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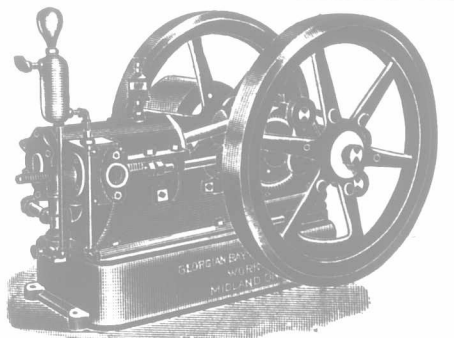
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### What One of Our Friends Says:

Midland, Aug. 2, 1905.

Georgian Bay Engineering Works.

Dear Sirs.—I would like to let you know that I am very much pleased with the 6-H.P. gasoline engine purchased of you last March. Indeed, I am proud of it for a good many reasons. Since it was set up in my shop I have given it a fair test, and I cannot speak of it too highly. It is very economical on gasoline, and the work it does for the amount of fuel used is a wonder. I believe the mechanical ignition is a never-failing device, and a feature that is sure to be appreciated by everyone who sees it, especially farmers and those who have been afraid of gasoline engines setting fire to buildings. I cannot begin to name the many points where I believe it to be superior to all other engines. It runs my Cowan's No. 5 planer and matcher, one 20-inch swing lathe, one 30-inch band saw, one emery grinder and one saw table with 16-inch saw. I will be glad to have any one call at my shop, and I am sure that they will be thoroughly convinced that the engine is No. 1 in every respect. Wishing you every success, I am,



Can We Not Interest You.

JAS. A. BENSON.

**Georgian Bay Engineering Works**  
MIDLAND, ONT.





# The Farmer's Advocate

## and Home Magazine

"Persevere and Succeed."

Established 1866.

Vol. XLI.

LONDON, ONTARIO, APRIL 12, 1906.

No. 707

### EDITORIAL.

#### Cheap Power for the People.

"From figures which I have been able to secure, I estimate that power can be developed at Niagara Falls for \$8.00 per horse-power. The figure would cover money expended in installation, in maintenance expenses, depreciation and interest on money invested, at, say, 4 to 5 per cent. Against this, steam power costs, on an average, \$28.00 per horse-power. The difference is \$20.00 per horse power, or a saving of \$10,000,000 to the Province."

The above statement, before a general meeting of the Toronto Board of Trade, by Hon. Adam Beck, Member of the Ontario Cabinet, and President of the Niagara Parks Commission and the Municipal Power Commission, conveys a graphic idea of the immense importance to Ontario of the Niagara-power question.

Further words of Mr. Beck's on the same occasion, indicate the absolute necessity of some Government enterprise or control to ensure that the benefits of this enormous natural energy may accrue to the people at large, and not to a few privileged capitalists.

"It cannot be contradicted that at present power is being sold at Niagara for \$12.00 a horse-power. It is to be brought to Toronto by the Electric Development Company, and sold in large units at \$35.00 to consumers. How is it that the cost of transmission is \$23.00 per horse-power? It is an unreasonable figure, and can only be accounted for by the belief that the interests of the three companies—the Electric Development, the Toronto Electric Light, and the Toronto & Niagara—have identical interests behind them, such as Sir Henry Pillatt, Frederick Nicholls, Senator Cox, and others. I cannot accept the statement that these companies are justified in charging \$35.00. I may say to them that it costs only \$5.00 for transmission, instead of \$23.00. But the price you are asked to pay is not what this power costs, but what these companies can get from you.

"Regarding the price of this power to the consumer, I believe the matter might well be left in the hands of our Provincial Legislature. The power companies are our tenants, and as such we should be able to regulate them."

The meaning of these facts—for there is no reason for doubt that they are facts—is of the utmost significance. The greatest handicap of industrial Ontario and Quebec has been high cost of coal, neither Province having any within her own borders. But here, tumbling over the Niagara escarpment alone, to say nothing of all the other waterfalls in the country, is water which Mr. Beck estimates sufficient to supply with cheap electric power 1,500,000 people; and this power, according to the report of the Municipal Power Commission, should be available for manufacturing purposes at \$15 to \$17 per horse-power, for 365 twenty-four hour days a year. Take the outside figure, \$17, and compare it with steam power at \$28—steam power, it is said, in many cases costs much more than \$28—and we still have a difference of \$11.00 per horse-power, which would be a splendid inducement for the investment of foreign capital, and a splendid advantage to Canadian industries in competition with the world; in every way more desirable than tariff increases, which some manufacturers have been clamoring for.

A furore has been raised about the destruction of the scenic beauty at the Falls, and if the whole profit of power development were to go into the pockets of promoters, and the electric energy developed sold at about the price of steam power,

so that no material advantage resulted to the Province, we would be justified in objecting to the perversion of this sublime wonder to the aggrandizement of capitalists. But if the price at which this power is sold may be regulated by the Government, and if the energy may be used to build up industries, lighten labor, cheapen illumination, extend transportation facilities and reduce the cost of them, then the public will have much to gain by a withdrawal of a portion of the water at the Falls. And Mr. Beck assures us that Canada has not been prodigal in letting franchises, and that the Government of Ontario, and, he believed, also the Government of Canada, would never consent to any steps which would deplete the waters of the great cataract. The State of New York has granted power franchises, without demanding a limit to the amount of water that shall be used; but our policy has been more discreet.

While there can be no two opinions as to the advisability of Government intervention to secure cheap power for the public, there is a question as to whether the Government should generate the power, or merely buy it from the companies and distribute it throughout the country. It has been gathered from Mr. Beck's utterances that he favored the latter plan, but it is understood, at date of writing, that the Ontario Municipal Power Commission, which gives in detail the result of the examinations by electrical and hydraulic engineers, contractors and accountants, urges the construction of a power plant and transmission line by the Government, and on its careful estimates was based the conclusion that power for manufacturing purposes could be supplied for \$17.00 per horse-power per year. Following are the calculations of the Commission:

Cost of development, transmission and distribution of 30,000 horse-power, \$6,684,000.

Cost of same for 60,000 horse-power, \$9,354,000.

Cost of same for 100,000 horse-power, \$11,909,000.

It was also found by the Commissioners that it would be possible to effect a reduction of at least twenty-five per cent. in house-lighting.

The last contract made by the City of Toronto for arc lamps was at the rate of about \$65.00 per year per lamp. The Commission found that arc lamps could be provided for about \$40 a year.

The Commission also estimated that there would be a saving of \$1,850,000 each year to the municipalities interested.

Whether the Government undertakes development and transmission, or transmission merely, some jealous interests will have to be dealt with, as between nearby and distant points, but if a careful estimate of the cost of transmission be made, and the charge at different points fixed accordingly, there should be no cause for complaint.

One thing we shall expect to be safeguarded is the rights of farmers who may in future desire electricity for lighting, and who knows how long it will be before we want it to run stationary farm machinery? Cheap power to the cities and towns, and to electric railway companies, will mean much indirectly to farmers, but the time will come when it will be directly utilized on the farms, and the Province should see to it that the power is then available to us at rock-bottom prices.

Even the Dominion Government has taken a hand in this question, by formulating a federal policy to guide them in dealing with applications to export electric power. Right to export will only be granted subject to revocation at short notice, there to be no claim against Federal or Provincial Government arising out of such revoca-

tion, and the companies to be subject always to such rules and regulations as the Government sees fit to impose. The revocation of right to export, it is understood, is designed as a means of assuring that whenever power generated at Niagara is needed in Canada, it may be available to Canadians. Meantime, as Hon. Mr. Beck has pointed out, it would be an injustice to prohibit realization of profits by the enterprising capitalists who have invested between \$30,000,000 and \$40,000,000 in power development at Niagara Falls. "The Farmer's Advocate," however, fails to see why a small export duty might not very well be imposed on power, in order that we might derive a revenue from this natural resource.

One fact we should keep in mind. This water-power and all the other waterpowers in the country belong, or should belong, to the people of this country. They represent an asset bound to increase enormously in value as years go by. They are worth retaining control of to cheapen production, to increase the returns from labor in factory and on farm. With cheap power as an inducement, it should no longer be necessary for municipalities to offer manufactories bonuses, exemptions, etc., which, as everyone knows, come out of the taxpayer sooner or later. Our great natural resources, such as waterpower, are a means of making life in this country better worth living. We would have ourselves to blame if we gave away power privileges without taking care that every volt of energy be sold at the lowest possible rate and on fair terms to every prospective user.

#### Regulation of Express Rates.

A subject that has engaged earnest and frequent attention at annual meetings of horticultural and agricultural associations is the matter of express rates on fruit, vegetables, poultry, stock, and other farm produce. Especially important is it to the fruit and vegetable grower. Owing to its perishable nature, and, in some cases, also the instability of the market, most of the produce has to be forwarded by express, and transportation is about the heaviest toll in its marketing. For instance, the express rate on fruit from the Niagara District to Montreal is 80 cents per 100 pounds, and in periods of low prices the transportation amounts to a considerable proportion of the sales receipts. Not a few cases are on record where consignments have failed to realize express charges and consignee's commission. It is thus apparent how even a slight reduction in this schedule might widen the markets for fruit, and enhance returns to the producer sufficient to increase materially the profits of fruit-growing.

There are, at present, two large express companies participating in this fruit and vegetable trade in Canada, besides which are the American Express Co., operating on the Michigan Central Railroad, and a number of smaller companies operating on local or Provincial railroads. The two large companies referred to are the Canadian and the Dominion Express Companies, intimately related to the Grand Trunk and the Canadian Pacific Railroad Companies, respectively, though both operate on a number of other lines, notably the Canadian Express Company over the Intercolonial Railway, and the Dominion over various electric lines, such as the Hamilton, Grimsby and Beamsville, in the Niagara District. On account of the Canadian and Dominion Companies being virtually owned by or analogous with the principal railway companies over whose lines they operate, and on account, also, of the fact that, with a rare exception, one express company has exclusive privileges on any one railroad, the express business practically amounts to a monopoly, and there would seem to be especially good reasons



## 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.

LONDON (ENGLAND) OFFICE:

W. W. CHAPMAN, Agent, Mowbray House, Norfolk Street,  
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why it should be under the control of a power like the Railway Commission. A resolution asking the Government to place it under the purview of that body was passed at the recent Dominion Conference of Fruit-growers held in Ottawa last month, and a deputation subsequently urged it upon the Premier, Sir Wilfred Laurier. Sir Wilfred intimated his sympathy with their object, and could not recall why Hon. Mr. Blair had not included the express companies when the law establishing the Commission was framed. The Premier promised to bring the matter before his colleagues, and it is hoped the desired legislation will be passed before long, although he could not promise it positively this session, as asked by his interviewers.

