, and Dunure Blend, and a few stallions by such sires as Baron's Pride, Everlasting, Ruby Pride, and Majestic Baron. These are the best collection of stallions and mares we have ever had, full of quality and size. Phone connection. R. NESS & SON, HOWICK, QUEBEC.

**Clydesdale Stallions and Mares**

JUST THE KIND YOU WANT. WRITE OR CALL ON:  
**Dalgety Bros., London, Ont.**

**IMPORTED CLYDESDALES** Our spring importation of fillies will be selected during the winter months for shipment end of May. Special orders will be filled on commission. Place your order with us now. Every one guaranteed as to soundness and breeding. We have a few choice yearlings on hand which we will sell cheap if bought soon. Ormsby Grange Stock Farm, D. McEACHRAN, ORMSTOWN, P. QUE.

**Imported Clydesdales** My new importation of Clydesdale stallions for 1910 have arrived. They were selected to comply with the Canadian standard, combining size, style, quality and faultless underpinning with Scotland's richest blood. They will be priced right, and on terms to suit. BARBER BROS., GATINEAU PT., QUEBEC.

**QUESTIONS AND ANSWERS.  
Veterinary.**

**HORSE PANTS AND COUGHS.**

Had horse in stable all summer. He commenced to cough about three months ago. He pants and coughs greatly after exercise. W. W.

Ans.—The symptoms indicate heaves, which, if well established, cannot be cured, but if alteration of the structure of the lungs and air cells has not taken place, you may be able to arrest the trouble by the following treatment: Feed first-class hay in small quantities. If working, feed liberally on good oats; dampen all he eats with lime water, and give every morning a ball composed of 1 1/2 drams powdered opium, 2 drams solid extract of belladonna, 1 dram camphor, and 20 grains digitalis, with sufficient oil of tar to make plastic. Roll in tissue paper and administer. V.

**SUPPURATIVE MAMMITIS.**

1. In December, 1909, I saw treatment recommended for suppurative mammitis in a cow. Would the same be all right for the same trouble in a pregnant mare?  
2. Is camphorated oil sweet oil and camphor; all the camphor the oil will take up? B. G.

Ans.—1. The treatment for the trouble in a pregnant mare would be about the same as for a cow, except that it would be wise to omit the purgative. A laxative of 1 pint raw linseed may be given. Follow up with 4 drams hyposulphite of soda three times daily. Open abscesses as they form, and flush the cavities out three times daily with a five-per-cent. solution of carbolic acid. If pus can be drawn off through the teats, dose three or four times daily. Bathe frequently with hot water, and after bathing rub well with camphorated oil.  
2. Yes. Put oil in open vessel, add the camphor, and put in a hot-water bath and keep warm for several hours. V.

**REMARKABLE AND SUCCESSFUL  
TREATMENT FOR  
NAVICULAR DISEASE.**

In your issue of December 1st, I notice treatment recommended for navicular disease. I will give my experience. My driver was lame from the trouble. My blacksmith cured him by shoeing him with shoes with four calkins, one on each heel and two in front, with a space of about 1/4 inch between them. He has cured several others the same way; one was a case of two years' standing. A. B. D.

Ans.—This treatment is certainly as remarkable as it is successful. If your blacksmith would spend a little money in advertising, and be able to secure a patent on the shoe and convince horsemen that he can do as he claims, he can make a fortune in a very short time. At the same time, I hope you will pardon me for being somewhat skeptical, and venturing the opinion that "your blacksmith" has no idea of the nature of the disease, and in all probability has not an intelligent idea of the anatomy of the navicular joint, else he would not claim ability to cure by the use of two toe calkins. V.

**Miscellaneous**

**DRYING COW - GNAWING COLTS.**

1. Which is the best method to practice in drying up a milking cow? Is it of any benefit milking them on the ground?

2. I have two colts which chew boards very much while running loose in a box stall, and even gnawed some of the rungs of their rack in two. They are being fed plenty of hay, and half a gallon of bran and oats each night and morning. SUBSCRIBER.

Ans.—1. Cut the rations of the cow down to a great extent, withholding succulent foods and concentrates, do not milk out thoroughly. Cannot see any advantage arising from milking on the ground.

2. It would appear either that the colts have not enough exercise, or else their teeth are sore. Turn them out as much as possible in the day time, and have their teeth examined.

**HORSE OWNERS! USE**



**CAUSTIC  
BALSAM.**

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

THE LAWRENCE-WILLIAMS CO., Toronto, Canada

**Dr. Page's English  
Spavin Cure**

For the cure of Spavins, Ringbone, Curbs, Splints, Windgalls, Capped Hock, Strains, or Bruises, Thick Neck from Distemper, Ringworm on Cattle, and to remove all unnatural enlargements.

This preparation (unlike others) acts by absorbing rather than blistering. This is the only preparation in the world guaranteed to kill a Ringbone or any Spavin, or money refunded, and will not kill the hair. Manufactured by Dr. Frederick A. Page & Son, 7 and 9 Yorkshire Road, London, E. C. Mailed to any address upon receipt of price, \$1.00. Canadian agents:

J. A. JOHNSTON & CO., Druggists,  
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**A Treatise on the  
Horse,  
FREE**

**KENDALL'S  
SPAVIN CURE**

Couderay, Wis. Oct. 5th. 1909  
"Please send me your book 'A Treatise on The Horse'—I saw by your ad that it was free, but if it cost \$5, I would not be without it, as I think I have saved two valuable horses in the last year by following directions in your book."  
William Napes.  
It's free. Get a copy when you buy Kendall's Spavin Cure at your dealer's. If he should not have it, write us. 40  
Dr. B. J. Kendall Co., Oneburg Falls, N.Y.

**Seldom See**  
a big knee like this, but your horse may have a bunch or bruise on his Ankle, Hock, Stifle, Knee or Throat.

**ABSORBINE**  
will clean them off without laying the horse up. No blister, no hair gone. \$2.00 per bottle, delivered. Book & E free.

Mr. S. Nixon, Kilbridge, Ont., writes, Jan. 21, 1910: "I have used ABSORBINE with success on a curb."  
W. F. Young, P.O. F., 250 Temple St., Springfield, Mass.  
Lymans, Limited, Montreal, Canadian Agents.

**Aberdeen-Angus Cattle**—Stock all ages, good strains, at reasonable prices. Apply to **ANDREW DINSMORE, "Grape Grange" Farm, Clarksburg, Ont.**

**FOREST VIEW** I have lately purchased the **HEREFORDS!** Govlock herd of Herefords, and have for sale sons and daughters of Toronto winners and champions; also Galloways of both sexes. **A. E. Caulfield, Mount Forest, Ont. P. O. and Station.**

**ABERDEEN - ANGUS CATTLE**  
3 choice yearling bulls for sale at reasonable prices. Also females any age. Parties requiring such will get good value. Correspondence invited.  
**GEO. DAVIS & SONS, ALTON, ONT.**

Have on hand at the present time a choice lot of

**Shorthorn  
Bulls**

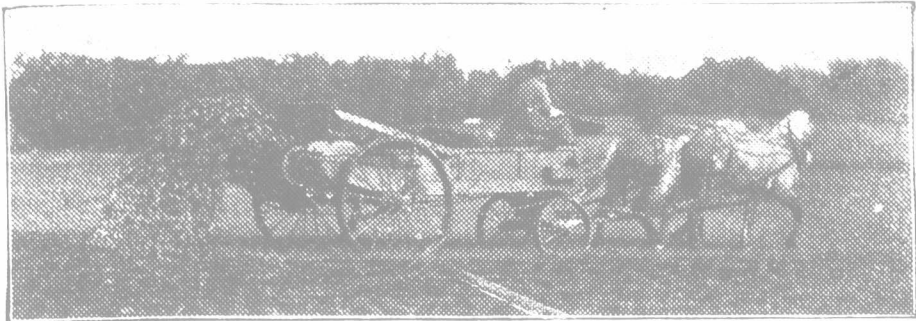
ready for service, mostly from imported stock, of such families as the Rosewoods, Butterflies, Beautys and Duchess. One of the lot is a red imported bull of the choicest breeding. Come and see them during the holidays.

**H. J. Davis, Woodstock, Ont.**  
G. T. R. and C. P. R. Long-distance Bell phone.

**Oakland Shorthorns** With 46 head of horns to select from. We have eleven bulls, from 6 months up, most of them are beautiful roans, thick and mellow and out of good milking dams. Scotch Grey 72692 at head of herd. When in need, inspect our herd, or write.  
**JOHN ELDER & SON, Hensall, Ont.**

**A HIGH-CLASS YOUNG FOR SALE, sired by imp. Ben Lomond; also a heifer calf of good quality. Prices reasonable.** Stewart M. Graham, Port Perry, Ontario.





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The Bureau is a center where the best ways of doing things on the farm, and data relating to its development, are collected and distributed free to every one interested in agriculture. Every available source of information will be used in answering questions on all farm subjects. If the questions are sent to the I H C Service Bureau, they will receive prompt attention.

A MANURE SPREADER is like a chain—as strong as its weakest part. Don't let one or two "exclusive features" influence you—don't be influenced by frills or fancies. Be sure that the spreader you buy is substantially built all over—without a weakness anywhere.

If you want to be sure of such a spreader—see that the I H C trade-mark is on the one you buy; then you will know that the material, the principle, and the construction are right. This trade-mark is backed by a company that can not afford to risk its reputation by offering inferior or inefficient machines.

I H C manure spreaders are of proved value—proved money-makers. Thousands of users testify to I H C superiority. Investigation brings to light the noticeable absence of troublesome gear wheels, the few levers, the perfect working apron, the wide range of feed, the light draft and the other advantages which have made I H C spreaders the choice of all who investigate thoroughly.

You will also note that there is an I H C spreader of a style and size to meet your particular requirements. Corn King spreaders are of the return apron type. Cloverleaf spreaders have endless apron. Each style is made in sizes from 30 to 70 bushels capacity. Lime hoods for spreading lime, etc.—and drilling attachments for distributing manure in rows, are furnished on special order.

Let the I H C local dealer tell you all about I H C spreaders. Let him tell you why it is best for you to invest in an I H C for greatest returns. Get catalogues from him, or, write nearest branch house.

CANADIAN BRANCHES—International Harvester Company of America at Brandon, Calgary, Edmonton, Hamilton, London, Montreal, Ottawa, Regina, Saskatoon, St. John, Winnipeg, Yorkton.

INTERNATIONAL HARVESTER COMPANY OF AMERICA  
Chicago (Incorporated) U.S.A.

## Farmers and Cattlemen, Read This!

When you cannot sell your export cattle at satisfactory prices at home, and wish to ship them to the Old Country markets, write or wire for steamer space, market and shipping information to Donald Munro, Live-stock Forwarding Agent and Commission Salesman, 43 St. Sacramento Street, Montreal. Load your cattle carefully, and bill them to me. I provide the necessary feed, insurance, etc., pay freight and all other expenses from shipping point, and give liberal cash advances on all consignments. Cattle are loaded on steamer under my personal supervision, and placed in charge of capable attendants for the ocean voyage. I represent the most reliable salesmen at all the different British markets. BUSINESS ESTABLISHED 1890. REFERENCES: THE MOLSONS BANK, MONTREAL.

**ORCHARD GROVE HEREFORDS**  
Young bulls and one- and two-year-old heifers, of showing-quality and most fashionable breeding; thick-fleshed, smooth and even.  
L. O. CLIFFORD, Oshawa, Ont.

**Maple Hall Shorthorns**  
Are bred on most fashionable Scotch lines, and are of high-class individuality. For sale are 6 young bulls from 6 to 10 months of age. A low, thick, sappy lot. Also 10 yearlings and 10 two-year-old heifers. Show material in this lot. Telephone connection.  
DAVID BIRRELL & SON, GREENWOOD P. O., ONT., CLAREMONT STATION.

**SALEM STOCK FARM**  
Young bulls fit to head the best herds; are priced reasonably. Can suit you in SCOTCH SHORTHORNS of any age.  
Elora, G. T. R. and C. P. R., 13 miles from Guelph.  
J. A. WATT, SALEM, ONT.

**PLEASANT VALLEY SHORTHORNS**  
For Sale: 1 red, 1 roan, 2-year-old show bulls. Several good bull calves, also some yearling heifers. Some show propositions among them. If interested, write or call and see us before buying.  
GEO. AMOS & SONS, MOFFAT, ONTARIO.  
Farm 11 miles east City of Guelph on C. P. R., 1/2-mile from farm.

**Maple Leaf Shorthorns and Hampshire Hogs**  
Offering for sale Shorthorn bulls and heifers and young Hampshire pigs.  
PORTER BROS., APPLEBY P. O., BURLINGTON STA. 'Phone.

**SPRINGHURST SHORTHORNS**  
Excellent lot of Scotch-bred bulls fit for service (bred for beef and milk), also heifers, for sale.  
H. SMITH, HAY P. O., ONT.  
EVEN ADDRESS: ELLERON A. R.

## QUESTIONS AND ANSWERS. Miscellaneous.

### WINNINGS AT CHICAGO.

I see by your paper some two weeks ago that Graham Bros., Claremont, won several prizes at Chicago Exhibition. Would like to know what horses were the winners, as I am somewhat interested to know if the Canadian colt, Mac Baron, two-year-old, won anything. J. R.

Ans.—No horse was shown under this name at the International this year in the two-year-old class.

### FEEDING SHEEP.

1. How many oats will a Leicester lamb eat when eight months old?
2. How many oats will an aged ewe eat and not do her any harm?
3. How many times would you advise to feed oats in a day?
4. Which is the best for sheep, red clover or alfalfa?
5. How many turnips would you advise to feed to a sheep in a day?
6. Are carrots better for sheep than turnips?
7. Which is the better way to feed either, cut or whole?
8. Are cabbage good for sheep?
9. Will you give me the recipe of coconut balls? H. Y.

Ans.—1. Approximately, one pound per day.

2. Half a pound per day is a good ration for a breeding ewe; she might consume as high as one and a half pounds per day.

3. If you are feeding heavily twice a day is advisable.

4. Both are good; where they are in an equally well-preserved state, alfalfa is more valuable.

5. From two to four pounds.

6. No.

7. Sheep can do their own pulping if they are not old.

8. Splendid in the fall, but are somewhat difficult of storage.

9. Can any of our readers answer this question?

### INQUIRY RE WHEY BUTTER.

1. What is the yield of fat per 1,000 lbs. of whey (ordinary condition)?
2. What should be the cost of separating per 1,000 lbs. whey, and is not this cost partly offset by the partial pasteurizing of the whey? W. W. B. Elgin Co., Ont.

Ans.—1. The average amount of fat in unpasteurized whey returned in patron's can from factories in Western Ontario for season of 1910, was .11 per cent, or 1.1 lbs. per 1,000 lbs. whey; accounted for by much of the fat rising to top of whey in tank, and whey drawn from beneath.

The average amount of fat returned where whey was properly pasteurized, was .2 per cent, or 2 lbs. per 1,000 lbs. of whey, accounted for by pasteurization preventing fat from rising to top of whey.

The yield of fat in whey direct from the cheese vats, averaged about .211 per cent., or 2.11 lbs. per 1,000 lbs. of whey, varied by the condition of the milk and method of manufacture.

2. The cost of elevating and separating whey is given in Dairymen's Association report, 1908, page 171, as 5.9 cents per ton, or 2.95 cents per 1,000 lbs. whey. Wood cost \$2.75 per cord, when soft-coal slack, used at \$1 per ton, cost 44 cents per ton of whey.

In the same report, page 165, is found "The cost of making one pound of whey butter is estimated at 7 cents, but there is no profit for the manufacturer at this price."

We do not see how the cost of separating is partly offset by the partial pasteurization of whey. Were the whey properly pasteurized before or after separating, there would be advantages by controlling excessive acid and from a bacteriological standpoint.

Recent experiments with whey direct from the cheese vat show a difference of from 25 per cent. to 33 per cent. in favor of unskimmed whey for feeding. Pasteurization from the feeding standpoint is advised to keep the fat evenly distributed in the whey and from becoming abnormally sour. There are other distinct advantages from a sanitary and bacteriological standpoint. I. H.