Whether express rates are exorbitant or not, will be for the Railway Commission to determine. The companies point out that rates on fruit are much lower than on ordinary articles. The agents complain of trouble in handling, vexatious claims for loss and breakage, etc., and assert that the margin on fruit carriage is very small. On the other hand, they do not deny that the volume of business makes it a profitable one, and that it represents just so much extra business to them. It is hard to believe they are not making a pretty fair thing out of fruit and vegetable carriage. At any rate, Railway-commission surveillance can do no harm, and may do much good. In this connection, we may note a remark made to a member of "The Farmer's Advocate" staff in Ottawa, during the conference, by a prominent representative of the express companies. After having pointed out how reasonable express rates now are, he added, as a rider, that since freight rates had been under the control of the Railway Commission the average schedule had increased. Asked whether he thought a similar result would follow the placing of express rates under the same tender mercy, he implied an intimation that it was not unlikely. "Then you could have no objection to such regulation?" was asked—at which he hedged. At any rate, even if the Commission did not reduce rates, we want it as a court of redress, a means of preventing injustice, preventing extortion, reforming abuses, and, if possible, reducing rates. The confidence our Railway Commission enjoys from railway men like Sir Thomas Shaughnessy, is sufficient guarantee that it is not liable to do violence to the rights of the corporations, and there can be no excuse for not acceding to the request of the shipping public.

## Canada's Railway Commission.

(Special correspondence.)

Two years have elapsed since the Canadian Railway Commission, established by Parliament, at the instance of the Dominion Government, entered on its duties. There was much to be done in the early stage of the existence of the Board in the matter of establishing the new order of things, but the Commissioners have proved men of energy, and it is surprising how much they have accomplished for the public in the comparatively short time that has elapsed since the Railway Committee of the Privy Council gave place to the Board appointed under the Railway Act of 1903.

If any one had misgivings as to the improvement which could be effected by the reform, he must ere now have been convinced that the change is a most salutary one. The Railway Committee of the Privy Council was a body so circumstanced that it was not possible for it to give satisfaction, either to the shipping and general public and municipal authorities or to the railway interests. Its members were Cabinet Ministers, and, apart from the fact that they were open to the accusation of deciding cases according to their political aspect, they did not have the special training necessary to act in the capacity of judges

direction, over the same line, is greater for a shorter than a longer distance, unless the Commissioners are satisfied that, owing to competition, it is expedient to do so. Under the new system freight tariffs are governed by a classification which the Board must approve. The object is to have this classification uniform. When so directed by the Board, railways have to place any specified goods in any stated class, and tariffs must be in such form and give such details as the Board requires.

The Railway Commissioners have also the power to regulate and supervise the highways and railway crossings, to regulate and supervise the general construction of railways, and the construction and maintenance of railway bridges, drainage, fences, gates and cattle-guards, etc. Another important task assigned to the Board is the power to compel a railway to build a branch railway to any industry within six miles of the line, on the application of the owner, and upon terms. It can also regulate the speed of the trains, and when locomotive whistling becomes a nuisance, the Board has power to abate it. In carrying on its work, the Board of Railway Commissioners has the powers of a Superior Court, and those who disobey its commands, do so at their peril. The only appeal that can be taken from the finding of the Board on a question of fact, is to the Dominion Cabinet. On the question of jurisdiction there can be an appeal to the Supreme Court, if allowed by a judge of that body, after hearing of all parties. There may be an appeal to the Supreme Court on a question of law if the Board so decides.

### IMPORTANT DECISIONS ALREADY GIVEN.

The Railway Commissioners have rendered a number of important decisions; but all of their findings are of value to some interest in the Dominion. They have sat in public at Ottawa, Toronto, Montreal, Winnipeg, Vancouver, and many other places, to deal with issues arising in these localities, but very many matters have been adjusted between the railways and the public through the intervention of the Board without the necessity of a hearing. Indeed, one of the chief benefits accruing from the existence of the new tribunal is the publicity that is given to the results of their labors, and the knowledge that if there is any unjust arrangement in existence, whether to the public or to the railway company, it will form the subject of adjudication so soon as the attention of the Commissioners is directed to it. For the five months ending July 1st, 1904, the total applications heard were 66. In the same period 103 orders were issued. From 1st July, 1901, to 31st Dec., 1904, the total applications heard were 307, while in 1905 the total number was 156.

Some of the decisions given have been of the greatest importance and advantage to the public. Formerly the railways charged such rates as they chose, and there was no appeal from their tariffs. The large shippers were given decided advantages, and the man doing business in a small way was discriminated against. The Commissioners found that the Canadian railways were carrying flour at a lower rate than grain. They at once decreed that the raw material should be put on the same basis as the finished product. When the right to grant a special low rate on coal carried for manufacturers was claimed, the Commissioners decided that the allowance of a reduction in the freight rate of any article of merchandise to one class of shippers, and the refusal of the same to another class, is unjust discrimination, and is forbidden by law. The rates for the carriage of peas and beans has been fixed by the Commissioners to be the same as for grain products.

It was represented to the Commissioners that some roads were charging as much on cattle shipped from Toronto to Montreal as from Detroit to Montreal, United States cattle being thus discriminated in favor of. After enquiry, this practice was stopped. Another important decision was that affecting the carriage of telegraph poles, railway ties, etc. Formerly these were carried by special contract only. It was the interest of the railway companies that these ties should not leave the country, thereby decreasing the supply, and proportionately increasing the price, and the railways, through the imposition of



Hon. A. C. Killam

Chairman Board of Railway Commissioners.

and arbitrators in the numerous disputes brought before them, nor did they have the time to promptly take up and settle the grievances of the public or their servants, and the Committee, always sitting at Ottawa, often put complainants to much trouble and expense in presenting their grievances for adjudication. Moreover, the rule that complaints could only be taken up on formal application, often resulted to the disadvantage of the public.

These defects have been guarded against in the new measure, and, by travelling through the country, and holding sittings at central points, the Commissioners have made it comparatively easy for any one having business to do with them to present their claims.

### POWERS OF THE COMMISSION.

The Commission has absolute regulative powers in regard to rates, preferences, discriminations, rebates and special rates. All freight rates have to be submitted by the Companies to the Commissioners, who can approve or change them. Rates may be for the whole or any particular part of the line, but, under substantially similar circumstances, they must always be charged equally to all persons. No toll can be charged which unjustly discriminates between different localities. The Board has declined to approve any toll which, for like goods or passengers, carried under substantially similar conditions, in the same



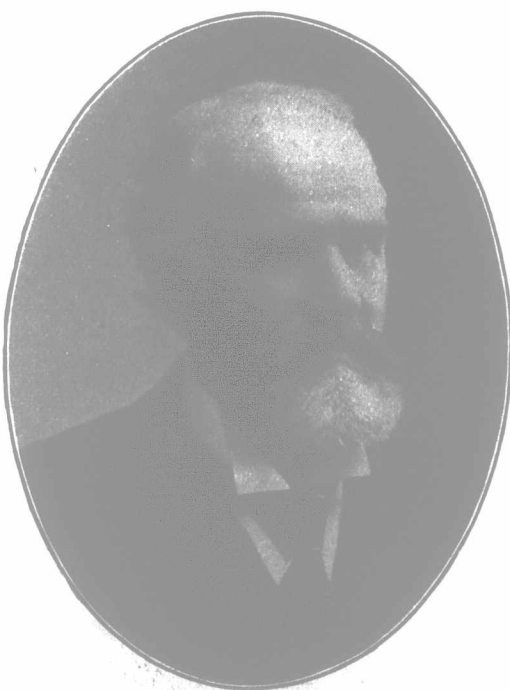
high classification, or tariffs, or car shortage, or by means of other excuses, made it very difficult for proprietors of wood-lots to profitably engage in the business. The Board heard the complaint, and ordered that this discrimination must cease. It was decided that common carriers, in making rates, cannot arrange them for an exclusive regard for their own interests, but must have respect to the interests of those who may have occasion to employ their services, and must subordinate their own interests to the rules of relative equality and justice. In like manner, the Board has done justice, as between the railways and the fruit-shippers, and in cases where manufacturers had unadjusted grievances. Then, as a result of the big harvest last year, and the attendant shortage of cars at many points, it was necessary for the Commissioners to deal with the complaint of Canadian grain and milling industries, that export grain was receiving preference over them in the assignment of cars. The Commission directed that a fair proportion of cars should be placed at the disposal of local shippers; and as this could only be regarded as a temporary relief for a ticklish situation, indicated that the Commissioners would go into the subject fully before the crop movement of the present year, so as to provide that justice shall be done all parties.

The Commission has not only settled many knotty disputes between the railways and the public, but it has frequently adjudicated disputes between rival companies, having an eye, of course, to fair play for the public at the same time. A typical case was the Stamford Junction dispute. In it the Commissioners held that the object of the Railway Act (Sections 177, 253, and 271) is to ensure that all reasonable and proper facilities for handling, forwarding and interchange of traffic shall be afforded to the shipping public. For this purpose, the Board may, without the sanction and against the will of a railway company, permit a junction to be made with its line by another railway, where, in the public interest, and in the interest of traffic in the district through which the railway passes, such is required. It was further held that the parties to a lease of a railway cannot by stipulation between themselves restrict the powers to exercise this discretion, if, in the opinion of the Board, such junction is reasonably necessary.

THE COMMISSIONERS.