## METALLIC CEILINGS

are everything that plaster, wood and wall paper are not.

Metallic Ceilings are fire-proof, absolutely.

Metallic Ceilings don't crack or crumble—don't get damp or mouldy—don't need repairs.

Metallic Ceilings are far-and-away the most economical building material you can put in a house. You don't believe it? We can prove it. Write us for the facts.

The Metallic Roofing Co.

Limited MANUFACTURERS.

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## Fistula and Poll Evil

Any person, however inexperienced, can readily cure either disease with

**Fleming's Fistula and Poll Evil Cure**  
—even bad old cases that skilled doctors have abandoned. Easy and simple, no cutting—just a little attention every fifth day—and your money refunded if it ever fails. Cures most cases within thirty days, leaving the horse sound and smooth. All particulars given in

Fleming's Vast-Packed Veterinary Adviser. Write us for a free copy. Ninety-six pages, covering more than a hundred veterinary subjects. Durable bound, indexed and illustrated. FLEMING BROS., Chemists Toronto, Ontario 75 Church St.

## Willow Bank Stock Farm SHORTHORNS AND LEICESTERS.

Herd established 1855; flock, 1848. The great Duthie-bred bull, Imp. Joy of Morning—3370—, and the Missie bull, Royal Star—7252—, heads my herd. Choice selections to offer at all times in both bulls and females. JAMES DOUGLAS, CALEDONIA, ONTARIO.

## 10 Scotch Shorthorn Bulls 10 FROM 10 TO 14 MONTHS OLD

The Princess Royal, Secret, Bessie, Village Maid families are represented in lot. First-class herd headers and farmers' bulls for getting market-topping steers. Prices very reasonable.

JOHN MILLER, BROUGHAM, ONT. Claremont Station, C. P. R., three miles.

## SHORTHORN FEMALES

OF ALL AGES FOR SALE.

Prices to suit all kinds of customers. Have one red eleven-months-old bull left; a Clipper; price \$100.

J. T. GIBSON, DENFIELD, ONTARIO.

## HIGH-CLASS SHORTHORNS

I have on hand young bulls and heifers of high-class show type, pure Scotch and Scotch-topped, sired by that sire of champions, Mildred's Royal. If you want a show bull or heifer, write me. GEO. GIER, Grand Valley P. O. and station, also Waldemar station.

**Shorthorns and Yorkshires**—A choice lot of young bulls and heifers at reasonable prices, from such noted families as Miss Ramsden, Crimson Flower, Lady Sarah, Imp. Clementina, Jealousy and Mina. A fine litter of the Improved Yorkshires ready to wean, of prize-winning stock. ISRAEL GROFF, Elmira, Ont.

**SHORTHORNS AND LEICESTERS**—Present offering: Eight choice bred one and two year old heifers, also bull calves. Choice shearing rams and ram and ewe lambs. Show material. Write: W. A. Douglas, Tuscarora, Ont. Caledonia Station.

**Imp. Scotch Shorthorns**—When looking for Shorthorns, be sure to look me up. Young bulls fit for service, and females all ages; bred in the purple, and right good ones. A. C. PETTIT Freeman, Ont.

## INVERNESS SHORTHORNS.

I can supply Shorthorns of all ages, with richest Scotch breeding and high-class individuality. W. H. EASTERBROOK, Freeman, Ont.



## WHAT A TRADE-MARK STANDS FOR

in a Cream Separator is the ability to get MORE cream; a Separator that cannot get "more" had better be without a name altogether; for the name only serves to identify it to dissatisfied users.

This Trade-mark

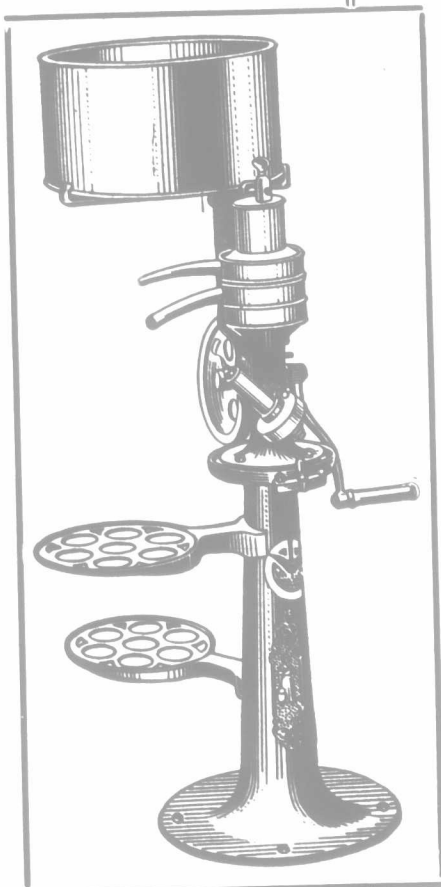


stands or the Separator that gets 999-1000ths of all the cream in every drop of the whole milk—for the only Separator whose bowl is fitted with the wing-cylinder skimming device. This trade-mark is a guarantee of Separator satisfaction.

Write for our little book on THE CAPITAL.

**National Manufacturing Co., Ltd.**  
Head Office: OTTAWA.

Factories: OTTAWA and BROCKVILLE.  
Branch Offices: 77 Jarvis St., Toronto; Regina, Sask.;  
Edmonton Alta.; Moncton, N. B.



## OIL CAKE

**J. & J. Livingston Brand**

**DOMINION LINSEED OIL CO., LIMITED,**  
BADEN, ONTARIO. 31 Mill St., MONTREAL, QUE.

The finest feed known for stock. Once a user, always a user. Sold either fine or coarse ground. Write:

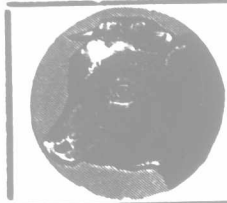


## Scotch Shorthorns

125 head in herd. Headed by the imported bulls, Bandsman, Village Duke and Braemar Champion. For sale: One choice imp. bull, his dam sold for \$1,400 at dispersion of Uppermillherd; 14 young bulls ready for service, some show material among these; 50 young cows and heifers, all of noted Scotch breeding.

Farm 1/4 mile from Burlington Jet. Sta., G. T. R.

**MITCHELL BROS., Burlington, Ont.**  
(Formerly R. Mitchell & Sons and J. F. Mitchell.)



## H. CARGILL & SON

have to offer at the present moment an exceptionally good lot of young bulls, which combine all the requisites necessary for the making of superior stock sires, viz.: Quality, Size, Conformation and Breeding. If interested, come and make your selection early. Catalogue on application.

**John Clancy, Manager, Cargill, Ontario.**

## Scotch Shorthorns

Eight extra good young bulls, from 10 to 15 months old; 20 choice cows and heifers, forward in calf or with calves at foot. Prices reasonable. Inspection invited. Farms close to Burlington Junction, G. T. R.

**W. G. PETTIT & SONS, Freeman, Ont.**

**ELMHURST SHORTHORNS and BERKSHIRES**  
FOR SALE: Scotch Shorthorns of superior type and breeding, heifers and young bulls, Berkshires of both sexes of breeding age and younger, high-class in type and quality.

**H. M. VANDERLIP, Gainsville P.O. and Station.**  
Also Langford Sta., B. & H. Elys. Long-distance phone.

## SUNNY SLOPE SHORTHORNS

I breed Scotch Shorthorns exclusively. I have some choice young females, some in calf and some good young bulls for sale at present at prices you can pay. Long-distance phone.

**A. EDWARD MEYER, BOX 378, GUELPH, ONT.**

## Irvine Side Shorthorns

Extra good young bulls, ready for service, both from an imp. bull, and some of them from an imp. cow. Also 1 good two-year-old registered Clyde-side mare from imp. sire, and out of imp. mare.

**J. WAIT & SON, SALEM, ONTARIO.**

## QUESTIONS AND ANSWERS. Miscellaneous.

### RAW LINSEED OIL.

Could you tell us how linseed raw oil is made; also oil cake? We can get quite a quantity flaxseed here this season.

M. B.

Ans.—1. It is obtained by pressure from the flaxseed, whereby 20 to 25 per cent. by weight of the bulk of the seed is obtained in oil. The seeds are bruised, or crushed, ground, and the oil expressed without heat; or, by later methods, 200 degrees F. heat is used. The oil cake consists of the residue as it comes from the mills, the great pressure used in extracting the oil converting the pulpy mass into slab-like form; this may be ground into meal, broken into pea-size or nut-size, or be left in slab form.

### BREEDING: FILLY AND SOW.

1. Which would you advise, breeding a two-year-old filly next spring and raising a couple of colts before breaking her; or would she be fit to put to work at three years of age? She is of Percheron breeding, and of good size and conformation.

2. Have a sow that lost her pigs about one week before farrowing time. Would it be safe to breed her again, as she has been an extra good breeder. Is three years of age.

3. What is the most profitable breed of chickens for an ordinary farmer to raise?

R. N.

Ans.—1. It is questionable practice to breed a two-year-old filly. Some men do so regularly. The filly would have to be exceedingly well developed and well fed to prevent under development. As a general rule, breaking her and putting her to light work for the next year, thus letting her grow and getting her well gentled, will be found the more satisfactory practice.

2. Sow may have lost her litter through accident or mismanagement. If she is well, unless some good reason to the contrary is known, it would be well to give her another trial, taking due care with her ration, and giving her plenty of exercise.

3. It is not possible to answer this question absolutely. The Plymouth Rocks, Rhode Island Reds, Wyandottes and Orpingtons, are all satisfactory general-utility breeds, which should give good satisfaction.

### INAPPETENCE.

1. Bull two years four months old, will not eat his chop and roots up clean. Am feeding him at present, one pailful of roots, two quarts of chop (barley, oats and peas), corn and wheat chaff mixed. He nearly always leaves half of the roots and chop, but eats a good deal of roughage. Have fed him one tablespoon of copperas twice a day, but he does not improve in appetite. My father says I "knocked him out" feeding him flaxseed jelly when he was a calf. He is quite active when let out. What would you advise to improve his appetite and make him fat?

2. Two mares in foal, just jobbing around at light work, are receiving one gallon of oat chop with two quarts of bran three times a day, oat straw and corn mixed, with a feed of hay at night, and enough roots to keep them loose. How is corn rent for in-foal mares? Should they have all the oat straw and corn they want? One mare's hair does not lie down as it ought. What do you think is the cause? She eats well, and I don't think she has worms.

W. P. S.

Ans.—1. Give a laxative of one and a half pints of raw linseed oil, and follow up with a tablespoonful of the following three times daily, given as a drench in a pint of cold water, viz.: Equal parts of sulphate of iron, gentian, guaiac, nuxvomica, nitrate of potash and bicarbonate of soda. Feed no more at a time than he will clean up in half an hour, three times a day, and increase gradually as his appetite improves.

2. Provided the corn has been well cured and is not mouldy or bad, it sees no objection to it as roughage, together with oat straw, as much as they will eat. Blanketing while in the stable will doubtless improve the condition of the hair.

## Was Terribly Afflicted With Lane Back

Could Not Sweep The Floor.

It is hard to do house work with a weak and aching back.

Backache comes from sick kidneys, and what a lot of trouble sick kidneys cause.

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

Doan's Kidney Pills are a specific for lame, weak or aching backs and for all kidney troubles.

Mrs. Napoleon Lamour Smith's Falls, Ont., writes: "I take pleasure in writing you stating the benefit I have received by using Doan's Kidney Pills. About a year ago I was terribly afflicted with lame back, and was so bad I could not even sweep my own floor. I was advised to try Doan's Kidney Pills, which I did, and with the greatest benefit. I only used three boxes and I am as well as ever. I highly recommend these pills to any sufferer from lame back and kidney trouble."

Doan's Kidney Pills are 50 cents per box or 3 for \$1.25, at all dealers or mailed direct on receipt of price by The T. Milburn Co., Limited, Toronto, Ont.

When ordering direct specify "Doan's."



## "ELECTRO BALM"

CURES ECZEMA.

Also Piles, Burns, Scalds, Chapped Hands and Face.

Gentlemen use it after shaving. This Balm is handled by the best firms, and is highly recommended by those who have used it.

Write for Free Sample

ENCLOSE 2c. STAMP FOR POSTAGE

50c. a Box at all dealers or upon receipt of price from

**THE ELECTRIC BEAN CHEMICAL CO.,**  
Ltd., OTTAWA.



## Glenburn Stock Farm

A few nice Shorthorn calves of both sexes. Shropshire ram lambs, ewes and ewe lambs. Barred Rock cockerels of Hawkins' strain. **JOHN RACEY, Lennoxville, Quebec.**

## Maple Lodge Stock Farm

1854-1910.

A lot of choice young SHORTHORN BULLS, and a splendid lot of LEICESTER rams and ewes for sale.

**A. W. Smith, Maple Lodge, Ont.**

**GEORGE D. FLETCHER,**  
BINKHAM P. O., ONT.

Offers a few choice Shorthorn Cows at bargain prices, broo to stock bull, Benachie (imp.) = 69954 =, also Shorthorn heifer calves. Three Clydesdale fillies 1 and 2 years old; and Yorkshire sows ready to breed. **Erin Shipping Station, C. P. R.**

## Spring Valley SHORTHORNS

We have for sale Newton Ringleader (imp.) = 73783 =. A good bull, with first-class breeding. Also a Canadian-bred 15-months-old bull of the choicest quality. Phone connection. **Kyle Bros., Ayr, Ont.**

**Woodholme Shorthorns** are of the richest modern type and quality. Scotch breeding, two-year-old heifers, several young bulls, thick-boned, slow-down and mellow.

**G. M. FORSYTH, Clarendon, Ont.**  
Phone connection.

SECURE ONE OF OUR PREMIUMS.



## Boog Spavin

Cure the lameness and remove the bunch without scarring the horse—have the part looking just as it did before the blemish came.

**Fleming's Spavin Cure (Liquid)** is a special remedy for soft and semi-solid blemishes—Boog Spavin, Thoroughpin, Splint, Curb, Capped Hock, etc. It is neither a salve nor a simple blister, but a remedy unlike any other—doesn't irritate and can't be misapplied. Easy to use, only a little required, and your money back if it ever fails.

**Fleming's Vest-Pocket Veterinary Adviser** describes and illustrates all kinds of blemishes and gives you the information you ought to have before ordering or buying any kind of a remedy. Mailed free if you write.

**FLEMING BROS., Chemists**  
Toronto, Ontario  
75 Church St.

### BARTLETT'S "FARMER BRAND" Cotton-seed Meal

**Produces Milk**

BARTLETT'S "FARMER BRAND" Fancy Choice Cotton-seed Meal has six times the feeding value of corn, and costs less. Contains 41 to 48 per cent. protein.

Make your own balanced rations and double your milk profits.

A little of this meal added to the home-grown feed will double the quantity and improve the quality of milk.

Full satisfaction or money back. Ask for our booklet, "Successful Feeding." Mailed free.

PRICE: (\$2 per ton f.o.b. Windsor, \$3 per ton f.o.b. Woodstock, \$4 per ton f.o.b. Toronto.

Mail check for trial order to:

**THE BARTLETT CO'Y**  
Detroit, Michigan.

### Worth Looking Into

When it becomes necessary to buy feed, it will be well to keep in mind the word

#### "CRESCENT."

"Crescent" is a mixed chop, with the Government analysis on every bag. One of the largest dairy herds in Ontario recently ordered a carload, and the order was placed after thoroughly testing its value as a dairy feed. Ask your dealer about it. If he does not know, write us. We can give you a close price on a carload.

**THE CHISHOLM MILLING CO., LIMITED**  
"A." Jarvis Street, Toronto, Ont.

### BRAMPTON Jerseys

**CANADA'S GREATEST JERSEY HERD**

We are offering for sale one 2-year-old bull and four yearlings, fit for service; also six bull calves; females of all ages. Come and see them or write.

**B. H. BULL & SON, BRAMPTON, ONT.**

**High Grove Jerseys** No Better Blood in Canada. Present offering: Two choice young bulls about fourteen months old. Will be sold right, before going into winter. ART-UR H. TUFIS, P. O. BOX 111, TWEED, ONTARIO.