The Commission is presided over by Hon. A. C. Killam, formerly one of the leading lawyers in Manitoba, and for many years Chief Justice of that Province. At the time of his appointment as chairman, Hon. Mr. Killam was a judge of the Supreme Court of Canada, to which he was called as eminently fitted to occupy a seat in the highest judicial body of the land. The portrait given herewith shows the Judge in his Supreme Court robes. He has proved an ideal chief. His wide experience and shrewd common sense eminently qualified him for the important duties of his office, and the Dominion Government was fortunate in being able to prevail upon him to forsake the Manitoba Bench for the onerous post he now holds. The other two Commissioners are Dr. James Mills and Hon. M. G. Bernier. Dr. Mills was for many years President of the Ontario Agricultural College, at Guelph, and the knowledge he acquired in that famous institution of learning has been of incalculable value to the Commission in dealing with the many questions coming before it that more particularly affect the agricultural interests. Hon. Mr. Bernier is a farmer, as well as a member of the legal profession, and when living at St. Hyacinthe, Que., where he was born and raised, he was for years selected by his friends and neighbors as President of the City and County Agricultural Association. In five successive general elections he was elected representative for St. Hyacinthe to the Dominion House of Commons, and, on the retirement of Sir Henri Joly to take the Lieutenant-Governorship of British Columbia, he was called to the Cabinet as Minister of Inland Revenue, which office he held till appointed a member of the Railway Commission. The chief Commissioner receives remuneration of \$10,000 a year, and his two associates \$8,000 a year each. The salaries were made purposely substantial, so that the best men available could be secured for the Board, and the tenure of office—ten years—was fixed with the

same object in view. No Commissioner can have a financial interest in any railway or its equipment. To assist them, the Commissioners have the services of an experienced railway man as traffic expert. By the agency of a qualified inspector, also, all railway accidents, and the causes of accidents, are now investigated. This much-needed reform has been carried out on the lines of the British law, and is calculated to be of much benefit. The Commission, even with all the disadvantages arising from the putting into force of a new and far-reaching law, has already proved of the greatest value to the public. At the same time, the Commissioners have done justice to the railway interests. The Commission and its work, indeed, is held up to United



Dr. James Mills, LL. D.

Member of Canada's Railway Commission.



Hon. M. E. Bernier.

Member of Canada's Railway Commission.

States legislators by the press of the neighboring Republic as a model of what their Federal Railway Commission ought to be when, as is strongly urged by President Roosevelt, Congress summons enough courage to emancipate itself from special "interests," and gives to the people a National Railway Commission that can be relied on to deal justly, as does the Canadian Board of Railway Commissioners, with all parties.

The Country was Knifed!

March was a record-breaker for premiums. We "knifed" the country from one end to the other. Did you get one? If not, you cannot afford to wait much longer, as they are going rapidly. It only takes one new subscriber to secure a knife. Surely you can do that much for yourself. Let's hear from you.

Government Regulation of Telephones.

The construction of independent rural telephone lines has made phenomenal strides in Canada the past two years. The thousands of miles of wire strung last year will probably be more than duplicated in 1906. Economically constructed and managed, they earn their promoters fair dividends, revolutionize rural life, and expedite rural ways of doing business. But trouble begins when long-distance connections are wanted, as the Bell monopoly in railway station is encountered. Foreseeing a rising storm, the Dominion Government undertakes, by an amendment to the Railway Act of 1903, introduced by Hon. Mr. Emerson, to combine efficient control with private ownership. It provides that railway companies must admit the instruments of any telephone company to their stations, and cannot set up any exclusive contract with some one company as an obstruction. This is to be retroactive. In the next place, complete control of telephone rates and service is to be placed under the Railway Commission. And, thirdly, interchange of traffic between all companies is to be made compulsory. The Bell Company must give connection with independent companies. As far as possible, this must be direct oral communication, but this is to be modified when the instruments of the smaller company are so inferior as to cause trouble. The Government have done well to realize that the people of this country will not tolerate the fastening of a restrictive monopoly upon its growing business.

HORSES.

If the colt's hoofs are not growing wide enough at the coronet, it will help them to apply a mild blister to stimulate growth.

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The real difference in value between a good and a poor stallion is not in the first cost, but don't let a high price convince you that the horse is really worth the figure.

Have the Exhibitions Perverted Our Type?

Editor "The Farmer's Advocate":

The question raised in "The Farmer's Advocate" of February 15th, in relation to the improvement in horse-breeding in Canada, is raised none too soon. There has been, and to a certain extent still is, such a great desire for what might be termed extremes in all lines of breeding, that the useful or dual-purpose horse, like the dual-purpose cow, is by the large breeders—and they are those who are controlling the thought, to a very great extent, of the small farmers—considered an impossibility or a freak. The exhibitions, largely controlled and supported by the larger breeders, have, to a great extent, aided in supporting the special-purpose idea, and the special purpose has been either extreme size, speed or action, without considering it possible that a happy medium might exist combining some of those three qualities, substance, of course, considered in everything.

You ask, should a farmer's principal aim be to produce a horse for his own use, or a horse for the market? In answer, I would say, to a great extent, it would depend upon the circumstances and locality of the farmer. If he is only raising one colt each year, he had better raise for the market, and raise the same as his neighbors are, if of a class in demand. If raising several colts each year, he had better have some for his own use.

The breed of horses that will give the best results, mated with the general run of mares, differs. In some localities the general run of mares are sired probably by Standard-bred stallions. In such instances, the use of an active, clean-boned Clydesdale would probably bring better results than any other. If, on the other hand, the general run of mares is Clydesdale grade, I have known instances and localities where the use of a good large Thoroughbred stallion produced the very highest class of useful and handsome animals. And, in fact, if you enquire into the breeding of some of those handsome and highly serviceable horses that do the express delivery in cities, you will find, in many instances, that the dam was a grade Clydesdale, and the sire either a Standard-bred or a Thoroughbred. Why a useful breed could not be obtained by a careful selection of horses, cross-bred as above, I have been unable to discover.

In my own observation, I think, among light breeds, that a well-developed Standard-bred will probably, in most instances, be the best. While very much has been written about the advantages of the Thoroughbred, yet, in one locality with which I am familiar, the offspring of the Thoroughbred from two different horses were almost



invariably unsound, in the one instance developing ringbone or fetterbone, the other sire's stock developing spavin. Probably ninety per cent. of the colts from each of these stallions were unsound at seven years old; the remaining ten per cent. were exceptionally good.

I would like to know the views of some others upon the Thoroughbred cross, as I am considering making a trial this season of a Thoroughbred stallion, yet would not like to take the responsibility of spoiling the horse stock of a locality if the Thoroughbred is inclined to breed unsoundness.

Concerning heavy horses, we have had experience with Percheron and Clydesdale, and, while the Percheron stallion that I owned was the kindest individual horse, yet his colts do not seem to have the snap or the constitution of the Clydesdale.

The colts of a good, clean-limbed Clydesdale, if he is active, will, in my humble opinion, be the best and most useful and salable horse a farmer can raise. There will always be a demand for such horses in the development of new farms and the increased delivery demand in cities.

Antigonishe Co., N. S. F. R. TROTTER.

### Prospects for Shire Horses.

As far as I can judge from all the varied information which comes under my notice, writes Sir P. Albert Muntz, in the London Live-stock Journal, the Shire-horse trade has never possessed more vitality or had better prospects in the future than it has at the present moment. I base my opinion, firstly, upon the public sales that have recently taken place, where the average prices have been higher than they have been in previous years. These are, of course, practically confined to animals for breeding purposes. Secondly, I turn my attention to working animals, and I find that good sound working animals have never been scarcer or commanded better prices than they do at present. Thirdly, the foreign demand was brisker last year than it has been for many years past, and at the present moment is decidedly active, and looks as if several great countries, in which the demand might be almost unlimited, have woken up to the undoubted superiority of the Shire over any other draft horse, and might create a boom that would tax the resources of Shire-horse breeders to the uttermost. As I have so often stated, by speech and writing, the real foundation upon which Shire-horse breeding must be durably built is the supply of good sound, weighty working animals that will compare favorably with any other breed, either at home or abroad. All that Shire horse-breeders have to do is to keep that object steadily in view, and by that means, there is no reason why they should not, with intelligence and perseverance, secure a practical monopoly for the Shire breed of the principal draft-horse work of the world.

I attach little or no importance to motor-power as a substitute for Shires, and, in confirmation of my view upon this subject, I find that large brewers and others, who had adopted motor-power on trial, are discarding it in favor of the poor old Shire, as more economical and more efficient.

### Clipping Promotes Comfort and Thrift.

The clipping of horses in spring is a practice to which a large number of people have been obliged to reconcile their judgment. Irrational though it seems to deprive a horse suddenly of this natural protection at a season when human beings are most susceptible to weather vicissitudes, and when expert medical authorities warn unanimously against discontinuance of winter clothing, the fact stands out that clipped horses are less subject to colds and such affections, thrive better, and, if properly blanketed, appear to suffer less discomfort than their unclipped mates. A clipped horse dries out rapidly after a hard day's work, and will rest comfortably and be refreshed for the work the following day. An unclipped horse is liable to catch the heaves, pneumonia and all sorts of colds, rheumatism, etc. More especially is this so in the early spring, when the hair is long and he is "soft." If worked hard he will perspire freely, and the moisture will be held by his long hair, and the food that should go to nourish him will be used to replenish the heat that is being constantly taken from his body by the mass of cold, wet hair. If clipped, the perspiration will evaporate almost as soon as secreted, and, when put in the stable, he rests comfortably, and his food does him good.

Some years ago the Buffalo Street Car Company tested the value of clipping in the following manner: They owned 500 horses, and 250 of these were clipped early in the spring, and 250 were not clipped. A careful record was kept of the results, and it was found that of the 250 unclipped horses 153 were afflicted with coughs and pneumonia, while of the 250 clipped, not one case of sickness was reported.

### Blind Staggers.

The Florida Experiment Station is responsible for the following bulletin, by C. F. Dawson, State Veterinarian:

Forage poisoning, otherwise known under the names cerebro-spinal meningitis, grass staggers, or blind staggers, is a disease, as the name indicates, caused by poisonous plants, or, more strictly speaking, by diseased forage, such as fermenting grains and hay, or by grasses which have matted together near the ground and become mouldy. Sour or mouldy silage has also produced the disease, as has also stagnant pond water in which vegetation is decomposing. Mouldy or worm-eaten corn has also come in for its share of blame as a cause. It affects horses and mules of all ages alike.

The symptoms are as variable as the cause, and, according to their nature, we recognize three types of disease. In the first type—the most rapidly fatal—there occurs a weak, staggering gait, partial or complete paralysis of the throat, blindness, twitching of the muscles, and no fever, as a rule. The animal soon goes down, becomes delirious, and goes through the movements of walking, trotting or running while on its side. This stage is soon succeeded by deep coma, and the animal quietly expires in a few hours from the onset of the disease. The second type is first manifested by slowness in chewing, partial inability to swallow, and weakness in the tail. There is no pain or fever. The breathing and pulse are about normal, and a slight constipation exists. In two or three days the animal recovers, or all the foregoing symptoms are increased in severity. The throat paralysis is complete, the gait uncertain, coma or sleepiness appears, the pulse is weak and slow, the breathing



A Good Type of the English Shire Horse.

is labored. Delirium now develops, the animal goes down, the spine becomes rigid, and there is cramping of the neck and jaws. Death occurs in about a week or ten days in these cases.

In the third, or mild, type, the control of the limbs and tail is only slightly affected, and the ability to swallow is not lost. There is no fever, pain, or unconscious movements, and the animal shows improvement in four or five days, ultimately recovering.

In some cases of the disease, spinal paralysis is the most prominent symptom, while in others it may be difficultly in swallowing that attracts most attention. In all cases, if sleepiness or coma remain absent for a week, the animal will likely recover; but some form of paralysis may show for a while.

According to the symptom do we find departures from the normal condition in the brain and spinal cord. In mild cases there are no notable changes in the nervous system. In others we note considerable liquid in the brain and spinal cord cavities, and distention of the blood vessels. In the severest cases the brain and spinal cord will appear softened, and even abscesses may be found.

The object of this article is only to call attention to the causes of this disease, so that owners will be more careful to provide their animals with pure food and drinking water.

[Note.—No treatment is given, presumably for the reason that it should be attempted only by a most expert veterinarian.—Editor.]

### Likes It Better Every Week.

I like "The Farmer's Advocate" better every week, and believe it to be the best agricultural paper in Canada. Success.

Prince Co., P. E. I. COLIN C. CRAIG.

## LIVE STOCK.

### Our Scottish Letter.

Since I last wrote there has been a further evidence of the extraordinary boom in Shorthorn cattle. At the Birmingham sale, the South Americans were again active, and prices ruled high; 850 gs., or \$4,462, was the highest figure, but others were 750 gs., 450 gs., 400 gs., 380 gs., and 200 gs. The Scots type was again the favorite, the highest-priced bull having been bred by Mr. James Durno. It is said that one Aberdeenshire tenant-farmer has this year got as much for his bull calves as would enable him to purchase his farm outright. Unfortunately, our land laws do not enable a farmer to do anything of this kind, but perhaps before long this may be altered, and the man who is able to buy may be put into a position to negotiate for purchase with the man who is meantime very anxious to sell, but cannot, as the law stands, do so.

Connected with the breeding of cattle, we are having rather lively times over the proposal to amend the Cattle Diseases Act of 1896, in favor of Canada. Mr. Cairns, one of the members for Newcastle-on-Tyne, has put down a bill for second reading on Friday, April 6th, the contents of which are calculated to embarrass the Government, some of the members of which rather trifled with the subject when in opposition. Meantime, Lord Carrington has been inundated with petitions and deputations, and has given a very broad hint to all and sundry that the Government is to be guided by its veterinary experts, and will decide the question solely from the standpoint of what may be necessary for the protection of herds and flocks in this country from disease. The deputation in favor of the maintenance of the status quo was one of the largest ever seen within the precincts of Westminster, and it was wholly agricultural. Meantime, representative meetings in favor of maintaining the status quo have been held in Perth, Aberdeen, Stirling and other centers in Scotland. The English farmers, with the exception of a section in Norfolk, are unanimous in their opposition to Mr. Cairns' bill. It receives some support in Scotland from farmers in Fife, Forfar, Aberdeen, Kincardine, Perth and East Lothian. Otherwise, Scotland is as solid against the bill as England. Mr. Duthie, Mr. Gordon of Newton, and the other leaders in the Shorthorn world, are active in opposition to any alteration of the existing law. The attitude is, "We know where we are; we do not know where we might be if the law were changed."

The impression here is that the Board of Agriculture is firm in its resolution to maintain the status quo, but that Lord Carrington has some difficulty in finding a way out for a few of his colleagues who committed themselves somewhat to another course when seeking the suffrages of the electors.

The present Government, or rather Parliament, is proving itself very active in the fathering of legislative proposals of a radical nature, as affecting land. A Land Tenure Bill has passed the second reading, containing somewhat drastic proposals for the protection of the interest of the tenant-farmer in the soil. It contains proposals so drastic in their nature, that even gentlemen who are not usually easily alarmed, have their doubts about their propriety. One proposal is that a tenant may convert his holding into a market garden without the consent of his landlord, and, at the end of his occupancy, claim compensation because what he has done is an improvement, enhancing the value of the holding to a successor. There are also proposals guaranteeing the tenant against disturbance, and entitling him to compensation should he be put out of his holding before he has reaped the reward of his labors. It is also proposed that the tenant should be allowed to kill down ground game without restriction, and should be compensated for damage done to crop by game which he is not allowed to kill. All this is new, and its assertion indicates health and vigor in the new Parliament. Whether this legislation will come to fruition, is quite another matter.

Sir Edward Strachey, who represents the Board of Agriculture in the House of Commons, has introduced a bill to repeal, and re-enact in a better and much more workable form, the Fertilizers and Feeding Stuffs Act of 1893. This Act was it was not drafted with a better regard to the penalties attaching to breach of warranty in the sale of either fertilizers or feeding stuffs were sufficiently heavy, but the machinery by which the law is put in motion is slow and cumbersome, with the result that prosecutions under the Act proposed that official samplers be appointed, where, just as at present officers take samples of milk and other articles of food, in the most uncircumstances. The presence of goods to be regarded as a warranty, so that when any man certifies in the invoice that he has sent one thing,



he will be liable to prosecution should he send something else. There is nothing in all this to harm the honest trader. He can view with equanimity all legislative efforts of this kind. They do not affect him, and they certainly protect him against the competition of his unscrupulous neighbors.

Clydesdales are being exported to Canada in great numbers. A week ago fifty head of well-bred fillies and four colts were shipped per the Donaldson Line to Messrs. Prouse & Innes, Woodstock, Ont., by Mr. Taylor, Park Mains, Renfrew; and to-day, Mr. John Vance, from Tavistock, Ont., has sailed with twenty-seven fillies, purchased in the Mochrum district of Wigtownshire, whence Mr. Vance's father sailed to Canada many years ago. The shipment of Prouse & Innes has never been excelled in point of merit, and included in it are quite a number of animals which have won leading prizes in our shows. They are also exceptionally well bred, and are bound to be a big acquisition to the Clydesdale stock of Canada. Vance has secured his lot in a district famous for about a century as one of the best horse-breeding areas in Scotland. The selections have been made by Mr. Vance direct from the breeders, and he is likely to have a good demand for his stock when he reaches home. At the Aberdeen Show, ten days ago, there was a remarkably good display of young stock, the greater proportion of which were got by the celebrated champion horse, Everlasting 11331, owned by Messrs. A. & W. Montgomery. Not for many years has so fine a display of really choice young horses and mares been seen in Aberdeen. The winning yearlings of both sexes were nearly all got by Everlasting, and this great horse, which won first at the H. & A. S. Shows three years in succession, seems likely to prove the most popular of all the sons of Baron's Pride in the breeding stud, as he has been in the show-ring. Another horse whose stock are doing well is Marmion, owned by Mr. Robert Park, Brunstane, Portobello.

We had a great show of Hackneys at London in the first week in March, and quite a large proportion of the prizes came north. The championship for the best group of three horses or mares in harness was won by Mr. W. Scott's Mathias, a very fine horse, whose dam was the champion mare, Ophelia, one of the very best mares ever seen at London, and certainly by far the best living and breeding mare in the Hackney breed to-day. Mathias was represented by four or five phenomenal harness horses. Menella, the champion harness animal of either sex, is owned by Mr. Scott, at Thomkome, Carlisle, Lanarkshire. She moves in a fashion almost unparalleled. Others got by him, and all brought out by Mr. Scott, were, Radiant, the first foal ever got by Mathias in Scotland; Bryony, which last year was sold for over £600 by public auction; Gay Mathias, a four-year-old horse which promises to break many records; and quite a number of others. The champion stallion, Diplomatist, is also owned in Scotland, by Mr. Iain Ramsay, of Kildalton. He was sold for £1,000, to go to Holland. Another Scots-bred female, Boquhan Sunrise, won the female junior championship. Altogether, it was a big day for Scotland.

"SCOTLAND YET."

### The Bacon Hog Again.

Editor "The Farmer's Advocate":

The champions of the long lean hog (who a few years ago were filling the agricultural journals with the cry, "Buy, and buy only, the long hog. Never mind the other fellow's corns; let him cry out if he won't join in; he is a back number, anyway. Cut his hogs out of all prize-lists if possible, or get judges that will favor us every time. Instruct Institute speakers to give him a kick whenever possible") are finding out that "the worm when trodden on may turn." Whose corns are being pinched now? I noticed a letter in one of your late issues, "What kind of hog should we raise?" and the answer given, "Why, the long, lean hog, of course,"—as if that should settle the question for all time. Well, let that gentleman raise them; no one objects.

I see in your issue of March 22nd, D. C. Flatt takes Mr. Harding to task for stating that the Chester White hog will make bacon easier and cheaper than the long, lean hog, in which statement Mr. R. Clarke, a breeder of Chester Whites for many years, also concurs; and which, allow me to say, I endorse. I think, without any egotism, that I know the feeling of as large a section of the country as any one farmer, and state that the long, lean-hog boom has been exploded. "He went up like a rocket, and came down like a stone." As this is probably the last time that I shall trouble you on the hog question, allow me to add a word with regard to the real value of our bacon exports. It is pointed out that many millions of dollars are brought into the country through sales of bacon. Does it never occur that our grain sales have correspondingly decreased?—for out of grain, and that only, can all these hogs be fitted. It costs—I speak from first-hand experience of 35 years—from \$4.50 to \$5.25 per cwt. (according to the prices of

grain) to make bacon out of various classes of hogs, so that there is not such a mint of money in the business after all; unless the prices paid for pork will more than compensate for the grain fed, time expended, etc. R. L. HOLDSWORTH, Northumberland Co., Ont.

### A Study of Breeds of Swine.

#### HAMPSHIRE'S.

The Hampshire, until recently known as the "Thin-Rind," is the latest addition to the recognized pure breeds of swine in the United States, the American Thin-Rind Record Association not being organized until 1893, with about a dozen herds eligible for registration. According to the Secretary of the Association, the Hampshire traces to hogs brought from Hampshire, England, and hence the origin of their name. The name "Thin-Rind" was discarded and the name Hampshire adopted in 1904. The breed, as now known, originated in Kentucky, and the original hogs from which it sprung were taken to Kentucky from the Eastern States in 1835. Being a new breed, the Hampshire is not, as yet, very generally known, and there are no breeders of Hampshires in Canada.