**HOLSTEINS AND YORKSHIRES**

**R. HONEY, Brickley, Ont.**  
Northumberland Co.

Offers a choice lot of boars and sows ready to mate; also orders taken for the coming crop of calves from Prince Posh Calamity Bleske and R.O.P. cows.

Choicely-bred calves for April and May delivery sired by imported Ykema Sir Posch and Pontiac Sarcastic, a grandson of Sarcastic Lad. Registered. Delivered. Express paid. Safe delivery guaranteed.

**B. D. HOBBS & SONS, PUTNAM, ONT.**

The most profitable dairy breed. Illustrated descriptive booklets free.

**Holstein-Friesian Ass'n of America**, F. L. HOLTGTON, Secy, Box 127, Brattleboro, Vt.

**A Rare Chance to secure a Great Sire.** To avoid inbreeding I must sell my son of Tidy Albinok; record, 27.28 lbs. butter. He is 10 years old. Easy to handle, sure and as good a worker as a youngling. Or I will exchange for one of equal merit and breeding.

**H. Rollett, Cassel, Ontario.**

**Holsteins and Tamworths for Sale.** Seven bulls, boars fit for service; six cows, either sexes, from 6 weeks up. Sixty head to select from. Phone connection, via Colborne.

**BERTRAM HOSKIN, The Gully P.O.**

I have several of noted France bred, also daughters of Sir Admiral Oms.

**HOLSTEINS!**

Present offering: Bull calves and heifers.

**BELL, BRITANNIA BAY, ONTARIO.**

### GOSSIP.

#### SOME SHEEP HEARING.

Our Australian correspondent in a letter recently received, gives some marvellous records of rapid sheep-shearing by hand in that country. The feat of Dan Cooper, of shearing 316 sheep in a Queensland shed in a little over eight hours, has raised the question who is the world's swiftest shearer. Jack Horn sheared 321 in eight hours with hand shears as far back as 1892. As hand shears are not now used, it is likely this record will never be beaten. Many people believe that Harry Livingstone is the greatest shearer, as he put through his hands this year in four succeeding days, 233, 225, 237 and 321. Cooper's feat, when he broke the record, was actually 316 sheep in 520 minutes. The sheep were full-wooled ewes.

#### A HANDSOME CHRISTMAS BOX.

The great advantage of the purchase of Canadian Government Annuities for their children should appeal to all parents, for the annual payments are so small that provision for their future may be made with little, if any, present sacrifice. For example, an Annuity of \$100, payable at 60, may be secured for a boy who was 5 last birthday, for an annual payment of only \$4.75, or less than 10 cents a week, or for a total sum paid in of \$261.25. In the event of the death of the child before he was 60, all the money that had been paid in, with 3 per cent. compound interest, would be refunded to his heirs. When the boy arrived at an age when he was earning for himself, he could carry his own contract to completion at a rate far below what he could have obtained at his then age.

It is the custom of many parents to spend on their children at Christmas time amounts which at other times of the year they feel they could not afford, and too frequently are the purchases made of no lasting or permanent benefit. Would it not be a better plan to start each child on the road to the purchase of a Canadian Government Annuity, and continue the "Box" every Christmas until he was able to carry it for himself? The child, if he lived, would remember with gratitude Santa Claus' visits.

Information as to how the purchase may be made, and of the cost at any age, will be supplied you at the Post Office, or by the Superintendent of Annuities, Ottawa.

#### HOLSTEIN-FRIESIANS ACCEPTED IN THE RECORD OF MERIT IN NOVEMBER, 1910.

Arkano Albino DeKol (6180), at 5 years 5 months 25 days of age; 16.65 lbs. fat, equivalent to 20.81 lbs. butter; 490.2 lbs. milk. Owned by C. E. Smith, Scotland, Ont.

Juliet Acme De Kol (6149), at 5 years 8 months 29 days of age; 16.10 lbs. fat, equivalent to 20.12 lbs. butter; 476.5 lbs. milk. Owned by C. E. Smith.

Acme Albino De Kol (9360), at 3 years 3 months 18 days of age; 11.79 lbs. fat, equivalent to 14.73 lbs. butter; 359.7 lbs. milk. Owned by C. E. Smith.

National Queen De Kol (10131), at 2 years 2 months 25 days of age; 13.73 lbs. fat, equivalent to 17.16 lbs. butter; 388.2 lbs. milk. Owned by E. Landlaw & Sons, Aylmer, Ont.

Duchess Wayne Calamity (10503), at 2 years 7 months 26 days of age; 11.81 lbs. fat, equivalent to 11.80 lbs. butter; 321.7 lbs. milk. Owned by Walburn Rivers, Falden's, Ont.

Hillview Norine Colantha (10626), at 2 years 7 months 17 days of age; 11.01 lbs. fat, equivalent to 13.76 lbs. butter; 329.4 lbs. milk. Owned by Walter S. Schell, Woodstock, Ont.

Lady Wayne Posch De Kol (10504), at 2 years 7 months 28 days of age; 10.96 lbs. fat, equivalent to 13.70 lbs. butter; 322.4 lbs. milk. Owned by Walburn Rivers.

Maggie Clark (9500), at 2 years 11 months 12 days of age; 10.25 lbs. fat, equivalent to 12.81 lbs. butter; 303.7 lbs. milk. Owned by C. E. Smith.

Centre View Butter Gem (10554), at 2 years 5 months 21 days of age; 8.37 lbs. fat, equivalent to 10.47 lbs. butter; 268.2 lbs. milk. Owned by P. D. Ede, Oxford Centre, Ont.

G. W. Clemons, Secretary.

### Keeps out large Animals—Keeps in the Chickens

We've put strength and stiffness into the PEERLESS JUNIOR Poultry Fence so it can stand the attacks of restless animals from the outside. We have made it close enough so small fowl cannot get through. It is made of much heavier wire than the ordinary poultry fence, well galvanized, therefore much more durable.

#### Peerless Junior the fence that saves expense

That heavy, No. 6, hard steel wire at top and bottom holds the fence taut and true without the necessity of fence boards and saving more than half the usual number of posts. That means considerable saving to you. Write for our printed matter about PEERLESS FENCES. We make fences and gates for every purpose.

**BANWELL HOXE WIRE FENCE CO., Limited**  
Hamilton, Ont.  
Winnipeg, Man.  
Dept. B

## RAW FURS

ALL KINDS WANTED.

In any quantity. Ship by freight, express or mail. We pay charges, and remit full market value same day. Send trial shipment, or write for information, prices, tags, etc.

**C. H. ROGERS, WALKERTON, ONT.**  
DIRECT EXPORTER AND MANUFACTURER.

### Centre and Hill View Holsteins

We have added to head our herd a young bull from King Segis, world-record sire, and a 26-lb. 4-year-old dam. Have 2 bulls born in January from Honneur Statesman. Their grand-lams have over 21 lbs. butter in 7 days. Also younger ones from good A. R. O. dams. These will be sold right, considering their backing.

**P. D. Ede, Oxford Centre, Woodstock Stn.**  
LONG-DISTANCE TELEPHONE.

### Holstein - Friesians

**FAIRVIEW FARM** offers young bulls, sired by Pontiac Korndyke and Rag Apple Korndyke, without question the two greatest Korndyke bulls in the world, and out of cows with large A. R. O. records and testing 4% fat. Come and see them or write.

**E. H. DOLLAR, Hevelton, N. Y.**  
Near Prescott.

### LAKEVIEW HOLSTEINS

Bull calf born April 2nd, 1910; mostly white; sire Count Hengerveld Fayne De Kol, who is a brother of Grace Fayne 2nd s Homestead—35.55 lbs. butter in 7 days, and of De Kol "reabelle 10,017 lbs. milk in 100 days. The dam of this calf is sired by De Kol Hengerveld Bruce, who has 21 A. R. O. daughters, one of which has a 30-lb. record, and 10 of which have records over 20 lbs. Several others for sale. Write for particulars.

**E. F. OSLER, BRONTE, ONTARIO**

### Silver Creek Holsteins

Official records range from 13 lbs. for 2-year-olds to 22 lbs. for mature cows. Stock bull, King Fayne Segis Clothilde, his 7 nearest dams' records average 27 lbs. For sale are young stock of both sexes, sired by bull with high official backing and out of Record cows.

**A. H. TEEPLE, Currie's P.O., Ont., Woodstock, Sta.** 'Phone connection.

### Sweepstakes Again!

Calamity Starlight Butter Girl made in 3 days over 12 lbs. butter—5.5% fat. Average per cent. fat of our 8 head in test, 4.1 fat. Bull calves from same cows for sale. Also females.

**M. L. HALEY, M. H. HALEY, Springford, Ont., Oxford Co.**

### Maple Hill Holstein-Friesians

Females all ages. Write for what you want, or come and see them.

**G. W. Clemons, St. George, Ont.**  
Bell Telephone.

### HOLSTEINS AND YORKSHIRES

We own the champion two-year-old of the world for yearly production. We own the champion Canadian-bred three-year-old and champion cow in the Record of Merit. We own the sire and dam of champion of the world and the champion three-year-old. We are breeding 30 heifers to this great bull, which are for sale. Also bull calves from high-record cows, and one two-year-old bull, dam's record over 27 pounds butter in 7 days. Trains met by appointment.

**D. C. FLATT & SON, Millgrove, Ont.**  
Farm 'phone 2471, Hamilton.  
Hamilton Station.

### Holstein Bulls

From high-class, officially-tested cows. Ready for service. Also bull calves.

**R. F. HICKS, Newton Brook, Ont., York Co. Toronto Shipping Point.**

### The Maples Holstein Herd

has still on hand individuals and fit for service. All from Record-of-Merit dams. Seventeen females in the herd in calf to King Posch DeKol, bred to freshen between September and February. Calves of either sex, from any of these, for sale at reasonable prices.

**Walburn Rivers, Falden's, Ont.**

### Ayrshire Cattle

of choicest producing strains. Record-of-Performance work a specialty. Good udders, good teats. 20 large Toulouse geese, \$5.00 per pair.

**WM THORN, Trout Run Stock Farm, Lynedoch, Ontario.**  
Long-distance phone.

### Springhill Ayrshires

Headed by two bulls whose dams have the highest official records in Scotland. Order a bull calf out of our best cows.

**Robt. Hunter & Sons, Maxville, Ont.**

### Ayrshires and Yorkshires!

We still have a few choice individuals of almost any age on hand in Ayrshires, and are always ready to price any. Other breeders in this section. Bull calves from Record of Performance cows. A few young Yorkshires on hand.

Long-distance phone.

**ALEX. HUME & CO., MENIE, ONT.**

### Ayrshires

Bull calves, from 4 months to 9 months, from imported sire and Record of Performance dams. Records 50 to 63 pounds per day.

**N. Dymont, R. R. No. 2, Hamilton, Ont.**

### HILLCREST AYRSHIRES.

Bred for production and large teats. Record of Performance work a specialty. Fifty head to select from. Prices right.

**FRANK HARRIS, Mount Elgin, Ont.**

### Stonehouse Ayrshires

30 head to select from. All imported or out of imported sire and dam. For sale: females of all ages. Am now booking orders for bull calves.

**Hector Gordon, Howick, Quebec**

### SPRINGBANK AYRSHIRES

Canada's leading herd of Record-of-Performance Ayrshires. Big records, big cattle, big udders and big teats. Present offering: Four spring heifer calves. All good ones, with good breeding. Are now booking orders for calves of either sex.

**A. S. TURNER & SON, RYCKMAN'S CORNERS, ONTARIO.**  
Three miles south of Hamilton.



## BOILS AND PIMPLES

Are caused altogether by bad blood, and unless you cleanse the system of the bad blood the boils or pimples will not disappear.

Get pure blood and keep it pure by removing every trace of impure morbid matter from the system by using the greatest known blood medicine,

### BURDOCK BLOOD BITTERS.

#### Boils Cured.

Mr. A. J. Saulnier, Norwood, N.S., writes:—"Two years ago I was troubled with boils on my neck and back, and could not get rid of them. A friend recommended me to try Burdock Blood Bitters, and after using two bottles I was pleased to note the boils were entirely gone, and I have not been troubled with any since."

#### Pimples Cured.

Miss Eva A. Skinner, Granby, Que., writes:—"I am pleased to recommend Burdock Blood Bitters as it has done me much good. My face was covered with pimples, and being advised by a friend to try Burdock Blood Bitters and have them removed I did so and I now have not a spot on my face."

Burdock Blood Bitters is manufactured only by The T. Milburn Co., Limited, Toronto, Ont.

## DIDN'T I TELL YOU Cooper's Fluid

Will give your show beasts a coat like silk, and a healthy, pliant skin.

### BESIDES

It is the most successful remedy for

### MANGE and RINGWORM

and destroys LICE in one application.

**\$2.00** Per Gall. Makes 100 gallons of cattle wash.

SOLE MANUFACTURERS:

WM. COOPER & NEPHEWS, Toronto

## Shropshires

The right quality to breed from. Choice animals of both sexes for sale. Also White Wyandotte cockerels. W. D. Monkman, Bond Head, Ontario.

## ABERDEEN - ANGUS

Will sell both sexes; fair prices. Come and see them before buying. Drumbo station.

WALTER HALL, Washington, Ont.

Minister—And how did Noah spend his time in the ark?

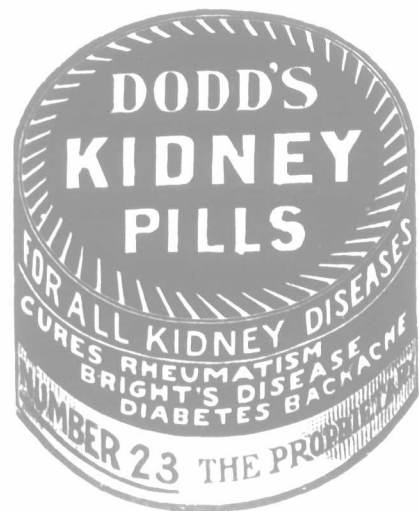
Small Boy—Fishing.

Minister—A very reasonable suggestion, my laddie.

Small Boy (unwillingly)—But he would not catch muckle.

Minister (surprised)—What makes you think that?

Small Boy (knowingly)—Because, yer see, he had only two wives.



## BOOK REVIEW.

### FEEDS AND FEEDING.

The tenth edition of this very valuable book, revised and entirely rewritten, by W. A. Henry, formerly Dean of the College of Agriculture, and Director of the Agricultural Experiment Station, University of Wisconsin, has just come to our office.

The revised Feeds and Feeding is a large octavo volume of vi-613 pages, printed on clear white paper, and substantially bound in art vellum.

Feeds and Feeding is a cyclopaedia or compendium of animal nutrition and the rational feeding of farm animals set forth in simple, helpful language. Its basis is the extensive investigations with animals in the physiological laboratories of Europe and America, and the numerous feeding trials with farm animals conducted by experiment stations, especially those of America, during the last thirty years. To these have been added the experiences of successful stockmen, gathered from the widest sources. The substance of all the important work of our experiment stations in the feeding of farm animals, as set forth in hundreds of bulletins, is arranged, condensed, and made available to the reader. The subject matter is arranged in paragraphs or articles which are numbered. By the use of cross references to the numbered articles, given everywhere throughout the text, repetitions are avoided, and the reader can quickly exhaust any topic on which he is seeking information.

Part I, 128 pages, shows how plants grow and elaborate food for animals—the composition of the animal body—digestion, and the energy of food—the function of food nutrients in the body—the production of flesh, fat, and energy—the various feeding standards—and calculating rations for farm animals.

Part II, 122 pages, sets forth the feeding properties of substantially all the feeding stuffs used in America—the grains, mill and factory by-products, the grasses, hays, etc., silage and silage—the preparation of feeds for animals, and the material value of feeding stuffs.

Part III, 302 pages, presents in carefully arranged, condensed form, illustrated by numerous tables, substantially all the typical and more important findings of the European and American experiment stations bearing on the rational feeding of the horse, cow, calf, steer, and pig. This part is intensely practical. A great number of tables are given showing the results obtained by the experiment stations with farm animals fed the various feeding stuffs. These tables are simplified and arranged according to an entirely new plan by which the reader learns at a glance how much food is consumed by one animal in one day while on the experiment, and what that one day's food produces in work, flesh, milk, etc.

The Appendix Tables, covering 29 pages of figures, show the composition of substantially all American feeding stuffs, and their digestible nutrients and fertilizing constituents—the Wolff-Lehmann feeding standards—and, finally, the mineral contents of typical feeding stuffs.

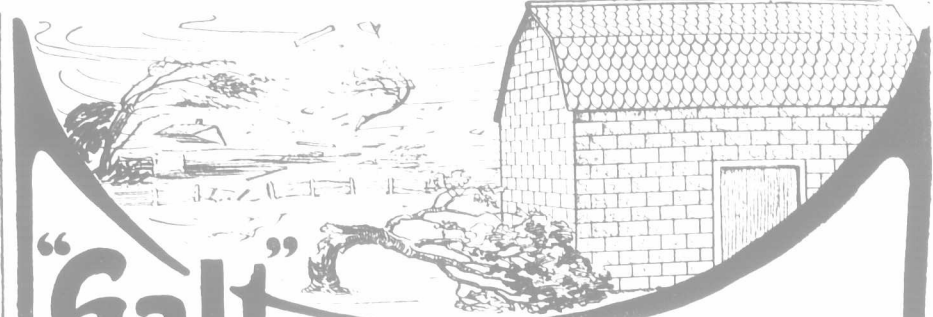
The book closes with a double-column 29-page index, containing over 3,000 references, by which the reader can quickly and surely find any and every fact stated.

Feeds and Feeding is used as a text-book in nearly all the agricultural and veterinary colleges of America, and by many secondary schools. It is found in many public and school libraries, and thousands of copies have gone into the libraries of farmers and stockmen.

The price of Feeds and Feeding is \$2.25 per copy, delivered. It may be obtained from the author and publisher, or from any of the leading agricultural papers of America, as well as from bookstores and book dealers generally. "The Farmer's Advocate" will be glad to furnish any of its readers with a copy upon receipt of the regular selling price.

### GOSSIP.

W. E. Bell, of Britannia Bay, Ont., C. E. Bell, near Ottawa, advertises in this paper a Lakeview dairy farm herd of Holsteins, which comprises members of the noted Evans family, which has made splendid records of milk and butter production, and from which bull calves and heifers are sold for sale.



## "Galt" Shingles

The new "Galt" Steel Shingles and Sidings are the surest protection from the fiercest storms that rage, yes, even lightning storms.

They are made from the Best British Galvanized Steel Plates, which shed lightning like water from a duck's back. No wind, rain or snow can penetrate the new Galt-proof, closed-end side-lock or the continuous interlocking and overlapping bottom joint. They are twice as securely nailed as any other—that's very important.

They are easily and quickly laid, and the Bold Gothic Tile pattern makes a very handsome roof.

They cost no more than ordinary metal shingles—why not have the "Galt Kind"? Our free Catalog "R-3" explains all about them.

THIS IS THE SHEET METAL AGE.

THE GALT ART METAL CO., LIMITED, GALT, ONT.

Sales and Distributing Agents: Dunn Bros., Winnipeg and Regina.

I have big, thick and woolly rams and ewes, mostly lambs, but some yearlings, both **Shropshires and Cotswolds**. Have also the best lot of young **SHORTHORN BULLS** have ever bred, sired by one of Whitehall Sultan's greatest sons. They will be sold worth the money. You should write soon. **ROBERT MILLER, STOUFFVILLE, ONT.**

## FARNHAM OXFORD DOWNS

The Champion Flock. First Importation, 1881. Our present offering is a grand lot of ram lambs for flock headers, from our imported champion ram, and a number of them from imported ewes. Also a first-class imported yearling and a two-shear ram. Fifty superior yearling ewes, and a number of ewe lambs. We are also offering a few large Hampshire ram lambs from imp. sire and dam. Long-distance phone on the farm: Central, Guelph.

HENRY ARKELL & SON, ARKELL, ONTARIO.

## LABELS

Metal Ear Labels for Cattle, Sheep and Hogs.

The old standby for all who have stock liable to stray, or to dispute as to identification or ownership; for herd or flock records, or for general convenience. Send for free circular and sample. It may save you much trouble. Write to-day.

F. G. JAMES, BOWMANVILLE, ONTARIO.

## MAPLE VILLA OXFORD DOWNS AND YORKSHIRES

Are ideal in type and quality. Present offering is a grand lot of ram lambs for flock headers, also a number of shearing ewes and ewe lambs, sired by imp. Hamptonian 22nd. Yorkshires of both sexes and all ages. Right good ones. Satisfaction assured.

Bradford or Beeton Station. J. A. CERSWELL, Bond Head P.O., Ont.

## SOUTHDOWNS

Alloway Lodge Stock Farm

First-prize Canadian-bred flock at Toronto, 1909 and 1910. Your choice of the best lot of rams I ever owned. The prices are right.

Long-distance phone ROBT. McEWEN, Railway station, London, BYRON, ONTARIO.

## Highest Quality LEICESTERS

We are offering 8 shearing rams, 25 ram lambs, 10 shearing ewes and 15 ewe lambs. Big in size, very heavy covered and choice quality. Flock headers and show stock a specialty. C. & E. Wood, Freeman, Ont.

## Springbank Oxfords and Yorkshires

A few choice ram and ewe lambs and shearing ewes for sale. Also Yorkshires sows, 6 to 9 months old. Prices right for quick sale. Wm. Barnett & Sons, Living Springs P.O., Ont. Fergus, G. T. R. and C. P. R.

## STOP! LOOK!! READ!!! FAIRVIEW SHROPSHIRE!!!!

Home again, and are feeling well. Ready to start making good for another year. Conditions seem right for constant progress. We are determined to lead, follow who may.

J. & D. J. CAMPBELL, Fairview Farm, Woodville, Ontario.

## NEWCASTLE Tamworths and Shorthorns

For sale: Young sows, due Sept. and Oct., by imp. boar. Dams by Colwell's Choice, Canada's champion boar, 1901, 2, 3 and 5. Also choice pigs, both sexes. Two yearling Shorthorn bulls—Syme and Lavender families; 6 choice heifers and heifer calves. Prices right. Bell phone. A. A. Colwell, Box 9, Newcastle, Ont.

## Hillcrest Tamworths

Are second to none in America for type and quality. For sale are both sexes and all ages, from sows bred and boars fit for service down to youngsters. Herbert German, St George, Ont.

## SUNNYSIDE CHESTER WHITE HOGS.

I am now offering some very choice young things of both sexes, of breeding age. A few Shropshire sheep of both sexes. A number of Bronze turkeys and toms, and Red Cap cockerels and pullets. W. E. WRIGHT, Glanworth P.O., Ont.

PLEASE MENTION THIS PAPER.

## Maple Grove Yorkshires

NEVER LOOKED BETTER.

We have the choicest lot of pigs we ever had to offer: 25 March and April boars, long, straight and smooth, with good strong bone. 50 March and April sows, very choice, of richest breeding. A few nice young sows in farrow. Will have about 30 September litters.

We have doubled our hog-producing facilities, so great has been the demand for our stock. A fair deal and satisfaction to everyone.

H. S. McDIARMID, Fingal, Ont. Shedden Station. Long-distance phone at farm.

## Elmfield Yorkshires

Am now offering a large number of H. Albert 2nd. Imp. in dam, and out of imp. and imp.-in-dam sows. True to type and of choice quality. G. B. Muma, Agr. Ont. Phone connection.

## Monkland Yorkshires

With very nearly 100 sows in breeding, of modern type and high-class quality, our herd will stand comparison with any in Canada. We are always in a position to fill large or small orders with despatch. Long-distance phone. JAMES WILSON & SONS, FERGUS, ONT.

## DUROC - JERSEY SWINE

40 choice young sows, bred and ready to breed. Young boars fit for service. Also a few Jersey bull calves. Bell phone in houses.

Mac Campbell & Sons, Northwood, Ont.

## MORRISTON TAMWORTHS

25 young sows, breeding age. 20 young boars fit for service, bred from best blood in England. Satisfaction guaranteed. Bargains now to make room for stock coming in. Charles Currie, Morriston, Ont. Shaw Sta., C. P. R.; Guelph Sta., G. T. R.

## Willowdale Berkshires

FOR SALE. Some choice young sows, bred and ready to breed. Young boars ready for service, nice things, 2 to 3 months. Long-distance phone. J. J. Wilson, Importer and Breeder, Milton P.O., G. T. R. & C. P. R.



BOOK REVIEW.

SOIL CHEMISTRY IN ROMANCE. The Story of the Soil, by Cyril G. Hopkins, of the University of Illinois, is a very creditable attempt on the part of the author to illustrate the practical application of science in agriculture, and at the same time to introduce his well-known arguments in favor of the use of raw ground rock phosphate, and of the adoption of a new nomenclature in stating chemical analyses of soils and fertilizers. (Prof. Hopkins has endeavored to bring about the universal adoption of the use of the names of the elements: nitrogen, phosphorus, potassium, calcium, etc., instead of ammonia, phosphoric acid, potash and lime, as generally employed at present.)

Evidently with the intention of making the reading matter more palatable, a love story is interwoven with, or rather interpollated between the more matter-of-fact pages. From the beginning of the love episode, the reader is never in doubt as to its final outcome, probably owing to the fact (according to the author) that the whole contents of the book are founded on actual experience in real life, or to the author's desire to hold the reader's attention to the primary object of the book.

Percy Johnstone, the hero of the tale, has been reared on a forty-acre farm in the Illinois corn belt, where, owing to gradually-decreasing yields on the worn-out soil, he and his widowed mother have had to struggle hard for a bare living. Greatly to his mother's surprise and disappointment, Percy announces his intention of taking a course at an agricultural college, and finally wins his mother's approval and carries out his purpose. Being an apt student, he acquires a fund of useful knowledge under efficient teachers, and on leaving college immediately sets himself to the practical application of what he has learned. With the object of purchasing a worn-out farm, which, aided by his newly-acquired knowledge, he might restore to its original fertility, Percy Johnstone visits the South-eastern States, and, armed with an auger for taking soil samples, and a supply of litmus paper to test for acidity, he makes a survey of several farms. His discussions with the farmers regarding their agricultural conditions and his suggestions as to the probable causes of their soil's unproductiveness, and likely remedies, furnish the educative feature of the book. The importance of growing clover as a nitrogen-gatherer and humus supply is emphasized, as well as the necessity of fertilizing and liming, where necessary, to ensure a successful growth of clover. Prof. Hopkins does not forget to make a strong plea for the more-extensive use of raw ground rock phosphate, and deprecates the indiscriminate exportation of this material, which he claims is all needed at home.

While a few of Prof. Hopkins' theories are subjects of dispute, much very useful information of a practical nature is given in The Story of the Soil. B. L. E.

TRADE TOPIC.

A POULTRY SHOW AT MONTREAL.—As a culmination to their past season's efforts to produce more and better poultry, Gunn, Langlois & Co. have, during the week preceding Christmas, held a "Fat-stock Poultry Show" in their warehouses in Montreal. Practically all the fatted stock shown at the Ontario Winter Fair, Guelph, and the Maritime Winter Fair, of Amherst, were exhibited, while an equally large exhibit was made in competition for the \$100-in-gold award made by this firm, as per their advertisement in "The Farmer's Advocate" and other journals. Keen interest was manifested in the display, which was left on exhibition four days longer than originally intended. The following is a list of the prize-winners: Turkeys—1, Mrs. David Stewart, Renfrew, Ont.; 2, A. E. Armstrong, Bristol, Que.; 3, Miss Annie McCaskill, Barb, Ont.; 4, Miss Mary Kate McCaskill, Barb, Ont. Chickens—1, A. A. Armstrong, Fergus, Ont.; 2, Geo. Dumont, Rodgersville, N. B.; 3, D. McDonald, Glenfinnan, Que.; 4, Taylor Bros., Dewittville, Ont. Geese—1, A. A. Armstrong, Fergus, Ont.; 2, Felix Pelletier, Ste. Ann de la Pocatiere, Que.; 3, Jos. Brownlee, Murrills, Que. Ducks—1, Taylor Bros., Dewittville, Que.; 2, D. McDonald, Glenfinnan, P. E. I.

QUESTIONS AND ANSWERS.

1st.—Questions asked by bona-fide subscribers to "The Farmer's Advocate" are answered in this department free. 2nd.—Questions should be clearly stated and plainly written, on one side of the paper only, and must be accompanied by the full name and address of the writer. 3rd.—In Veterinary questions the symptoms especially must be fully and clearly stated, otherwise satisfactory replies cannot be given. 4th.—When a reply by mail is required to urgent veterinary or legal enquiries, \$1.00 must be enclosed.

Veterinary.

SCRATCHES.

Mare that is driven 2 1/2 miles twice daily has had scratches in fore pasterns for two months. They heal, and then break out again. She is fed a pint of oats and a quart of bran three times daily, and hay night and morning.

E. D. O'C.

Ans.—Give her a purgative of 8 drams aloes and 2 drams ginger. Give four days rest. Apply hot linseed-meal poultices to the pasterns for two days and two nights, changing the poultices about every eight hours. Then dress the parts three times daily with oxide-of-zinc ointment, to which has been added 20 drops carbolic acid to each ounce. Do not wash. If she gets the parts wet or muddy, rub well until dry, or allow the mud to dry, and then brush off if you have not time to rub.

COW FAILS TO CONCEIVE.

A six-year-old cow shows oestrus regularly, and has been bred frequently for two years, but has not conceived. Upon examination, I found the opening through the neck of the womb closed. Considerable force was necessary to introduce part of one finger. Would an operation be advisable?

J. R.

Ans.—If the finger was forced completely through the neck into the womb, it would be sufficient opening, but it is probable you got only part-way through. It is necessary to dilate the opening with either the finger, a perfectly smooth, round stick, or other instrument about 1 1/2 inches in diameter, or with a dilator made especially for the purpose. The latter instrument is, of course, the proper one. Breed in about an hour after operating, and if sterility be due to closure of the os, she should conceive.

UNTHRIFTY MARE—SCAR.

1. Four-year-old mare has very poor appetite and is very thin. Her teeth do not seem to be at fault. Her coat is sleek, and she has plenty of life, but is very gaunt.

2. When a sucker she got her pastern cut, and as a result there is a thick band of horn-like substance around the limb at the seat of injury.

W. S. McI.

Ans.—1. It is probable she is congenitally a poor feeder. Make sure that her teeth do not need professional attention. Take equal parts sulphate of iron, gentian, ginger and nuxvomica; mix, and give her a tablespoonful three times daily. You will probably have to mix with a little water and give as a drench, but she may eat it in damp food.

2. This horny substance can be carefully dissected out by a veterinarian, and the wound may heal without its regrowth. Applications will not remove it.

PARTIAL DISLOCATION OF PATELLA.

Colt rising two years has had a soft, puffy swelling below her stifle since last winter. She is not lame, but hitches a little when trotting.

R. N.

Ans.—This is due to the stifle bone or patella slipping partially out of joint, and back to place again. She will never be all right, but will probably make a useful animal. Keep her as quiet as possible in a box stall, and blister the front and inside of the joint. Get a blister made of two drams each of biniodide of mercury and cantharides, mixed with two ounces vasoline. Clip the hair off the parts. Tie so that she cannot bite them. Rub well with the blister once daily for two days; on the third day apply sweet oil. Turn loose in stall now, and all every day until the hair grows again. Blister as above once every month all winter.

PREMATURE LACTATION—THRUSH.

1. Pregnant mare eats and looks well. She is fed on clover hay, ground oats, and carrots. She was bred in May last. Yesterday I noticed her mammary and floor of abdomen swollen, as though she were near foaling. There was wax on her teats, and milk followed. Milk is still escaping from her teats.