According to Hon. H. F. Work, secretary of the Association, the general characteristics of the breed are: Head small; ears medium length, and slightly inclined forward; light jowl; broad back, of nearly uniform width, slightly arched; heavy hams; standing very erect on feet, with legs set well apart; active and muscular, denoting great carrying capacity, and devoid of excess of bone, jowl or belly.

According to some of its admirers, the Hampshire is of approved bacon type, but it will be seen that, with the exception of the head, jowl and belly, the above description does not very well accord with what is recognized as bacon type in Canada. There is no doubt, however, that the Hampshire is a useful hog in the United States, being active, hardy, thrifty and prolific, though the claim that they excel all other breeds in these respects must be accepted with a good deal of reservation. Mr. Work states: "In color, they



Hampshire or Thin-Rind Hogs.

In first-prize herd of Hampshires, at St. Louis Exposition, 1904.

are either listed or blacks, the most fashionable color consisting of black extremities, with a white belt from four to twelve inches wide, encircling the body and including the fore legs, which should also be white." The term listed means that the white belt is present. Among the disqualifications named in the standard of perfection for the breed is, "Color: spotted, or more than two-thirds white."

#### VICTORIAS.

Two American breeds of white swine bear the name of Victoria. One of these breeds originated in New York, and the other in Indiana. The Indiana breed has apparently made more progress than the other, and its interests are looked after by an association. It is claimed that four breeds were used in producing the Victorias, viz., the Berkshire, Poland-China, Chester White and Suffolk. They are not very widely distributed, though they are given classes at a number of State and County fairs. Very few representatives of this breed have been taken into Canada.

#### CHESHIRE'S.

The Cheshire breed of hogs had its origin in New York State, and was formed by crossing the Large Yorkshire and Suffolk upon the white hogs in the locality where they originated. Cheshires are bred principally in the Eastern States, but do not seem to be able to secure a place in the front ranks of American swine. Cheshires are a white breed, conforming, like the Victorias, to the fat type. They are a hardy, vigorous breed, and appear to be well adapted to the conditions prevailing in the Eastern States.

In the preparation of this series of articles on the principal breeds of swine, of which this is the last, we have been indebted to Prof. Thos. Shaw's excellent book, entitled, "A Study of Breeds," and to Prof. G. E. Day's very useful new book on swine, from which liberal extracts have been made.

### The Economics of Beef Production.

Average production, average ability, average returns! Is the farmer a man of averages? The gospel of averages is circulated so widely in statistics, tables, reports, bulletins, that there is the breath of a challenge always in the air to meet the vendor of averages with a product that will shame him into silence. Intensive methods of cropping and of practice appeal to the farmer who thinks. Intensive methods alone can yield him a maximum return from his unit of capital, the acre. A discussion of these methods constitutes the economics of agriculture. A discussion of these methods, in their relation to the subject of cattle-feeding, constitutes the economics of beef production.

Exclusive grain farming in Ontario is no longer a dividend-paying business. No method of crop rotation or of soil cultivation will ever be able to preserve the fertility and productiveness of soil that is being depleted, year by year, of its plant-food elements through the sale of the crops off the farm. The supply of available plant food is not inexhaustible, and, as with reserve capital, repeated withdrawals leave the credit less. But, further, we hold it as a fact that exclusive grain farming is not the most intensive method of cropping practice or of farm management. In marketable products of matured cereals and legumes, an acre of land will yield smaller returns than it can be made to yield by skillful manipulation in the raising of root, silage and the other fodder crops for beef production. An acre of ordinarily good land may reasonably be depended upon to yield 28 bushels of wheat, 55 of oats, 25 of peas, 600 bushels of roots—mangels or turnips—or 15 tons of silage. Estimating wheat at 75c. per bushel, oats at 34c., peas at 60c., roots at 6c. per bushel, and silage at \$2.50 a ton, we have a return from the acre of land of \$21.00, \$18.70, \$15.00, \$36.00 and \$37.50 for these respective crops. Granted that the cost of labor in cultivating and harvesting materially lessens the marginal profits from root and silage crops, unquestionably the margin is still large enough to merit consideration. Further, returns from one acre of soiling crops in milk and butter production have been made to equal the returns from two or three acres of pasture. Partial soiling is a practice that may profitably be more generally adopted, and it relates itself well to intensive farming methods. Maximum returns from one acre of land—that must be our motto and watchword.

Contrasted with the grain farmer, stock-raising suggests the man who invests his money at compound interest. Improved fertility, through the return to the land of the manure from the stables, assures an increased income and yields promise of an addition to the capital account. Certain countries are particularly and perhaps solely adapted to the raising of grains and vegetable products. A large part of our country is primarily adapted to stock-raising, and responds less grudgingly to the farmer's toil when vegetable products are converted into meat on the farm. The world is slowly but surely being educated to more general meat consumption. China, Japan, even Great Britain, Germany and the United States are consuming more of meat products every year. Moderate meat consumption in the temperate zones relates itself naturally to existing climatic conditions, preserves the strength and sustains the vitality in bodily and mental exertion, and promotes vigorous, full-blooded, physical existence. Under the tropical sun the vegetarian's diet may be the more healthful one, but whenever the north wind blows, the temper of the citizen demands sterner nourishment. The business of beef-making in Canada is safeguarded by the economy of reason.

In beef production there is one safe point of departure, viz., the conversion of our farm-grown cereal and vegetable products into beef at reasonable market prices. To do this assures a living and marks the level of average achievement. The safety of this proposition lies in the fact that we reap a paying dividend in the harvest from the land, and maintain the soil fertility through the application of the farm manure, thus assuring an equal dividend for the coming year. We grant that it may cost more to produce a pound of beef on a market steer than can be realized for it when sold, but every pound of flesh added in finishing a steer enhances the whole value of the carcass. To illustrate: A 1,200-lb. steer is bought for 4½c. a lb., is fed for four months, gains 200 lbs., and is sold for 5½c. a lb. The steer costs originally \$51; the gain in weight, at 8c. a lb., costs \$16; the total cost is, therefore, \$67, and he is sold for \$73. The actual gain in weight costs 8c. a lb., and we receive only 5½c. a lb. for it; but for the 1,200 lbs., original weight, for which we paid 4½c. a lb., we now receive 5½c., and we realize on the transaction a profit of \$6.50. Thus, upon the increase in value of the original carcass, or upon the margin between buying and selling price, depends the profit in feeding cattle. The ability, then, to buy well and to sell well, and a thorough knowledge of the market, are indispensable qualifications of the successful cattle-feeder.

Another feature merits attention—that touching the cost of gain. Eight cents a pound is usually considered an average of cost. To illustrate that better than this can be done, may I cite two tests which have come under my notice. One lot of four steers, fed loose, weighing at beginning of test 1,200 lbs. each, during a period of 60 days, ate, besides roughness, an average of 7 1-3 lbs. of mixed meal per day, gained 2 1-3 lbs. a day each, at a cost per lb. gain during period of 6.34 cents. Another lot of seven, stall-fed, weighing at beginning 1,000 lbs. each, during a period of 28



days, ate, besides roughness, an average of 7 lbs. of meal a day, made an average gain of 80 lbs. each, or 2.85 lbs. per day, and at a cost of 5.26 cents per pound gain during period. These are good gains at a minimum cost, and there is encouragement in the statement of them.

Most interest attaches probably to a discussion of the feeding of market bullocks. It were better that a more intense interest be stimulated in the feeding of younger cattle. An animal can never be fed so cheaply as during the growing period. A growing calf will gain more per day than a fattening steer, and during the first year of his life will make a pound of gain at one-third the cost of a pound increase during his third year. Moreover, the less time it takes to make a steer reach market weight the less will be the cost of his keep, and the greater the profit in his sale. It costs so much every day simply to sustain life, and the fewer days we have to feed a steer to make him reach his weight limit, the greater will be the saving in the cost of his total maintenance. If we can feed a steer up to 1,400 lbs. at two years, as contrasted with another taking three years to reach that weight, we have saved the cost of his maintenance for a full year, an amount unquestionably equal to about \$12 or \$15. As we are arguing for intensive methods in agriculture, so we must advocate intensive methods in beef production. The farmer cannot afford to feed a maintenance ration to his calves and young cattle. He cannot afford to take three years to fatten and finish a bullock when he might do it in two. He cannot afford to let another man reap the profit of finishing a steer that he himself has raised. There is a profit in the intelligent feeding of growing cattle; there is profit in the finishing of carefully-selected feeders; there is double profit to him who raises and finishes his own cattle. There are problems arising out of this proposition of baby-beef production, but space prohibits a discussion of them now. It is the hope that this article may be suggestive of thought as touching the logic of the situation of the cattle industry in Canada.

H. S. ARKELL.

Ontario Agricultural College.

## THE FARM.

### A New Brunswick Agricultural Society's Experience in Purchase and Home-mixing of Fertilizers.

Editor "The Farmer's Advocate":

Some twenty years ago my father, D. P. Wetmore, then secretary of our Agricultural Society, started the idea of getting fertilizers in raw state and mixing at home, on the recommendation of a prominent farmer near New York, who had been using them in that manner, and had found them something cheaper, and invariably to give satisfaction. Our Agricultural Society at that time got only a few tons, but the demand gradually increased, until we now handle over 100 tons each season. The farms are small here, and the members who use fertilizers vary in their purchases from about 500 pounds for the smallest, to 7 tons for the largest purchaser. We found that the potash salts and nitrates and phosphates were uniformly of same quality, and gave best of satisfaction every year. It was very rare, indeed, that a complaint came from any member.

We obtain the nitrogen in the form of nitrate of soda, and sulphate ammonia and potash in the form of muriate of potash and sulphate potash, and phosphoric acid in the form of bone black. We have had acid-rock phosphate, but it did not give so good satisfaction as the dissolved bone black.

In making up our composition, we knew the percentage of nitrogen, potash, phosphoric acid, we had was as below:

- Nitrate soda, 15 per cent. nitrogen.
- Sulphate of ammonia, 25 per cent. ammonia, equal to 19 to 20 per cent. nitrogen.
- Muriate of potash, 60 per cent. pure potash.
- Sulphate of potash, 60 per cent. pure potash.
- Dissolved bone black, 15 to 18 per cent. soluble phosphoric acid.