2. She has thrush in one foot.

S. S.

Ans.—1. In cases where the fetus dies in the womb, the mammary generally becomes active, but it is not uncommon for milk to escape without such an accident. We cannot tell why this should be, and we do not like it, as in such cases the foal is usually weak when born. All that you can do is give her a little gentle exercise daily, take good care of her, and feed on dry food, as clover hay, ground oats and dry bran.

2. Clean out the cleft of the frog, and put a few drops of formalin into it every second day until cured.

V.

Miscellaneous.

RATION FOR COLT.

Kindly give me a suitable ration to feed a medium heavy spring colt. Have lots of oats, barley and carrots, and good hay. Does it affect a colt's legs in any way if fed too many oats?

A READER.

Ans.—From three to five pounds per day of a mixture made up of four parts oats and one part bran will be found a satisfactory grain ration. Feed a couple of carrots daily, and a liberal portion of clean mixed hay twice a day. Overfeeding with lack of exercise is likely to show its effect in thickened limbs. Give the colt plenty of exercise every day.

VALUE OF ENSILAGE IN SILO.

1. We want to get at the value of 31 feet of silage, in silo 14 feet diameter.

J. L. E.

Ans.—1. The weight of silage per cubic yard varies according to depth and other factors. In silos of moderate size, 50 cubic feet of settled silage will weigh a ton. At this rate, you would have 95 tons. But as 31 feet of settled silage would probably be heavier than this, you likely have 110 to 115 or 120 tons of silage.

2. The value varies according to the quality of the corn when put in, care of filling, and other factors. Some value silage at \$2 a ton, others at \$4, or even higher; it is scarcely possible for us to set a price in this case.

FIRE CLAY.

Kindly insert the ingredients necessary to make first-class fire clay, and in what class the following analysis would be placed:

Table with 2 columns: Ingredient and Percentage. Silica 57.20, Alumina 20.19, Ferric oxide 8.17, Lime 3.04, Magnesia .10, Loss and Ignition 7.90.

G. G. C.

Ans.—In general composition fire clay is Kaolin or China clay (derived from the weathering of felspar or felsphatic rock), containing a fair proportion of free silica, as quartz, and practically free from alkalis. It is "almost infusible." The analysis of a good fire clay (Ohio) may be quoted as follows:

Table with 2 columns: Ingredient and Percentage. Silica 74.93, Alumina 17.19, Oxide of iron .79, Lime .29, Magnesia .46, Alkalies 1.61, Water 5.44.

100.71

Table with 2 columns: Ingredient and Percentage. Corresponding to clay substance 48.24, Quartz 49.72, Felspar 2.75.

100.71

In the analysis quoted by your correspondent, we think the percentage of silica is too low for first-class fire clay. However, clays differ so widely in their

fusibility, without this fact being indicated by their composition, that a practical test by an expert of the sample in question would be necessary to determine its value. Practicing analysts who would undertake this work are to be found in a number of our larger cities.

FRANK T. SHUTT, Chemist.

MATERIAL FOR CONCRETE WALL.

Would you kindly tell me how much it would take of stone, gravel and cement, to build a good wall 110 feet long, 8 feet high and 16 inches wide? I don't know how much cement to use to a bushel of gravel.

S. J. T.

Ans.—For wall work, one part, by measure, cement to eight parts good gravel, is about right. If the wall you intend building were made of gravel concrete alone, it would require about 10 or 11 cords of gravel and 40 to 45 barrels of cement. By imbedding in the walls 3 or 4 cords of stone, the quantity of gravel needed would be reduced to about 7 or 8 cords, and the cement in like proportion, to about 30 barrels.

CEMENT STABLE FLOORS.

I intend to put a cement floor in my horse and cow stable. Kindly tell me, through your paper, how many loads (1 cubic yard) of gravel, and how many barrels of cement it would take, and how thick the cement should be laid. The horse stable is 18x20 feet, and the cow stable is 18x45 feet.

SUBSCRIBER.

Ans.—It would be well to have the horse-stable floor four inches thick, and the floor of cow stable nearly that thick, except in alleyways, where it might be thinner. Allowing 1 part cement to 8 of gravel for floors, with a half-inch surface of 1 part cement to 3 parts sifted sand, the horse-stable floor would require in the neighborhood of 5 loads of gravel and 6 barrels of cement. For the cow stable, making some reduction for a thinner floor in parts, about twice those amounts would be required.

FERTILIZERS.

1. Would you advise the use of any commercial fertilizers on oats and potatoes and turnips, on clay loam? If so, about what quantities, and what kinds? The land has not been very well worked for a while, and manure is scarce. Gave a good coat of manure last winter. Intend to seed down to clover and timothy next spring. Any suggestions would be thankfully received.

R. A. P.

Ans.—We cannot advise positively. You might, under these conditions, use fertilizers with profit one year and observe little or no result the next. The use of fertilizers in Canada has not been attended with uniformly satisfactory results, and we can only suggest that you investigate for yourself the economy of fertilizers on your land. For grain, the following amounts of fertilizers per acre are suggested tentatively for your direction: 75 to 120 lbs. nitrate of soda, 200 to 300 lbs. acid phosphate, 75 to 120 lbs. muriate of potash. For potatoes, we suggest 150 to 200 lbs. nitrate of soda, 300 to 400 lbs. acid phosphate, and 150 to 250 lbs. sulphate of potash.

RAISING EARLY LAMBS.

How should I proceed to raise early lambs to catch the big prices at Easter? Would it be profitable to have them come at this time of year; or if they came later, would they require a very warm place at birth?

SUBSCRIBER.

Ans.—It is doubtful whether there would be any advantage in having the lambs come earlier than December or January, when the ewes are in winter quarters. Ewes other than those of the Dorset breed would not be likely to come in season soon enough to produce as early as December unless flushed by extra feeding. The lambs do not require very warm housing. They will stand a good deal of cold without injury after the first few hours. The ewes require to be liberally fed in order to induce a good flow of milk, and the lambs will learn to eat clover hay, oats and bran and pulped or sliced roots when three or four weeks old, and should be fed in a separate compartment with a "creep," through which they can go, but not large enough to admit the ewes. Fresh feed should be supplied the lambs daily, the food left over being given to the ewes.



# Contents of The Farmer's Advocate and Home Magazine.

VOL. XLV.

JULY 7 TO DECEMBER 29, 1910.

PART II.

NOTE TO SUBSCRIBERS.—Loosen staples, remove this eight-page form containing the index, and insert just within the back cover of the number. With all the issues stitched together in order, you will have a complete book, with the index on top, convenient for reference.

<p><b>APIARY.</b></p> <p>Apiarist: Woman's Advantages as an .....1941</p> <p>Foul Brood in the United States.....2045</p> <p>Honey Crop: The .....1284</p> <p>Wintering Bees Out of Doors.....1284</p>		<p>Glassware: Get the, Tested.....1452</p> <p>Holstein Pre-eminence .....1936</p> <p>How Much is Time Worth .....1846</p> <p>Men Who Know .....1250</p> <p>Milk: Care of in the Household.....1560</p> <p>Milk: Discouraging Manure In.....1775</p> <p>Milk: What does it cost to Produce 100 Pounds of .....1520</p> <p>Milk and Cream: Overrun in .....1774</p> <p>Milk: Payment for, by the Test.....2043</p> <p>Milk Prices: English .....1703</p> <p>Milk Production: Cost of .....1737, 1810(a), 1846</p> <p>Milk Records: Contrasts in .....1282</p> <p>Milk-making: Care in .....1320</p> <p>Milking Machines in Quebec Dairies.....1452</p> <p>Milking Machine in Use: The.....2079</p> <p>National Dairy Show: Chicago gets.....1104</p> <p>Not How Many, but How Good.....1141</p> <p>Oil Test versus Babcock .....1141</p> <p>Pail to Milk Into: A .....1630</p> <p>Pasteurizing Whey: Cost of.....1596</p> <p>Pasteurization of Milk for Cheese-making .....1176</p> <p>Perth County's Model Factories: One of .....1560</p> <p>Performance First; Looks Last.....1775</p> <p>Performers Breed Performers.....2080</p> <p>Price and Yield: Trend of .....1399</p> <p>Profit: In the Extra Lies the .....2006</p> <p>Rusty Cans: Effect of, on Coagulation .....1669</p> <p>Self-sucker: Another Device for.....1453</p> <p>Seven-day Tests: Monrad on .....1105</p> <p>Shorthorn and Guernsey Records.....1937</p> <p>Summer Soiling Indicated.....1521</p> <p>Testing the Cows .....1282</p> <p>Too Hot to Work .....1177</p> <p>Trinidad's Butter Trade .....1630</p> <p>Willow Cheese Factory.....1321</p>		<p>Education Commission: Gleanings by the .....1518</p> <p>Educational Commission: The Search of the .....1275</p> <p>Electrical Power: Do not Barter Away .....1697</p> <p>Emigration Statistics: British.....1518</p> <p>Enterprise and Favoritism.....1204</p> <p>Exhibition Grant: The Dominion.....1589</p> <p>Experimental Farm: The New P. E. Island .....1243</p> <p>Fairs: Elements of Success in.....1204</p> <p>Faith versus Works .....1517</p> <p>Fall Foals .....1387</p> <p>Farmers: A Country Governed by.....1169</p> <p>Farmers and Their Parasites.....1242</p> <p>Farming: Where Good, Tells.....1242</p> <p>Forests: Municipal .....1388</p> <p>Fruit-packing Contest .....1170</p> <p>German Rural Co-operative Banks.....2001</p> <p>How Little we Know .....1517</p> <p>"In Danger of Silence".....1276</p> <p>Industrial Education .....1842</p> <p>Institutes Must go Forward or Cease.....1697</p> <p>Institutes: The Old and the New in.....1881</p> <p>Investment: The Best .....1446</p> <p>Ireland: Notes from .....1243</p> <p>Judges: The Function of .....1241</p> <p>Land: The Return to the .....1626</p> <p>Law: Reducing the Monstrosities of the .....1241</p> <p>Leaky Granary: Like Filling a .....1135</p> <p>Life Standards .....1349</p> <p>Looking Forward .....1881</p> <p>Master or Servant of the Work.....1098</p> <p>Majority (?) Rule .....1553</p> <p>Milk Production: Cost of .....1733</p> <p>Mistakes: Too Busy to See His.....1313</p> <p>Moth: The Invading .....1133</p> <p>New Ontario: Colonize Now .....1661</p> <p>October Days .....1589</p> <p>Peace: Promoting .....2074</p> <p>Pioneers: The Story of the .....1481</p> <p>Plants: Kinship with the .....1883</p> <p>Plowing Matches and Colt Shows.....1626</p> <p>Power to Farmers' Doors: To Bring 2037</p> <p>Practical Idealism .....1662</p> <p>Public School: Elevate the .....1313</p> <p>Rabies .....1387</p> <p>Rabies Not Yet Stamped Out.....1805</p> <p>Rain-water Supply: The .....1769</p> <p>Rural Betterment: Country Ministers Confer for .....1350</p> <p>Rural Curriculum: Improve the .....1098</p> <p>Rural Education: How to Improve.....1805</p> <p>Rural Preachers: Summer Course for .....1169</p> <p>Rural School: The Ideal .....1733</p> <p>Rural Interests Inadequately Represented .....2074</p> <p>Sheep-raising Pays: Show that .....1481</p> <p>Silos Used and Abused .....1626</p> <p>Something Being Done .....1204</p> <p>Something for Nothing .....1445</p> <p>Something to Aim at .....1553</p> <p>Strikes: The Cause of .....1203</p> <p>Storms: Compensation of .....1625</p> <p>Success .....1697</p> <p>Tariff a National Question .....2073</p> <p>Tariff Principles and Expediency.....1590</p> <p>Tariff Reduction: Eastern Farmers also for .....1591</p> <p>Tariff that Drives Capital Out: A.....1097</p> <p>Teas: The Farmer and the .....1314</p> <p>Tariffs, Trusts, Prices and Wages.....1446</p> <p>Thieving Within the Banks .....1349</p> <p>Time: Place a Fair Value on.....1319</p> <p>Trade is Good, why Obstruct it: If.....1314</p> <p>Truth, the Whole Truth: The.....2002</p> <p>Tuberculosis Problem: The .....1553</p> <p>Unmuzzled Press: The .....1445</p> <p>Variety: Safety and Profit in.....1662</p> <p>White Slavery: Almost .....1169</p> <p>Who Will Pick Our Plums? .....1133</p> <p>Wind: Teachings of the .....1276</p> <p>Winter Fairs .....1842</p> <p>Wool-grading Stations: Seed of.....1276</p> <p>Wool Question and a Revenue Tariff.....1663</p> <p>Worst Industry: What Would it Cost? .....1134</p> <p>Young Men on the Farm .....1882</p>		<p><b>FARM.</b></p> <p>Alfalfa in Central Alberta.....1246</p> <p>Alfalfa in Minnesota: Grimm.....1810(a)</p> <p>Alfalfa on the Hill .....1773</p> <p>Alfalfa Successfully Seeded with Corn .....1208</p> <p>Army Worm: The .....1208</p> <p>Artichokes: Jerusalem .....1736</p> <p>Autumn-sown Crops: Results of Co-operative Experiments with.....1397</p> <p>Birds: Usefulness of .....1281</p> <p>Burgoyne's Pile .....1845</p> <p>Cement Silo: Labor and Materials for .....1210</p> <p>Clover for Seed: Growing.....1319</p> <p>Clover Seed .....1396</p> <p>Clover-seed Production in Ontario.....2078</p> <p>Couch Grass Eradicated .....2078</p> <p>Co-operative Associations: Mr. Hanna on .....2077</p> <p>Co-operation in Farming .....1318</p> <p>Corn for Ensilage: Cultivation and Cost .....2043</p> <p>Corn Wanted: Well-matured .....1485</p> <p>Crop Prospects in Canada: Good General .....1176</p> <p>Crops Good in Eastern Canada.....1667</p> <p>Drag Successful on Manitoba Roads.....1398</p> <p>Drainage Surveys Popular.....2079</p> <p>Drills Both Ways .....1398</p> <p>Dust Prevention and Road Preservation .....1176</p> <p>Duster on Threshing Machines.....1140</p> <p>Education: Will it pay a Farmer?.....1318</p> <p>Essex: Notes from .....1281</p> <p>Extension Work in Dundas, Stormont and Glengarry .....1247</p> <p>Factory Methods on the Farm.....1352</p> <p>Fall Wheat: Growing .....1398</p> <p>Fall Wheat in New Ontario .....1398</p> <p>Fall Wheat: Sowing .....1319</p> <p>Farm: A Thrifty Oxford County.....1486</p> <p>Farmers' Sons Leave the Farm: Why .....1319</p> <p>Fertilizers on Mangels: Commercial.....2078</p> <p>Fertilizers: Commercial .....1281</p> <p>Fertilizing: Fall .....1519</p> <p>Field Notes from Western Ontario.....1486</p> <p>Forests as Fertilizing Agents .....1320</p> <p>Fungicide Solution: Dipping Grain in .....1629</p> <p>Good-roads Question: A .....2005</p> <p>Goose Lake and its Mud Industry.....1701</p> <p>Grade: Per Cent of .....1103</p> <p>Grains, Grasses and Roots at MacDonald College .....1845</p> <p>Hay Derrick: A .....1103</p> <p>Hay-fork Haul: Saving Distance on.....1248</p>	
<p><b>DAIRY.</b></p> <p>"Aberdeen" Cheese Factory .....1282</p> <p>Alfalfa Hay Valuable .....1321</p> <p>Ayrshire Records: Premier .....1937</p> <p>Breeders' Association: Community.....1399</p> <p>Butter: From Beer to .....1521</p> <p>Butter: How Exhibition, was Made.....1521</p> <p>Butter Record for Thirty Days: the New World's .....1177</p> <p>Butter: Saltless, Instead of Salted.....1887</p> <p>Butter-fat and Butter: Composition of .....1738</p> <p>Casein: Experience with, in Kerwood Creamery .....1774</p> <p>Casein of Milk: The .....1702</p> <p>Cheese: A Mammoth .....1453</p> <p>Cheese: Camembert .....1321</p> <p>Cheese: Gervais Cream .....1560</p> <p>Cheese: Growing Popularity of New Zealand .....1775</p> <p>Cheese: Stilton .....1353</p> <p>Cheese vs. Butter .....1283</p> <p>Cheese Factory: A First-class Hamilton Co. ....1399</p> <p>Cheese-factory Work in Canada: Are the Babcock (fat) and the Hart (casein) Testers Practicable in 2.....1885</p> <p>Cheesemaking: Yesterday, To-day and To-morrow of Canadian.....1938</p> <p>Cool-curing at Bayside: Success with.....1487</p> <p>Cool-curing at the Bronk Factory.....1774</p> <p>Cool-curing in the Quinte Cheese Factory .....1250</p> <p>Co-operative Dairying in Nova Scotia: Prospects for .....1141</p> <p>Cows: Bringing up the .....1669</p> <p>Cows: Difference in .....1886</p> <p>Cows for Market: Producing.....1738</p> <p>Cow Stalls: Sanitary .....1210</p> <p>Cream: Abnormal Fermentation in.....1739</p> <p>Cream: Making Gold-medal .....1775</p> <p>Creamery: A \$4,000 .....1595</p> <p>Creamery and Cheese Meetings at Guelph .....2044</p> <p>Creamery Butter Experiments .....1487</p> <p>Creamery Needs and Suggestions.....1104</p> <p>Creamery Patrons: Cleanliness Among .....1283</p> <p>Creamery Sewage: Purification of.....1105</p> <p>Creameries: Laundries as Side Lines for .....1105</p> <p>Dairy Cow: The Profitable .....1249</p> <p>Dairy-cow Contest Results.....1703</p> <p>Dairy Cows: Once Again Profits from .....2079</p> <p>Dairy Commissioner's Report: A Glance at .....1739</p> <p>Dairy Meetings: Special .....1739</p> <p>Dairy Progress in New Zealand.....1887</p> <p>Dairy Test at Woodstock Fair.....1595</p> <p>Dairy World: Queens of the .....1935</p> <p>Dairy-herd Competition .....1596</p> <p>Dairying in Eastern Ontario.....1249</p> <p>Dairymen: Commandments for .....1738</p> <p>Dairymen: Ideas of Maine .....2079</p> <p>Double Cream Cheese .....1282</p> <p>Dual-purpose Cattle at MacDonald College .....1887</p> <p>Estimate: A Reasonable .....1886</p> <p>Factory: A Beside the .....1276</p> <p>Farmers: The New .....1290</p> <p>Faxons Testers: Profit from Coal-tar .....1353</p>		<p>EDITORIAL.</p> <p>A Fair and Convincing Argument.....1169</p> <p>Agriculture: Danish Encouragement of .....1842</p> <p>Agriculture: Newfoundland Promoting .....1842</p> <p>Agriculture: Prosperity of British.....1882</p> <p>Agricultural Education in the Schools .....1882</p> <p>Answering Correspondence .....1553</p> <p>Appreciation from a Reader.....1446</p> <p>Automobiles for Farmers.....1769</p> <p>Banks for Farmers: Co-operative .....1518</p> <p>Barn: the Time of the Big .....1097</p> <p>Biggar's (Mr.) Argument: Some Flaws in .....1133</p> <p>Bleached Flour .....1554</p> <p>Bookkeeping Systems: Money to be Made .....2037</p> <p>British Land Hunger .....1590</p> <p>Bureaucracy .....1733</p> <p>Business Sense in Business .....1120</p> <p>Canada, a Nation .....1923</p> <p>Casein Proposition: the .....1769</p> <p>Cheesemaking in Brackville District.....1446</p> <p>Church: the Country .....1446</p> <p>Co-operation: A New Angle .....1841</p> <p>Corn: A Study of .....1897</p> <p>Corn: The Glory of the .....1241</p> <p>Corn Cans in Kent School .....1896</p> <p>Classification According to Quality.....1242</p> <p>Diversification .....1143</p>					

DECEMBER 29

Horse Power and  
The cost of ...

Hydraulic Ram: T  
Hydraulic Ram:  
chamber for ...

Lightning-rod Erect  
Lightning-rods — C  
Value ...

Lightning-rods: Ho

Manure: Best Way  
Manure for Hay La  
Manure: Is it not  
Ton?

Manure: Saving and  
Maritime Agricultur  
of ...

New Ontario Opport  
About ...

New Ontario: What  
in ...

Oils and Oiling ...

Packing-houses: Loc  
Pasture Crops ...

Pippen Partitions ...

Plank-frame Barn ...

Plow: The ...

Plow: Contentment  
Potatoes: Change Y  
Poultry Manure: Pre  
Production on Farms  
Pulpwood in New On  
turns from ...

Pure-seed Trade: Cr

Rain-water Supply or  
Rape: Sowing in th  
Reforestation ...

Rented-farm Problem  
Roof: A strong Sen  
Root and Forage Gro  
Rotation Question:  
Rotation of Crops Ch  
Round Barn with Ce  
Russian Thistle ...

Seed: Grain from G  
Seeds: The Longvit  
Seed Corn: Saving  
Seed Corn: Selecting  
Seed Corn: Storing  
Septic Tank for Sewa  
Shocks: Long Ones i  
Silo: Four Men in t  
Silo: Handling Corn  
Silo: New Concrete  
Silo Roofs: Two Mi  
Silo: The Iowa ...

Silo Experience ...

Silo-filling Suggestions  
Soil Fertility: A Brit  
Soil Moisture and Its  
Sow Thistle Problem ...

Sow Thistle: Can Ki  
Sparrow: The English  
Split-log Drag: How  
Spring tooth for Gr  
Fields ...

Stinkweed or Pennu  
Sugar cane: Cutting

Temiskaming District:  
ences from ...

Thistles: A Spray to  
Seeding ...

Tile Drains Increase Y  
Tiling Roofs in Illinois  
Tobacco Barn: A Lat  
Tread Power: Likes t  
Twitch Grass: Era  
Corn Crop ...

Two Furrows are  
One?

Wagon Tires and Good  
Wagon-lack: Fign-fo  
West: Easy Way of I  
West Crops: Europe  
West Prices Ruled B  
Western: Percentage  
Wheat: After More  
Wheat as a Practical  
solution: A  
Wheat: Peering of  
Wheat Management



Horse Power and Machine Power: The cost of .....1737 Hydraulic Ram: The .....1485 Hydraulic Ram: Diaphragm Air-chamber for .....1593

Lightning-rod Erection .....1702 Lightning-rods - Construction and Value .....1104 Lightning-rods: Homemade .....1208

Manure: Best Way of Applying.....1885 Manure for Hay Land.....1176 Manure: Is it not Worth \$2.60 a Ton? .....1395 Manure: Saving and Application of.....1103 Maritime Agriculture: The Uplift of .....1931

New Ontario Opportunities: More About .....1104 New Ontario: What Men Have Done in .....1667

Oils and Oiling .....2077

Packing-houses: Local .....1629 Pasture Crops .....1451 Pigeon Partitions .....1281 Plank-frame Barn .....1140 Plow: The .....1933 Plow: Contentment at the .....1932 Potatoes: Change Your Seed.....1885 Poultry Manure: Preservation of.....1629 Production on Farms: Cost of.....1317 Pulpwood in New Ontario: Net Returns from .....1737 Pure-seed Trade: Crimes of.....1846

Rain-water Supply on the Farm.....1773 Rape: Sowing in the Corn .....1248 Reforestation .....1280 Rented-farm Problem: The .....1210 Roof: A strong Semicircular.....1558 Root and Forage Crops, O.A.C.....1394 Rotation Question: A .....1139 Rotation of Crops Cleans Land.....1139 Round Barn with Central Silo.....1140 Russian Thistle .....1398

Seed: Grain from Good .....1352 Seeds: The Longevity of .....1248 Seed Corn: Saving .....1486 Seed Corn: Selecting .....1593 Seed Corn: Storing .....1629 Septic Tank for Sewage Disposal.....1594 Shocks: Long Ones in Favor.....1208 Silo: Four Men in the .....1487 Silo: Handling Corn for the .....1520 Silo: New Concrete .....1281 Silo Roofs: Two Middlesex.....1175 Silo: The Iowa .....1207 Silo Experience .....2077 Silo-filling Suggestions: Sensible.....1451 Soil Fertility: A British Discovery.....1593 Soil Moisture and Its Uses .....1248 Sow Thistle Problem .....1246 Sow Thistle: Can Kill .....1737 Sparrow: The English .....1104 Split-log Drag: How we have used.....1209 Spring tooth for Grassy Alfalfa Fields .....1520 Stinkweed or Penny Cress .....1208 Sugar cane: Cutting .....1593

Temiskaming District: More Experiences from .....1702 Thistles: A Spray to Keep from Seeding .....1140 Tiling Drains Increase Yields.....1520 Tiling Roofs in Illinois .....1208 Tobacco Barn: A Large .....1558 Tread Power: Likes the .....1884 Twitch Grass: Eradicating with Corn Crop .....1737 Two Furrows are Better than One.....2005

Wagon Tires and Good Roads .....1175 Wagon-tire: Five-four .....1846 Wheat: Easy Way of Preparing for.....1451 Wheat Crops: European .....1558 Wheat Prices: Ruled High .....1520 Wheat: Percentage of .....1208 Wheat: After More Light on.....1209 Wheat as a Practical Farm Proposition: A .....2042 Wheat: Forcing of the .....1207 Wheat Management .....1279

FARM BULLETIN.

Advice Wanted .....1144 A Green August .....1357 Agriculture: Ontario, What is the Matter with? .....1107, 1213 Agricultural Appointments: Dominion .....1109 Agricultural Schools in the States.....1454 Alfalfa and Pasture: Renewing.....1252 Alfalfa Competition Popular in Saskatchewan .....1182 Alfalfa in the Clay Belt .....1741 An Economic Reaction .....1255 Annapolis Valley Notes .....1106 Apiary Prospects: Bright .....1596 Apple Show: New Brunswick's Big.....1671, 1778 Apple: The Cold-storage .....1355 Apples at Ingersoll: Good .....1597 Apples: Advertising Ours in Belgium .....1853 Apples in Bad Condition .....1564 Apple-growing in Ontario .....1286 Argentine Republic: Agricultural Progress in .....1402 (c) Argentine Stock Still Excluded.....1109 A Significant Move .....1776 Athletics in Rural Communities.....1255 Australia: Another Budget from.....1142 Autumn Work and Weeds.....1633 Ayrshire Sale: Ferguson's .....1777 Ayrshire Sale: Lotus Field's.....1853

Baby-feeding Demonstration.....1597 "Back to the Farm" and the Stock Exchange .....1106 Bee-keeping Flourishes: Ontario.....1851 Breed-study Contest.....1143, 1216, 1287, 1358, 1402, 1495 Bright Crop Prospects in the Island.....1215 British Columbia Provincial Exhibition at New Westminster .....1705

Calgary Exhibition .....1214 Campbell: Death of A. M. ....1707 Canada's Revenue for the First Four Months of the Fiscal Year .....1286 Canada's Trade with Britain.....1356 Canada's 28-hour Law .....1358 Cattle Embargo Stays: The .....1145 Central Canada Exhibition .....1528 Census Values: Enumeration of.....1287 Certificates for U. S. Pure-bred Stock Importation .....1891 Cheese and Creamery Meetings at Guelph .....1777 Clydesdale Sale: Dr. McEachran's.....1742 Club: A Successful .....2081 Cobourg Horse Show .....1358 Colonization Booklets: Two New.....1776 Co-operative Egg-marketing Discussed at Chatham .....1181 Corn Crop: Big U. S. ....1812 Cost of Living: The .....1252 Cough of Pregnancy .....1402 (c) Craig: Death of Prof. John A.....1356 Crop Report for July: Dominion.....1324 Crop Report for July: Nova Scotia.....1324 Crops: Ontario .....1402 (a) Crops: Nearly 3 1/2 Billion Dollars' Worth of .....2082

Dairy Branch at Toronto Fair: The Dominion .....1325 Dairy Conditions Improving .....1357 Dairy Conventions at Stratford and Perth .....1495 Dairy Show at Montreal this Year: No .....1707 Dairy Show in Montreal: a National .....1495 Dairymen Get Demands .....1182 Dairymen Meet: B. C. ....1402 (c) Destructive Insects and Pests Act.....1287 Distressful (?) Country: The .....1812 Dodder: Eradicating .....1214 Dominion Exhibition at St. John, N. B. ....1523 Dominion Grange: Annual Meeting of .....1890 Dominion Grange Discusses Vital Problems .....2047 Donald "Ban": Sayings and Doings of.....1671, 1741, 1813, 1891, 2082 Dorchester Society: Standing-crop Competition .....1325 Draggod Roads in Manitoba .....1670 Drainage Demonstration .....1356

East Middlesex Crops and Improvements .....1108 East York Observations .....1255, 1561 Edmonton Fair .....1495 Education Commission: The Industrial .....1402 (c) Eggs in Cold Storage .....1145 Electric Power for Farmers .....2012

Elevators: Manitoba .....1255 Embargo: A Canadian .....1253 Essex: Hot Weather in .....1109 Essex Notes .....1596 Essex: Reports from .....1778 Experimental Union to Meet in January .....1495 Exporters: How New U. S. Regulations Affect Canadian Livestock .....2082 Express Rates Excessive .....2083

Fairs: Township vs. County .....1597 Fall Fodds: Experience with, Wanted.....1215 Farm Management in Missouri Agricultural College .....1180 Farmers' Clubs Active in Thunder Bay District .....1215 Farmers' Club Officers: A Conference of .....1848 Farmers' Institute Tent at Toronto Exhibition .....1324 Farmers' Institute Workers .....1354 Farmers' Institutes and Clubs: Conference of .....1741 Farmers' Institutes and Farmers' Clubs: The Conference of Representatives of .....1853 Fertilizers Act, 1909: The .....1707 Field Practice: Important Principles in .....1948 Five-acre Farm: A Year's Story of.....1949 Food Standards: New .....1707 Foul Brood in New Zealand: Controlling .....1182 Fruit-crop Report for June .....1144 Fruit-crop Report for July: Dominion .....1286

Good Crops and More Silos .....1563 Good Roads Convention: U. S. National .....1284 Good Sense, Rather than Fine Clothes .....1215 Graduate School of Agriculture Closes .....1286 Grain: Nearly Half a Billion Bushels of .....1522 Grain Production: To Increase .....1670 Grain Shipments from Montreal: Increase in .....1707 Gunn: Death of Andrew .....1286

Hackney Affairs .....1106 Harvesting in Essex .....1182 Highland and Agricultural Society Show .....1253 Hogs: How Many per Cow? .....1890 Hog-pen Partitions .....1357 Horses at Winter Fair: \$3,500 in Prizes for .....1671 Horse Power: Cost of .....1813 Horse Power: Regarding .....1706 Horticultural Convention: Ontario.....1564 Horticultural Convention Programme.....1488 Horticultural Exhibition and Conventions .....1848 Horticultural Exhibition: Ontario.....1852 Huron: Good prospects in .....1109 Hydro-Electric Installation .....1672

Immigration Department: Canadian Northern .....1742 Implement Factory for Welland: Large .....1357 Importation: Conditions of U. S. Free .....1946 Improved Stock for Quebec .....1531 Institute Problems: Canadians Discuss, Abroad .....1853 International Exposition Judges .....1706 Interpreted: Incorrectly .....1355 Inter-provincial Conference at Vancouver .....1402 (b)

Judge: The International Foreign .....1495 Judging Contest: Ontario Winter Fair .....2013 Judging: Short Courses in Livestock .....2083 Judging Programme at Winter Fair 1891 .....1943

Letters from Two Country Boys in the City .....1145 Lincoln County Annual People .....1324 Livestock Exposition: The 1910 International .....1943

Milk Record: Making a New World's .....1216 Milk-cow Contrasts: Some July.....1857 Million Mark: Approaching the.....1488 Moisture: Conserving .....1563 Mutch: Death of George .....1857