For potatoes, we would make a mixture fairly strong in potash, and also fairly strong in nitrogen. For strawberries and small fruits, we would use a mixture quite strong in potash and rather weak in nitrogen, and containing a fair supply of phosphoric acid. As an illustration:

#### No. 1, for Berries—

- 50 lbs. bone black, containing 15 to 18 per cent. phosphoric acid, making 8 to 9 per cent. phosphoric acid in the mixed fertilizer.
- 12 lbs. nitrate soda, containing 15 per cent. nitrogen, making 2 per cent. nitrogen.
- 20 lbs. muriate or sulphate of potash, containing 60 per cent. potash, making 12 per cent. potash.
- 18 lbs. land plaster, to make mixture more easily handled.

100

#### No. 2, for Grass, Cabbages and Oats—

- 45 lbs. bone black, containing 15 to 18 per cent. phosphoric acid, making 7 to 8 per cent. phosphoric acid in the mixed fertilizer.
- 24 lbs. nitrate soda, containing 15 per cent. nitrogen, making 3 to 4 per cent. nitrogen.
- 12 lbs. muriate of potash, containing 60 per cent. potash, making 6 to 7 per cent. potash.
- 19 lbs. plaster.

100

#### No. 3, for Potatoes, Turnips, and General Vegetables—

- 50 lbs. bone black, containing 15 to 18 per cent. phosphoric acid, making 8 to 9 per cent. phosphoric acid in the mixed fertilizer.
- 15 lbs. sulphate of ammonia, containing 20 per cent. nitrogen, making 3 to 4 per cent. nitrogen.
- 12 lbs. sulphate of potash, containing 60 per cent. potash, making 6 to 7 per cent. potash.
- 23 lbs. land plaster.

100

We have found the above to give general satisfaction. Of course, the proportions are changed sometimes to suit condition of land. For potatoes, about 1,200 lbs., as above, will give an excellent crop of potatoes, without any manure whatever. Of course, a great many of our members use the fertilizer in connection with the barn manure. In my own case, I have used fertilizers alone on mostly all kinds of crops. On strawberries I use about 1,500 pounds to the acre, applied in the spring as soon as uncovered, and have had excellent returns, without any barn manure whatever. The past season I raised sugar beets (feeding) at the rate of 950 bushels to the acre, with an application of fertilizer same as we use for potatoes, with 19 pounds nitrate of soda substituted for 15 pounds sulphate ammonia. I raised cabbages the past season to weigh nearly twenty pounds to the trimmed head, with nothing but the fertilizer (No. 2 mixture, as above), at about 1,400 lbs. to the acre. Have had the best grade of winter cabbages for some years on the St John, N. B., market, and have never grown on anything except these fertilizers. I have found no difficulty in growing any crop with the fertilizers. Of course, one has to be a little cautious with tender seeds, such as peas and beans, and not get too close to seed when sprouting. There is no trouble whatever getting 200 bushels of potatoes or more in a fair season from an application of 1,200 pounds to the acre. In good seasons it will do much better. After properly cultivating and using fertilizers, there is no trouble getting a catch of clover in seeding, and the clover supplies the humus in case no barn manure is available. There is no difficulty with a proper rotation in keeping a place improving each year without barn manure. Some parties may say that it is impossible to mix at home thoroughly, but we find no trouble whatever. We riddle the potash salts and nitrates through a wire riddle with about a quarter-inch mesh, and crush the lumps with wooden mallet; or, if one has a good stiff, solid shoe on, it can be done about as easily that way. We then spread the bone black thinly upon the floor, and spread the nitrates and potash salts evenly over it, and then thoroughly shovel over and finish with a steel garden rake, and, if thought necessary, the whole might be put through a riddle, but generally the raking twice over will be satisfactory. It will not cost more than from 50c. to \$1.00 per ton to mix, and we never see any difference in the different parts of the field, so it must be pretty evenly distributed. Of course, the ingredients could be put on the land separately, but some of the quantities would be so small that it would be hard to distribute. It is not necessary to put the land plaster in the mixtures, but it makes rather more bulk to sow, and keeps the fertilizer from baking after mixing. If mixed and used right away, there is no need of it.

Our reasons for getting fertilizers in this way are, that the fertilizer firms do not sell in small quantities, and we think by so doing we get the best that can be had, and each member knows just what he is getting. We weigh the ingredients, and each member mixes for himself at home. We also find that they give the best of satisfaction all the time, and will give a third to a half more yield than ready-mixed fertilizers supposed to be about same grade, and in some cases will nearly double. Price at present is not very much less than ready-mixed fertilizer, as nitrates are so very high, but at times we have been able to sell to members of Society at \$5 to \$6 a ton less than goods with the same analysis ready-mixed.

Personally, I have tried these fertilizers on almost every crop without barn manure, and where it is difficult to get enough barn manure there is no trouble raising excellent crops, and where proper rotation is followed the land will improve.

We often see it written that sulphate of potash is better to use for potatoes and berries than the muriate, as the chlorine in the muriate would give a little off flavor, but we have never noticed any marked difference, although the sulphate appears to have the advantage. The cost to mem-

bers is a little over \$30.00 per ton, and varies a little, according to the grade. We have at times sold as low as \$26. Will say again that there need be no fear of not getting a satisfactory crop if properly cultivated with the fertilizers, and they can be successfully used on almost any soil. Generally, I think, they do better in the heavier soils. For beets, mangels, sugar beets, turnips, cabbage, potatoes, peas, beans, strawberries, oats and other grain, I have not used any barn manure for fifteen years, and always do first-rate. I cite my own case, as probably I have tested on all crops alone more than anyone else in our vicinity. Perhaps in another article I might explain method of using for different crops. What barn manure I have I use on rhubarb and squash, and sometimes in setting strawberries.

O. W. WETMORE.

King's Co., N. B. Sec. Agr. Society No. 23.

### The Work of the Seed-selection Special

During January and February of this year an important experiment was tried in the Prairie Provinces, the results of which must surely bring great benefit to the farmers of the West. For many years it has been known that smut was causing considerable loss among the small-grain crops in that part of Canada, and although some of the more advanced farmers every year treated their grain to protect themselves against this loss, many others did not. As the crop of 1905 came under inspection in Winnipeg, on its way to the lake front for shipment, it was found that an alarming amount of the wheat was contaminated with smut, or with the seeds of weeds. In 1903 the percentage of dockage and rejection was only 3%; in 1904 this had run up to 5%, or nearly double; but in the crop of 1905 a far worse state of affairs was manifested, and it is probable that upwards of 20% of the enormous crop for the year, of nearly 90 million bushels of wheat, will be graded as "rejected" by the official inspectors. It was thought that something could and should at once be done to improve this state of affairs. The Canadian Pacific Railway and the Dominion Department of Agriculture consulted together, and invited other influential bodies to join them in a special campaign, the aim of which was to remind farmers before the spring work began that more care was necessary than had evidently been shown in preparing their seed grain and caring for the resulting crop. Mr. W. B. Lanigan, of the Canadian Pacific Railway, and Mr. G. H. Clark, of the Dominion Seed Branch of the Department of Agriculture, were the two leading spirits in this work. The Canadian Pacific Railway provided the train, in which the speakers lived entirely during the two months of the campaign, and hauled it over all their lines. The Canadian Northern co-operated with the Canadian Pacific, and all the chief places along both of these railways in the West were visited.

The lecturers were for the most part officials of the Dominion Department of Agriculture, and all were under the direction of Mr. Clark, the energetic Chief of the Seed Division at Ottawa. Mr. Angus Mackay and Mr. S. A. Bedford, of Brandon, the well-known and highly-esteemed Superintendents of the Western Experimental Farms, gave most valuable assistance, as also did Mr. T. N. Willing, the Chief Weed Inspector for the Province of Saskatchewan, who probably has a wider and more exact knowledge of the weeds of the West than anyone else. Messrs. James Murray, W. C. McKillican and the writer, all members of the Dominion Department of Agriculture, also took part in this important work.

The Grain-growers' Associations of Manitoba and the Northwest Territories were represented by their head officials. Mr. Motherwell, the Minister of Agriculture for Saskatchewan, who is also President of the Northwest Grain-growers' Association, and Messrs. McCuaig, Henders and McKenzie, of the Manitoba Grain-growers' Association, showed their sympathy with the movement, by accompanying the train for the greater part of the time, and delivered many valuable addresses. Mr. John Mooney, of Valley River, Man., a practical farmer and an expert breeder of pure grain, and Mr. Mitchell, Weed Inspector for the Province of Alberta, spoke on seed selection and seed testing.

The campaign lasted for two months, in which time 206 meetings were held, which were attended in all by 28,910 people. A noticeable feature of this campaign was that the railways did their work well, arriving at the advertised points promptly in almost every instance. The speakers showed that they knew thoroughly the subjects they were dealing with, and the audiences were invariably appreciative and sympathetic, listening patiently and asking many useful questions concerning those subjects of the greatest local interest. Notwithstanding the low temperatures which prevailed during part of January, the lecture cars were always well filled, many farmers driving in to the meetings from ten to twenty miles. The audiences frequently expressed their satisfaction with what they had heard, and the only regrets voiced were that the meetings could not be longer, and that more places could not be visited. For the most part there were two lecturers in each car, and the subjects dealt with were practically the same at each place visited, except that prominence was given to the subjects or the weeds which were known to be of greatest interest in each place. At the close of each meeting the visitors were handed some specially-prepared pamphlets, in which the subjects dealt with by the lecturers were also treated of in a concise way, and they



were requested to take these home and to discuss them with their friends.

It was distinctly stated that no effort was being made to teach the farmers of the West anything new, but simply to remind them that the public records which were appearing in the daily newspapers of the inspections of the wheat going forward showed the existence of an alarming state of affairs from the number of cars which were being marked "rejected," and, further, that this was from causes which could to a large measure be prevented. These causes suggested the subjects treated of, which were as follows:

1. Seed Selection by Fanning Mills.—It was pointed out how much could be done by using the fanning mill thoroughly, to blow out all small and broken grains which produce weak, late-maturing plants, and that good plump seed would give strong plants, which would produce a regular and uniform crop. Lack of vigor in the plants made them susceptible to injury from fungous diseases and insect pests.

2. Seed Selection in the Field.—It was advised to select every year some large heads of grain from fully-opened plants, true to a desired type and variety, and to use these for a breeding plot or base of supply for pure seed, thus increasing the yield and improving the quality of the grain. As illustrating the practicability of this measure, it was pointed out that all the millions of bushels of Red Fife wheat now cultivated in the West originated from a single plant found by Mr. David Fife in a field of wheat near Jermyn, Peterborough County, Ontario, in 1842, and also that during the present year a farmer at Moose Jaw had offered for sale 3,000 bushels of a selected strain of wheat, all of which was the product of a single head of wheat selected five years ago.