New Ontario: Good Crops in.....1287 New Ontario: Needs of .....1707 New Ontario: Opportunities in.....1402 (b) New Ontario Prosperous .....1402 (c) New Ontario: Twenty-thousand-dollar Farms in .....1635 New York Horse Show: Notes on.....1854 Nova Scotia Fruit-growers' Meeting.....2012 Nova Scotia: Progress in .....1144 Nova Scotia Provincial Exhibition.....1634

O. A. C. Exhibit at Toronto .....1358 Occupations in Canada .....1324 Ontario Crops Good .....1848 Ontario Winter Fair to Open Monday, Dec. 5th .....1109 Paint to Protect Implement Steel from Rusting .....1890 Passenger Pigeon: The Search for the .....1706 Parliament: The People in Their.....2048 Peaches in Britain .....1495 Peart: The late H. S. ....1216 Percherons: Regulating Importations of, to United States.....1108 Plant Study for Boys and Girls: A Guide in .....1324 Poland-China Breeders Wish to Show .....2081 Plot Work of C. S. G. A. Members: Notes on the .....1632 Potato Market in Cuba: Good.....1181 Potatoes: Rot in the .....1813 Potatoes: The Swiftest .....1457 Poultry at the Winter Fair.....1777 Poultry Association: Form a.....1402 (b) Poultry Stock for the West.....1636 Poultry-feeding Station: Another.....1632 Poultrymen See Minister of Agriculture .....1252 Prince Edward Island Exhibition.....1597 Prince Edward Island: July Crop Report for .....1255 Profits: Where are they? .....1324 Prince Edward Island Letter.....1670 Protection not Everything .....1597 Pure-bred Sires: Premium for.....1704

Quebec Fruit-growers .....2012 Railroads: Valuing the .....1741 Ram: To Overcome Pounding of.....1564 Reciprocity: Taft Speaks on.....1215 Red Schoolhouse Improved: The.....1106 Rennie: The Late William .....1216 Royal Show: The .....1108 Royal: Sheep and Swine at the.....1144 Rural Science School, Truro, N. S.....1355

Scottish Letter: Our .....1285, 1777 Scottish Shorthorn Sale: The.....1707 Seed Cases .....1181 Seven and a Half Millions: Nearly.....1358 Sheep Industry: To Develop.....1457 Sherbrooke: Another Fair Season Opened at .....1454 Shropshire Breeders, Attention! .....1671 Sink Drain: Large Tile for .....1522 Simcoe Co.: Fine Dry Fall in .....1704 Smith: Death of Dr. Andrew .....1355 Smithfield Club Show .....2047 Snow: Plowing Under .....1891 South Ontario Notes .....1252 South Ontario Homestead: A Fine.....1402 South Oxford: Progress in .....1109 South Perth .....1564 Sow: A Prolific .....1355 Still Stands by Her Guns .....1214 Standard-bred Horses: A Canadian Record for .....1672

Tariff: To Urge Lower .....1564 Taxation: Favors Direct .....1563 Technical Education Commission .....1706 Technical Education Commission at Work .....1145 Technical Training for Fishermen and Farmers .....1286 Temiskaming: More from .....1108 The Road Thing .....1143 Thanksgiving Day: Oct. 31st .....1564 Tinsy Hinds .....1355 Toronto Exhibition as a National Peace-maker: The .....1455 Toronto: New Poultry Building at.....1144 Toronto Open-air Parade and Horse Show .....1109 Trade: Big Increase in .....1215



Trade Increasing Twelve Millions a Month ..... 1358  
 Tuberculosis Commission's Report ..... 1531  
 Tuberculosis: How it is Introduced Among Cows ..... 1287

Uhlan Trots a Mile in 1.58 1/2 ..... 1356  
 United States: A Lesson from ..... 1145  
 United States Crop Condition ..... 1706  
 United States Crop Conditions Below the Average ..... 1143  
 United States National Dairy Show ..... 1741

Vancouver Exhibition: The ..... 1402 (a)  
 Vegetable-growers' Convention at London, Ontario ..... 1527  
 Victoria Exhibition: The ..... 1633

Weeds: Evils of the Farm ..... 1890  
 Weed Seeds in Western Feeding-stuffs ..... 1216  
 Western Crop: The ..... 1216  
 Western Fair Favored with Fine Weather ..... 1524  
 Wheat Crop of 1910 ..... 1254, 1353  
 Wheat Crop Below Average: The World's ..... 1707  
 Wheat: Excessive Growth of Fall ..... 1597  
 Wheat: Moderate Marketing of ..... 1357  
 Whitney (Sir James) Goes to England ..... 1357  
 Why Young People Leave the Farm ..... 1180  
 Wilson: J. Lockie, Abroad ..... 1216  
 Winnipeg Exhibition ..... 1254  
 Winter Fair Entires Close Saturday, November 19th ..... 1814  
 Winter Fair: Railway Passenger Rates to ..... 1853  
 Winter Fair Programme ..... 1814  
 Winter Fair: Twenty-seventh Ontario ..... 2007  
 Winter Fair Will be in Full Swing on Monday ..... 1891  
 Winter Fair: \$3,400 in Sheep and Swine Prizes at ..... 1742

GARDEN AND ORCHARD.

Aphides: Milking the ..... 1252  
 Apple Boxes: Nearly Four Miles of ..... 1561  
 Apple-buyers' Experience: An ..... 2081  
 Apple Crop Light: American ..... 1354  
 Apple Crop Uneven: American ..... 1251  
 Apple-thinning in British Columbia ..... 1178  
 Apple Prices Good ..... 1596  
 Apple Prices: Prospects for Good ..... 1483  
 Apple Show a Great Success: Canadian National ..... 1811  
 Apple Show: Canadian National ..... 1354, 1401  
 Apples Complimented: Dundas Co. ..... 1670  
 Apples Originated in the Horticultural Division ..... 1847  
 Apples: \$3.00 for ..... 1488  
 Ashes as Fertilizer ..... 1522

Blueberry Culture: Experiments in ..... 1740  
 Boxed-fruit Competition: American ..... 2047  
 Brown-tailed Moth: An Educational Campaign Against ..... 1106

Cabbage Worms and Lice ..... 1213  
 California Apples in Toronto ..... 1703  
 Cider: Keeping Sweet and Making into Vinegar ..... 1563  
 Cider Industry: The ..... 1632  
 Cider-making: Cull Fruit and ..... 1630  
 Cold Storage of Apples ..... 1322  
 Cover Crops: Different ..... 1321  
 Cover Crops: Now a ..... 1142  
 Cover Crops: Value of ..... 1179  
 Cull Apples: Sell to Evaporator ..... 1670  
 Currants: Money in ..... 1492

Early potato: Growing ..... 1562  
 Entomologists Confer: Ontario ..... 1810(b)  
 Expert Advice that Paid ..... 1847

Fire Blight Successfully Combated ..... 1888  
 Freight Rates: Milted by ..... 2080  
 Fruit Crop: British ..... 1284  
 Fruit Crop in Nova Scotia: Poor ..... 1251  
 Fruit Crop: Notes on the ..... 1284  
 Fruit-crop Report for September ..... 1631  
 Fruit-culture in Quebec ..... 1740  
 Fruit-exporters: Attractive Outlook ..... 1596  
 Fruit-growers: A Lesson from ..... 2080  
 Fruit-growers: A Lesson from ..... 1631  
 Fruit-growers: A Lesson from ..... 1179  
 Fruit-growers: A Lesson from ..... 1179  
 Fruit-growers: A Lesson from ..... 1179

Garden Roller: Homemade ..... 1571  
 Grafting Spy on Ben Davis ..... 1571  
 Grapevines and Berry Canes: Protecting ..... 1632

Jordan Harbor Station: New Superintendent for ..... 1812

Lawn-making: Use of Sod in ..... 1180  
 Lime-sulphur: Good Results from ..... 1438  
 Little-peach Disease ..... 1811

New Brunswick Fruit Exhibition ..... 1631  
 New Ontario: Fine Potatoes and Turnips in ..... 1669  
 Nursey Stock: To Importers of ..... 1522

Ontario Horticultural Exhibition ..... 1487  
 Ontario Horticultural Exhibition: Single Fare to ..... 1703  
 Orchard: Care of, Pays ..... 1401  
 Orchard: Fall Treatment of the ..... 1284  
 Orchard Lands: Value of ..... 1630  
 Orchard Results: Another Year's ..... 1934  
 Orchard Tragedy: An ..... 1150  
 Orchards: Artificial Heating of ..... 1213  
 Orchards: Government Demonstration ..... 1775

Peach Shipments to Britain: Ontario ..... 1670  
 Peaches for Great Britain ..... 1252  
 Peppers: An Acre of ..... 1776  
 Plant-breeding at Jordan Harbor ..... 1252  
 Plum Possibilities: Quebec's ..... 1631  
 Potato: Wart Disease of the ..... 1453  
 Potato Yield ..... 1704  
 Potatoes: Improved Method of Spraying ..... 1354  
 Potatoes: Some ..... 2081  
 Potato-growing Experiment: A P. E. Island ..... 1847  
 Potato-spraying Advisable in Dry Weather ..... 1179  
 Potato-spraying: Value of ..... 1848  
 Prince Edward Island Fruit Industry Progressing ..... 2046

Quebec Fruit-growers' Convention: Points from ..... 2046

Scab Fungus on Set of Fruit: Effect of ..... 2081  
 Spraying: Conspicuous Benefit from ..... 1631  
 Strawberries: A Bumper Crop of ..... 1251  
 Strawberries Successfully Shipped to Winnipeg by Freight ..... 1179  
 Sugar-beet Production ..... 1889  
 Sweet Corn on the Farm ..... 1740

Thinning Apples ..... 1178  
 Tillage vs. Sod Mulch ..... 1322  
 Time Cards ..... 1890  
 Tree Roots: To Avoid Smothering ..... 1106

Vegetable Crop: The ..... 1284  
 Vegetable-crop Reports ..... 1562  
 Vegetable-crop Prospects, June 1st ..... 1142  
 Vegetable-growers: Quebec, Hold Profitable Convention ..... 2080  
 Vegetable-growing: Small Fruits in Connection with ..... 1562

HORSES.

Army Horses: Care of ..... 1214

Breed-study Contest ..... 1205, 1807, 2003  
 Breeding Policies ..... 1351  
 Brood Mares on the Farm ..... 1699  
 Buying Advice ..... 1731

Carrots for Horses ..... 1843  
 Classification at Fairs ..... 1554  
 Clydesdales in Canada ..... 1661, 1698, 1731, 1770  
 Colts at Fairs ..... 1731  
 Colts: Cost of Raising ..... 1698

Draft-horse Opportunities ..... 1921  
 Draft Stallion: Between ..... 1571  
 Draft: Feeding ..... 1807  
 Draft: The ..... 1179  
 Draft: The ..... 1179  
 Draft: The ..... 1179

Full Colts: Favors Raising ..... 1205  
 Full-colt Competition ..... 1389  
 Full-foals Experience: A Five-dollar Bill for ..... 1244  
 Feeding City Work Teams ..... 2003  
 Feet: Care of the ..... 1277  
 Feet: The Horse's ..... 1807  
 Foul Feet ..... 1205

General-purpose Horse at Fairs: The ..... 1700  
 General-purpose Horse: Re the ..... 1843  
 General-purpose Horse: The ..... 2075

Horse: Front Legs of the ..... 1883  
 Horse Improvement ..... 1806  
 Horse Improvement by Law ..... 1591  
 Horse Lectures at the Winter Fair ..... 2038  
 Horse Power: An Eye-opener on Cost of ..... 2003  
 Horse Power: Cost of ..... 1626, 2038  
 Horse Power on the Farm: The Cost of ..... 2075

Horse Supply: Report of Committee on ..... 1136  
 Horse: The Head of the ..... 1172  
 Horse: \$147.35 a Year to Keep a Hard-working ..... 2003  
 Horses for Market: Fatten ..... 1447  
 Horses: Money in ..... 1315  
 Horses: Producing for Market ..... 1482  
 Horses: West Can Raise Good ..... 1519  
 Horse-breeding Rules ..... 1244  
 Horse-breeding Scheme for Great Britain ..... 1663  
 Horse-feeding Experiments ..... 1276

Importation: Regulations of ..... 1136  
 Importation Fees: United States, Percheron ..... 1390

Joint Ill and Pervious Urachus ..... 1205

Market: Meeting the ..... 1136  
 Mating: Indiscriminate ..... 1350  
 Misleading Record: A ..... 2075

Pony's Value: The ..... 1214

Ration: A Developing ..... 1626  
 Ringworm ..... 1518

Scottish Letter: Our ..... 1182  
 Stabling for Colts ..... 1591

"The Beam and the Mote" ..... 1099, 1170  
 Thoroughbred: A Use for the ..... 1171

Weans His Colts Now ..... 1172  
 Weaning Time: Mare and Foal at ..... 1315  
 Weaning: The Colt After ..... 1555  
 Winter Care of Weanlings ..... 1770

ILLUSTRATIONS.

Aberdeen Cheese Factory ..... 1282  
 A "Character" ..... 1395  
 A Corner of the Grounds at the Grange ..... 1602  
 A Count of Heads ..... 1178  
 Agriculture: Executive Canadian Council of ..... 2019  
 Air: Man Conquering the ..... 1818  
 Albrecht Bierling ..... 1181  
 Alfalfa Field in Dufferin Co. ..... 1396  
 Alfalfa: Grimm ..... 1810(a)  
 Alfalfa: Mowing, on Mr. Parson's Farm ..... 1102(a)  
 A Man's Character is Reflected in the Furrows He Turns ..... 1933  
 Amos: Geo. ..... 1391  
 Antonius ..... 1102(b)  
 A "Now" Bit of Rosedale ..... 1602  
 Annie Laurie ..... 1936  
 A Novel Highway ..... 1105  
 Anton Lang ..... 1181  
 Apple Shipments at Pt. Edward: A Day's ..... 1595  
 Apple Show: The "Baldwin House" at ..... 1849  
 Archer's First ..... 1700  
 Archibald: C. A. ..... 1185  
 Auchincloss: Janet ..... 1152  
 Autumn Path: An ..... 1916  
 Avulsion as Applied in Agriculture ..... 1928  
 Avonbank, Ont., Cheese and Butter Factory ..... 1561  
 Avonbank Cheese Factory: Where the Whey From is Made into Food ..... 1561  
 A Year's Bull: Yearling ..... 1560

Ayrshire Heifer at the Highland Show: A First-prize ..... 1390

Back Yard Should Be Attractive ..... 1105  
 Bainard's Orchard: A Well-loaded Tree in ..... 1631  
 Ballymaclinton ..... 1258  
 Bardon Forest Princess ..... 1171  
 Bargenock Blue Bell ..... 1524  
 Bargenock Bonnie Scotland ..... 1712  
 Barn Built Around a Silo: Circular ..... 1140  
 Baron Ashvale ..... 1315  
 Baron Garty ..... 1771  
 Barron: John G. ..... 1485  
 Baroness Insch ..... 2083  
 Bayside Cheese Factory and Maker's Residence ..... 1487  
 Beauty Hark 2nd ..... 1890  
 Bock: Hon. Adam ..... 1622  
 Bedroom: An Attractive ..... 2089  
 Beef Cuts ..... 1810  
 Bees at Hespeler, Ont.: A Swarm of ..... 1401  
 Beets: Italian Style ..... 1571  
 Benachie and the Don Valley, Aberdeenshire ..... 1947

Ben Wyvis ..... 1665  
 Berkshire Sow: A Royal Champion ..... 1391  
 Beware of the Dog ..... 1956  
 Blanche Surprise ..... 1813  
 "Board of Health": The ..... 1328  
 Boquhan Lady Peggy ..... 1390  
 Breakfast Corn Cake ..... 1571  
 Breed-study Contest: What Breed is This Bull? ..... 1143  
 What Breed is This Bull, and Why? ..... 2076  
 What Breed is This Horse? ..... 1205, 1699, 1807

What Breed is This Cow? ..... 1287  
 What Breed is This Sheep? ..... 1402  
 What Breed is This Pig? ..... 1556  
 Bridge: A Rustic ..... 1407  
 Bridge is an Attractive Feature: A ..... 1406  
 Bright: John ..... 1771  
 British Columbia's Fruit Exhibit at the Eastern Fairs ..... 1562