3. Seed-testing for Vitality.—Many samples were exhibited, showing how difficult it is to know from the appearance of grain what its germinating value is. Some samples, which looked very nearly as good as others which germinated 100%, when tested showed only a germinating power of from 50% to 60%, proving conclusively that if a farmer were to sow such grain without testing it for vitality, he would require to sow double the amount of seed to get a stand for a crop. The simplicity with which grain could be tested was shown by samples of grain which had been sprouted between the folds of a damp cloth placed between two tin dishes to retain the moisture. It was advised to pick out at random just 100 grains from the seed which had been put by for sowing. The cleanliness and fascination of this work commended itself particularly to the wives and children of farmers, who could thus, while contributing to their own pleasure, also do something of great benefit to the whole family.

An equally simple and rather better experiment was also shown, of placing the hundred grains in a box of soil, which could be kept in any warm room in the house, and would in a few days show not only how many seeds would germinate, but also the comparative vigor of the young plants.

4. Treatment of Seed Grain to Prevent Smut.—Smut, the fungous disease which is responsible for by far the greater proportion of loss in last year's crop, was specially dealt with. The nature of the disease was explained, and the remedies which had given the best results were recommended, together with the simplest way of applying them. It is well known by farmers in the West that bluestone or formalin are practical remedies for treating seed grain before sowing, so as to destroy the adhering smut spores. This may be done by dipping seed in a solution of 1 lb. of bluestone in 8 gallons of rainwater, or by sprinkling the same over the grain and turning it over thoroughly with a shovel until every grain is wet. It is best to sow as soon as convenient after the seed is dry, but the work may be done at any time when convenient after the middle of March. Ten gallons of solution will treat 8 bushels of oats or 10 bushels of wheat. Instead of the above, commercial formalin may be used, 4 oz. in each gallon of water; 1 lb. of formalin in 32 gallons of water will treat 27 bushels of oats or 32 bushels of wheat. Bluestone and formalin are equally good for wheat, but formalin is much better for oats and barley. After treating with formalin, the seed grain should be heap up and covered for a few hours with sacks or blankets, to keep the fumes in.

Some of the worst weeds were dealt with in detail, and it was pointed out that even the worst weeds could be controlled if their nature were considered. Farmers were recommended to give this matter special consideration. It was claimed that there were only eight or ten weeds which were noticeably destructive in any one locality, and that if the nature of these were borne in mind the work of destroying them would be much simpler.

Special instructions were given for the eradication of wild oats, stinkweed, field sow thistle and Canada thistle. Particular stress was laid on the value of harrowing, or using a weeder on growing crops for the destruction of the seedlings of all annual weeds while they were small and easily killed. Grain crops should only be harrowed when the land is in proper condition for harrowing, and not before the young grain is three inches high.

JAS. FLETCHER,  
Ottawa, Dominion Entomologist and Botanist.

**Our Premiums Please Every Time.**

We give you the privilege of returning every premium not found to be as represented. We will buy it back. What better guarantee could you want?

**Another Canadian for New Zealand.**

Mr. V. W. Jackson, B. A., who has recently been appointed by the New Zealand Government to introduce nature study and agriculture into the schools of that progressive colony, is an example of what loyalty to conviction will do. In his first school as a teacher, some ten or twelve years ago, he realized the valuable objects in education, saw that nature study was a good thing, put his new ideas into practice, and talked nature study to Wentworth County teachers. University training and honors in science did not take him from the outlook to nature. He continued to advocate "a going back to the soil," and his work for the past two years in the O. A. C., as lecturer in botany and geology, has kept him in touch with the agricultural phase of education. He made these subjects the botany and the geology of the fields. Mr. Jackson would give all the simpler arts a place in education. After graduating from the Ontario Normal College, he took a full course in manual training at the Macdonald Institute, and led the first graduating class of teachers in this subject. Mr. Jackson spent two summers in England, Scotland and Europe, and is well prepared for his important work in New Zealand.



Mr. V. W. Jackson, B. A.,

Who goes on an educational mission to New Zealand.

**Farm Forestry in the Maritime Provinces**

The forest, as well as watering, tempering and protecting the farm, supplies it with much useful and valuable material. Those who have to purchase coal at big prices know how it eats into the year's revenues. Once established, the woodlot, properly handled, will reproduce itself, and supply in reasonable proportions, not only the fuel, but much of the timber and lumber required in the up-keep and extension of farm construction. The poorest portion of the farm—that unfit for tillage—may thus be made to bring in the best returns. On a well-regulated farm of 100 acres, 25 per cent. should be left in forest. In harvesting, the openings should not be made so large at any time in this woodlot as not to be easily reseeded from the adjacent trees.

The forest will not only benefit the farm and add to its value in all the ways we have been describing, but it will so beautify it as to make life doubly pleasurable to those upon it, and also to the community in which it is placed. "A thing of beauty is a joy forever"—and what so beautiful as a thrifty tree in the open, a line of trees by the roadside, a clump of trees in some waste corner, a well-kept grove of wind-break sheltering the farm buildings, or a woodlot lifting its head high to the sky in conscious pride of its worth on the rear line of the holding? The value of that farm, if by any necessity it has to be put on the market, is greatly enhanced by such adornment, and the extra cost of it has been little or nothing to the farmer when everything is computed. Nay, it has paid him a hundredfold, bettering and blessing his life.

"Nature is man's best teacher. She unfolds Her treasures to his search, unseals his eye, Illumes his mind, and purifies his heart, An influence breathes from all the sights and sounds Of her existence." —Street.

The question comes naturally to every lip: "How are we to restore, in sections impaired, the proportion of forest to field; how maintain it where it exists at present? How are we to bring about in Eastern Canada a sane system of farm forestry?" To our mind, a general-forestry policy should be quickly and effectually evolved by the central authority, not only with regard to the new countries under its control, where the mistakes of older Canada must not be repeated, but also in the older portions, where the national life has been adversely affected by the dangers with which the sacrifice of the forest have menaced it in its economic, agronomic, climatic, hygienic and æsthetic relations. As with agriculture, even where the Provinces have supreme control, a paternal policy, productive of the best results, has been long adopted, federally, by which educational and practical assistance has been bestowed; so, in the forestic endeavor, the presence of the instructor and the bestowal of stock where-with to replant may become necessary. The farmer can thus be taught the value of his woodlot at comparatively little expense to the country, and the result in prosperity and national happiness will far outreach the returns, great as they have been, in any other line of agricultural effort. A fully-equipped federal department, looking to the maintenance and necessary extension of forestry in every portion of Canada, is the necessity of the hour. Let us hope, then, that in the general impetus which this Council must give to this great national interest, farm forestry in Eastern Canada will not be overlooked.—(Rev. Father Burke, before the Canadian Forestry Convention, January, 1906.)

**Commercial Bluestone.**

The fact that there was a larger proportion of smutty grain in Manitoba and Saskatchewan last season than for some years past aroused a suspicion in the minds of many regarding the quality of the bluestone used in treating the wheat. To ascertain what foundation there might be for this suspicion, we considered it desirable to procure samples from farmers and dealers at various points in the Northwest, and submit them to analysis. In this way we have received since October last in the neighborhood of fifty samples. Their analysis has not revealed the presence of any adulteration, and, without exception, we have reported them of the usual commercial quality or grade.

This finding does not, of course, mean that these samples were chemically pure sulphate of copper; commercial bluestone invariably contains a small percentage of sulphate of iron (copperas) and other impurities, and the samples under examination proved no exception to the rule. The amounts of sulphate of iron obtained varied from 1.04% to 3.82%, which percentages, as we have intimated, are not greater than those which have always been found in the ordinary bluestone upon the market.

Some years ago (1890) there was offered for sale in the Northwest a so-called "Agricultural Bluestone," which, on analysis, proved to contain a very large proportion of sulphate of iron—from 30.0 to 60.0%. Experiments undertaken by us with this material—which differs from ordinary bluestone by the crystals being of a light greenish-blue color—showed conclusively that it was much less effective in smut prevention than bluestone. Further investigation made it clear that sulphate of iron was practically valueless for smut destruction, and consequently, that its presence in any large proportion would considerably reduce the beneficial action of the bluestone. The amount in the ordinary commercial bluestone, however, in the writer's opinion, is not large enough to materially lower the value of the bluestone for the treatment of wheat. It may be added that no sample of this agricultural bluestone has been received at the Experimental Farm laboratories for a number of years, so that we may suppose this spurious article is not for sale in the Northwest.

FRANK T. SHUTT,  
Chemist, Dominion Experimental Farms.

**Nitro-culture in Texas.**

O. M. Ball, Mycologist of the Texas Agricultural College, in a bulletin on nitro-culture, summarizes the conclusions of his findings in laboratory experiments as follows: Inoculation with so-called nitro-culture is of more than doubtful value, since only a small proportion of the plants treated developed tubercles, and these were in no observable degree benefited by their presence.

In no case of artificial inoculation were the number and vigor of the tubercles so great as in that occurring by natural means. In experimenting, it was also shown that alfalfa will become inoculated when sown on land growing bur clover, a plant which makes its appearance above the ground at the Texas College during the month of November. Inoculation may likewise be produced by water with a solution of soil on which bur clover has grown, or by making an infusion of the nodules on the roots of bur clover.



### A Four-year Rotation.

Editor "The Farmer's Advocate":

I take the liberty of sending you a few notes, as requested in an editorial of a recent issue of your paper, on the subject assigned. I shall endeavor to give in this article something of an outline of the rotation followed by many in this county, where dairy produce is the principal output, and where clean and fertile fields are not uncommon. We do not all follow the same rotation, for no rotation could be planned that would be applicable to every farm of a township, or even community, let alone a whole county. There is no hard-and-fast rule of rotation, and I think it was realizing this that "The Farmer's Advocate" encouraged this discussion, and realizing this we shall profit thereby. I said there were reasons why we should follow a rotation. Allow me to submit a few, which I think will make it evident.