Brook in February: The ..... 1937  
 Brookins: Walter ..... 1111  
 Brown: The Late Hon. George ..... 1173  
 Bruce: The ..... 1389  
 Bryant: William Cullen ..... 1744  
 Bugs: Prince Edward Island ..... 1215  
 Bunyan's Statue, Bedford ..... 1781  
 Burton: S. E., Port Stanley, Ont. ..... 2048  
 Business Farming ..... 1896  
 Butchering ..... 2001  
 "By the Bright Waters" ..... 1483

Cabbage Salad with Beets ..... 1571  
 Cadet ..... 1807  
 Calamity Starlight Butter Girl: Holstein Cow ..... 2008  
 Campbell, A. D., B.S.A. ..... 1247  
 Canal and Tow-path to Rear of Mr. Redfield's Home ..... 1147  
 Canoeing Days ..... 1113  
 Carcass Mutton and Lamb ..... 1814  
 Carlo "Learning": His A, B, C's ..... 1601  
 Carpet Beetle: The ..... 1191  
 Caterpillar and Male Adult of the Cecropia Moth ..... 1496  
 Charity ..... 1817  
 Childhood, Whose Very Happiness is Love? ..... 1930

Christmas Cake ..... 1957  
 Christmas Holly: With ..... 1957  
 Christmas Morning ..... 1956  
 Christmas Presents You Can Make at Home ..... 1746  
 Christmas Suggestions ..... 1822  
 Chums ..... 1462, 2087  
 Chums in Childhood: Friends for Life ..... 1932  
 Cicely at Three Years Old ..... 1351  
 Clover Field in New Ontario ..... 1639  
 "Cock that Crows in the Morn": This is the ..... 1400  
 Colantha 4th's Johanna ..... 1936  
 Colony Houses: The ..... 1942  
 Colony House and the Hopper Feeder at Macdonald College ..... 2015  
 Colham: Henry ..... 1317  
 Contentment at the Plow ..... 1932  
 Cookery: Attractive ..... 1712  
 Corfe Castle ..... 1360  
 Corfe Castle: Chapel Ruins ..... 1331  
 Corfe Castle: Gate of ..... 1331  
 Corn Preslows: Loading ..... 1396  
 Corn: The Giant Upbringing ..... 1219  
 Cotswold Shearling Run ..... 1699  
 Count de Kol Pietertje Paul ..... 2044  
 Cow Stalls: Sanitary ..... 1241  
 Cow: The World's Milk Record ..... 1287  
 Coxy Type: The ..... 1292  
 Creamery Built on the Grayly Plain: A ..... 1771

Curtis: George William ..... 2036  
 Cushions ..... 1717  
 Cote 2nd ..... 1292

Dairy Cattle on Pasture ..... 1740  
 Dairy Ward Island ..... 1740  
 De Kol Queen La Pol ..... 1740  
 De Kol Pauline Sadie ..... 1740  
 Dexter Cattle ..... 1740  
 Dido's Fleet at Cartha ..... 1740  
 Dining-room: A Dignified ..... 1740  
 Donald Ban ..... 1740  
 Donegal Carpet and ..... 1740  
 Doreen ..... 1740  
 Dorset Horn Ewe and Lambs: First-prize old ..... 1740  
 Dorset Horn Ewe: Shearling, and ..... 1740  
 Dot of Elmwood ..... 1740  
 Draft Horse ..... 1740  
 Drafters in Toronto ..... 1740  
 Gray ..... 1740  
 Dryden: The Late J. Duke of Kingston ..... 1740

Edwards: Hon. W. C. ..... 1740  
 Eggs: Grading ..... 1740  
 Emslie: B. Leslie ..... 1740  
 Emerson: Ralph Waldo ..... 1740  
 English Homestead: Eucalyptus ..... 1740  
 Eucalyptus Forest: Experimental Farm, ..... 1740

Fair Queen ..... 1740  
 Farm Home in the County of Nova Scotia ..... 1740  
 Farnyard: In the ..... 1740  
 Filipino Beef ..... 1740  
 Fine Arts Palace, Jubilee Exhibition, London ..... 1740  
 Fire Blight ..... 1740  
 Platt: W. D. ..... 1740  
 Flavelle's Advice ..... 1740  
 Flocks: Two Beauties ..... 1740  
 Flora 90th at Two ..... 1740  
 Flowers: A Tangle ..... 1740  
 Foam Tart and Coffee ..... 1740  
 Foxboro Cheese Factory from a Painting ..... 1740  
 Frost: Prepared to ..... 1740  
 Fruit and Nut Roll ..... 1740

Garden: A Japanese ..... 1740  
 Garden in Argentina ..... 1740  
 Gleanings ..... 1740  
 Georgian Bay: An Island of ..... 1740  
 Gibson: Richard ..... 1740  
 Ginger Cakes: Plat ..... 1740  
 Glenavon ..... 1740  
 Goat: A Champion ..... 1740  
 Golden Jolly Champ ..... 1740  
 "Goops": The ..... 1740  
 "Goops": Dressing ..... 1740  
 Graduates of Our Schools: Country Life ..... 1740  
 Graham: Thomas ..... 1740  
 Grain Warehouses ..... 1740

Hackney Character ..... 1740  
 Hackney Filly: Yes ..... 1740  
 Haines' (Mr.) Hou ..... 1740  
 Halstead: Royal D ..... 1740  
 Hamilton: Chas. ..... 1740  
 Hampshire Lambs ..... 1740  
 Hampshire at Roy ..... 1740  
 Judging ..... 1740  
 Handan's Point ..... 1740  
 Roads ..... 1740  
 Happy With a Bo ..... 1740  
 Harvest Scene: A ..... 1740  
 Harvesting the Gr ..... 1740  
 Harvest Field, Refr ..... 1740  
 Hauling in a S ..... 1740  
 Hawthorne: Nallie ..... 1740  
 Hay Derrick ..... 1740  
 Hay: Gathering ..... 1740  
 Hay: Making on t ..... 1740  
 Armstrong, En ..... 1740  
 Hay on the N ..... 1740  
 tervale ..... 1740  
 Hayes Corporation ..... 1740  
 Hereford Cow, G ..... 1740  
 Show, England ..... 1740  
 Hereford Steer ..... 1740  
 Hooping His Own ..... 1740  
 Hops: Picking ..... 1740  
 Hops: Crossing the ..... 1740  
 Hops: The Late ..... 1740  
 Horses: Front Leg ..... 1740



Dairy Cattle on Pasture, Prince Edward Island	1141	Dairy Herd: A Prizewinning	1141	Daisy Pietertje Johanna, Five-year-old Holstein Cow	1353	Davidson: The Late James L.	1316	De Kol Queen La Polka 2nd	1177	De Kol Pauline Sadie Vale	1669	Dexter Cattle	1160	Dido's Fleet at Carthage	1960	Dining-room: A Dignified	2088	"Donald Ban"	1948	Donegal Carpet and Lace Makers	1259	Doreen	1887	Dorset Horn Ewe and Pair of Fall Lambs: First-prize, Two-year-old	1520	Dorset Horn Ewe: First-prize Shearling, and Champion	1557	Dot of Elmwood	2079	Draft Horse	1924	Drafters in Toronto: A Pair of Gray	1925	Dryden: The Late John	1137	Duke of Kingston 2nd	1138	Edwards: Hon. W. C.	1279	Eggs: Gradling	1177	Emslie: B. Leshe	1947	Emerson: Ralph Waldo	1289	English Homestead: An	1397	Eucalyptus Forest: In a	1280	Experimental Farm, P.E.I.: Residence on	1213	Fair Queen	1393	Farm Home in the Cornwallis Valley, Nova Scotia: A	1931	Farmyard: In the	1401	Filipino Beef	1571	Fine Arts Palace, Japan-British Exhibition, London	1112	Fire Blight	1888, 1889	Flatt: W. D. J.	1351	Flavelle's Advice	1402(a)	Flocks: Two Beautiful	1559	Flora 90th at Two Years	1448	Flowers: A Tangle of	1406, 1570	Foam Tart and Coffee Cake	1783	Foxboro Cheese Factory	1353	From a Painting by Henry H. Parker	1954	Frost: Prepared to Ward Off	1213	Fruit and Nut Rolls	1571	Garden: A Japanese	1894	Garden in Argentina, South America	1893	Gardhouse: John	1449	Georgian Bay: Among the 30,000 Islands of	1961	Gibson: Richard	1137	Ginger Cakes: Plain	1571	Glenavon	1591	Goat: A Champion Male	1374	Golden Jolly Champion	1938	"Goops": The	1717	"Goops": Dressing Up Like	1717	Graduates of Our Schools: City or Country Life for Our	2078	Graham: Thomas A.	1698	Grain Warehouses at Buenos Aires	1402(c)	Hackney Character: A Study in	1927	Hackney Filly: Yearling	1772	Haines (Mr.) House, Meadowvale, Ont.	1148	Halstead: Royal Duke	1350	Hamilton: Chas. K.	1111	Hampshire Lambs: A Champion Pen of	1398	Hampshires at Royal Counties Show: Judging	1392	Haudan's Point: Showing Ferry Boats	1640	Happy With a Bone	1945	Harvest Scene: An Eastern	1945	Harvesting the Golden "Fruit"	1253	Harvesting Refreshments	1250	Harvest in a Six-foot Sturgeon	1817	Hawthorne: Nathaniel	1533	Hay Berriek	1103	Hay: Gathering in Suffolk, England	1398	Hay: Making on the Farm of James Armstrong, Emo, Ont.	1103	Haying on the New Brunswick Intervals	1701	Hayes Coronation 3rd	1195	Hereford Cow, Champion, Royal Show, England, 1910	2010	Hereford Steer	1925	Hoening His Own Row	1104	Hops: Picking	1858	Hops: Dressing in Oast House	1858	Hope: The Late John	1173	Horse: Front Legs of a	1883	Horse's Feet: The	1808	Horseshoeing Trial: Competitor at Work in	2003	House: An Attractive Small	1222	House: A Neat Cement Block	1211	House and Outbuildings on Dairy Farm of Frank Phillips	1635	House: Shows Simplicity and Dignity: This	1292	Household Conveniences in the Early Days	2042	Howell: Thomas	1742	Hudson	1627	In Harness	1114	In Mischief	1896	Invicta	1099	Invernia's Queen of Kirkfield	1702	"Island": View from the	1640	"I Want to See the Peat Reek Rise"	1947	Jacoba Irene	1936	Japan in London: A Bit of	1112	Jarvis West Cheese and Butter Factory	1399	Jean Armour	1742	Johnston: Arthur	1206	Johnstone: Ralph	1857	Jolly Little Dogs	1782	Judging Shire Mares and Filies at a Yorkshire Show	1946	Judging Stock at Some Leading American State Fairs: Provision for	1809	Kelso: In the Four-months-old Town of	1667	Kennel Express: The	1944	Kerry Cow: A Prizewinning	1101	King's Cupbearer	1627	Ladner: The Late Wm. H.	1485	Lancaster Bud at Two Years Old	1484	"Land of Brown Heath and Shaggy Wood"	1947	Layers: Winter House for	1942	Leicester: Border, Champion, Royal Show, 1910	1391	Leicesters: Prince Edward Island Flock of	1278	Lessons at the Fairs: Impressing	1775	Lincoln Ewe Lambs	2046	Lincoln Ram	1885	Lincoln Ram	1592	Lincoln Ram: Shearling	1486	Locust Lodge	1485	Lomond's Mysie	1674	Longfellow	1602	Looking Down at the Roadway from the Bridge, Rosedale	1245	Lord Stanley	1100	Louden Duke	1958	Love Letter: The	1638	Lowell: James Russell	1709	Lulworth Castle	1555	Lynn Gray	1389	Mack	1698	MacQueen	1569	Making Good Use of the Last Warm Days	1845	Mangels at Macdonald College	1773	Manure: Can We Afford to Pile in the Barnyard?	1885	Manure Spreader on a Peterborough Farm	1934	Maple-lined Lane on the Farm of Jos. Poole, Middlesex Co.	1851	Marchioness 19th	1663	Marchioness of Drummond	1393	Marigold Sailor	1460	Market Square and Cross: The	1393	Mayflower 3rd	1664	McCrae: David	1930	McCrae: Lt.-Col., Byron, Ont.	1360	Meadow Land in Nova Scotia: Breaking Up	1402(b)	Messenger: Mr. R. J.	1137	Mimulus	1857	Moisant: John B.	1316	Monexffel Lad	1360	Morgan: Wm. de	1139	Municipal Drain: Benefits of the	2047	Natoye De Kol 4th: Pure-bred Holstein Cow	1818	Nature: Man Conquering at Culbra	1707	Near to Nature's Heart	1701	New Brunswick Farm Home: A	1668	New Brunswick District: Farm Buildings in the	1667	New Liskeard District: A Snapshot in the	1668	New Liskeard Fair: Crowd at the	1699	New Liskeard Fair: Judging Horses at	1390	Norfolk's Exhibit at the Ontario Horticultural Exhibition, 1910	1849	Northern Spy: A	1355	Northern W.M.S. Canada: In	1951	Oats in Experimental Grounds, Morrisburg	1247	Object Lesson of Results: The	1775	Oke: Richard	2020	Old Harry Rocks, Swanage	1711	Old Lancaster	1394	Old Moot Hall, Near Bedford: The	1781	One Apiece	1961	Onions Stuffed with Nuts	1571	On the Log by the Creek	1461	Open Air: How to Live in the	1186	Orchard, Morrisburg, Ernest Farlinger's	1247	Orchards at Grimsby, Ont.: General View of	1402	Ormond Duke	1884	Oxford Down: First-prize Shearling and Champion Ewe of the Breed	1628	Oxford Down Ram, Toronto, 1910: Champion	1525	Parsons: Residence of J. J.	1402	Pastures Green: In	1952	Path Through the Meadows: The	1959	Peaches: Gathering	1562	Pennycress or Stinkweed: Field	1208	Peppers as a Commercial Crop	1776	Pettit: W. 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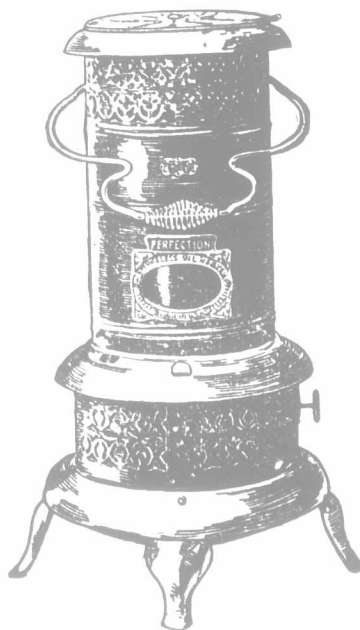
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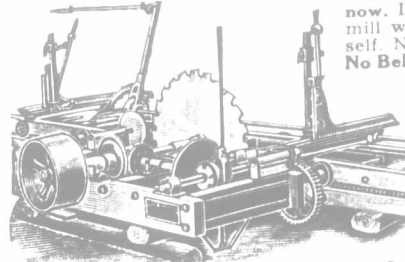
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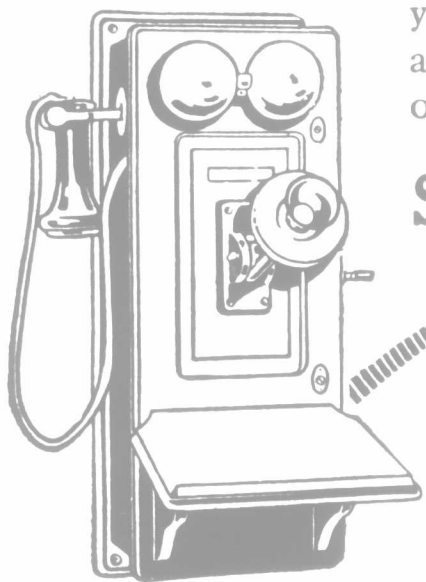
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