First, while all farm crops are made up of the same chemical elements, the proportion in which the different crops use these is different. The range of roots and the power of assimilating plant food differs in different crops. For instance, wheat derives most of its plant food from near the surface, while the clovers get much of theirs deeper down. By a rotation we are able to frequently grow a leguminous crop, especially clover. The growing of cereals or roots continually, tends to exhaust humus and nitrogen, and the benefit of a rotation as a means of keeping up humus and nitrogen cannot be overestimated. Again, rotation is a means of destroying weeds and fungi, and this is of great importance. In growing any crop continually, fungus diseases and certain weeds often become very troublesome. Rotation will give you from a field the largest total amount of nutrients, and a rotation lessens the risk of the farmer. The conditions of any one year will not affect all of his crops; and, further, a rotation enables a farmer to distribute his work much better over the year. I think we have ere this grasped the importance and value of rotation, and I think in planning one we should plan with these objects in view: First, bringing in clover as frequently as possible; second, the alternation of grain with grass crops; and, third, the alternation of cultivated or hoed crops with unhoed crops, with a view to fining the soil and to destroying weeds.

Conditions sometimes render it difficult or impossible for one to follow such a rotation as one would like, or to follow it as regularly as one would like. Such is our experience in managing our farm, as we have a great deal of permanent pasture. Now, by rotation, I do not mean simply a change, but also a change in the regular order, and there is no mistake in this, as I do not think it advisable to stick too closely to a rotation. Do not be afraid to violate once in awhile to destroy weeds in parts infested, or for other reasons, if you would have the greatest measure of success.

The rotation I am going to outline, and the one we follow on our farm as near as practicable, is a four-year rotation, and I consider this long enough. To start with a clover sod or pasture, we plow this very shallow, and turn sod well under as early as we can in August or September, and then practice a thorough cultivation on this throughout the fall months. This hastens the rotting of the sod, and is very effectual in killing many troublesome weeds. We endeavor throughout our methods of cultivation to save all humus and surface soil, and keep this near the surface and away from the cold, hungry subsoil. This land is intended for hoed crops the following season, and upon it we spread all manure available in the fall and throughout the stabling season, for we always try to have an area large enough to take all the manure made. In the spring this land is plowed very shallow with a wheel plow, the object sought being to thoroughly incorporate the manure in the surface soil to render subsequent cultivation necessary in seeding easier and more effectual. The growing crops are carefully cultivated throughout the summer, the soil stirred deep at first and shallower as the crop progresses. Here is where we destroy the weeds. After harvesting this ground is plowed again, as we find it essential in order to prepare a seed-bed of good tilth and depth in our soil, and we have failed as yet to notice any detrimental effects in loss of humus or fertility by this plowing. The following spring we seed to grain crops, oats and barley, and a heavy seeding of timothy, red clover and alsike clover. On this crop the only way to destroy weeds after seeding is by hand pulling, which is sometimes resorted to, in case of sow-thistle or mustard. The next year we cut the grass crop for hay, and a fine cut it generally is, averaging often three tons per acre, and when properly cured makes very desirable fodder; and then the clover aftermath is a crop of no little importance in this year's rotation, as it affords a great deal of excellent pasturage throughout the fall months for the dairy cows. The fourth year we pasture again, or if the pasture is not needed we take a second cut of hay and plow in early fall, and cultivate as I have previously explained.

By this system of rotation our land receives a liberal dressing of manure every fourth year; we are afforded an opportunity to combat with weeds every fourth year in a hoed crop, besides the cultivation in the fall months, besides the smothering from the crops of clover, as our land is seeded to clover every fourth year, and fertility added from this source. We find this system to give satisfaction on a dairy farm; we have an abundance of roughage, our pastures are always good, and farmyard manure is plentiful. As a result, weeds are being eradicated, fertility increased, and, consequently, our returns, so we are satisfied. As I have said before, however, a rotation cannot be laid

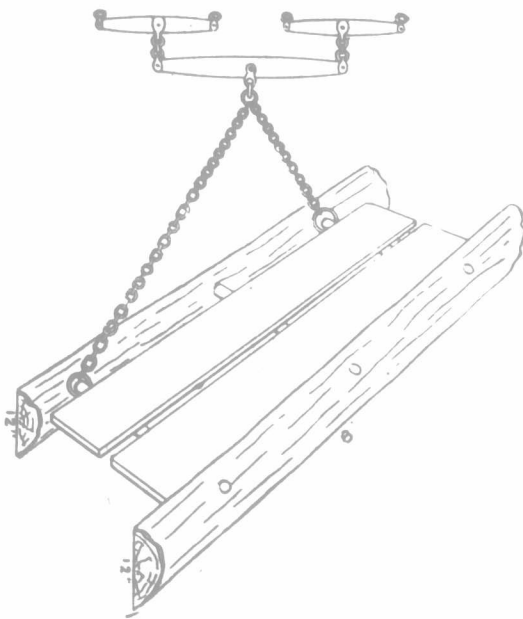
down that will be applicable to all farms, and, further, let me repeat, one must not be afraid to strike out from the general order of the rotation once in awhile if best results would be had.

Dundas Co., Ont.

CLARK HAMILTON.

### The Split-log Drag.

During the past year or two widespread interest has been aroused in the United States in a simple roadmaking implement called the split-log drag. It is intended to be used when the roads are muddy, the idea being to puddle them so they will dry up with a smooth, compact surface. The object is thus entirely different from that of the old-fashioned road leveller, which is not used until the surface is dry enough to be friable, by which time the worst stage of the



road is past. The old-fashioned road-leveller was an invaluable implement, however. Of the split-log drag we have had no experience, nor have we had the privilege of seeing one used, but great claims are made for it, and the reasonableness of the plan and the inexpensiveness of the implement make it worth a trial. It is thus described by the inventor, D. Ward King, of Missouri:

The two halves of a split log, ten to twelve inches thick, are set on edge thirty inches apart, both flat sides to the front. The cross-pieces are strong oak or hedge bars, the ends of which are wedged in two-inch auger holes bored through the slabs. In other respects, the cut is self-explanatory. If working a clay or gumbo road, it is advised to put iron—old wagon tire, or something of the sort—on lower edge of drag at end of six months; for softer soil, at end of twelve months. For further particulars about this drag and its uses, read the following by the inventor himself:

From the outset of this work, so many questions have poured in upon me indicating points concerning which the public is prone to go astray in its understanding of how to build and use the split-log drag, that I have prepared the following road-dragging "catechism," as covering, with fair completeness, the main working facts in the problem:

Would it not be better to plow the road before dragging?

No. Plowing gives a soft foundation. Plowing the middle of the road is a relic of the old dump-scraper days.

What do you do when there are deep ruts in the road?

Drag them. If you drag when the surface is quite loose and soft, you will be surprised how soon the ruts disappear.

How do you get the dirt to the middle of the road?

By hauling the drag slantwise, with the end that is toward the center of the road a little to the rear of the other end.

But suppose the road is too narrow?

First drag the wheel tracks. After three or four rains or wet spells, plow a shallow furrow just outside the dragged part. Spread this over the road with a drag. Only plow one furrow. You may plow another furrow after the next rain. At each plowing you widen the roadbed two feet.

How many horses do you use?

Two, generally; three if it is just as handy; four when breaking colts—a good solid team in the center, and a colt on each side; two men on the drag, one to drive, the other to control the colts.

How do you drain the road?

If the earth is pushed in the middle of the road continually, the road will drain itself.

Why not make the drag out of plank?

You can, and do good work; but the split-log is the best. The plank drag is not so stiff.

Why not make the drag of heavy sawed timber?

ber?

Because drags so made have a tendency to slip over the bumps.

Don't you grade up the road first?

No. The grading is done with the drag, gradually. By so doing, the road is solid all the time, and is built on a solid foundation.

What does it cost to drag a mile of road a year?

The cost is variously estimated at from one to three dollars.

How do you keep the drag from dodging around sidewise?

By not loading it too heavily. If a drag dodges around the earth you are moving, it is because it is overloaded.

Will the dragged road stand heavy hauling?

Yes and no. A dragged road will stand more heavy hauling than an undragged road, but not so much as a macadamized or well-kept gravel road.

Will a drag help a sand road?

A sand road is a very different proposition from the black soil, clay or gumbo. An entirely different method must be adopted. Three things may be done to a sand road to make it better: first, keep it wet; second, haul clay on to it; third, sprinkle it with crude oil, as they do in California and in some parts of Southern Kansas and Texas. The drag will be beneficial in keeping the sand road perfectly flat, so that it will absorb moisture and retain it a long time.

To this catechism I would add the following "Don'ts": Don't drive too fast. Don't walk; get on the drag and ride. Don't be particular about material; almost any log will do. Don't try to drag with only one piece; use two.

### Spring Cultivation.

Much depends upon the proper cultivation of the soil preparatory to the spring seeding, and a little discussion of this feature of farm operations is seasonable at this period. As a rule, the land intended to be sown with spring crops has been plowed in the fall, in order to give it the benefit of the action of winter frosts, rendering the soil more friable and easily reduced to a fine tilth in the preparation of the seed-bed.

There is generally little difficulty in securing this condition of the land at the beginning of the seeding operations, the land being then sufficiently moist to break up into a fine tilth without much labor; but later in the season, if the weather continues dry for a considerable time, the moisture, especially in the case of clay lands lacking in humus, rapidly escapes by evaporation, leaving the land dry and hard, requiring extra time and labor in the cultivation, while, from the lack of sufficient moisture, germination of the seed is delayed, and the crop is liable to be crippled in its infancy and the yield much reduced. By anticipating this condition, there is a way of preventing it, and the principal difficulty in its adoption is the general scarcity of farm help and the commendable ambition to push the seeding to completion as early as practicable. The method we have in mind is the harrowing or light surface cultivation of the fields before the land becomes too dry, thus securing a loose-earth mulch to prevent the evaporation of moisture and keep the soil in an easily-cultivable condition.

While this suggestion may not be considered practicable in all cases, owing to the objection that water furrows would be filled in, preventing drainage in case of heavy rains coming, it might, in many cases, be adopted partially; that is, upon the higher portions of fields which are liable to become dry and hard before the lower levels are sufficiently dry to cultivate. It not infrequently occurs that the lower parts of a field are not dry enough to work, and, while waiting for these to dry out, the higher portions may be well harrowed or cultivated, thus economizing time, conserving the moisture in the land, and ensuring a more uniformly good crop on all parts of the field.

Another suggestion that may be worth consideration and a trial, is the harrowing of spring grain on those high and dry places after a heavy rain has packed the soil closely, and it is liable to become crusted when dried out, shutting out the air, and binding the plants in a brick-like encasing. If such parts of a field liable to bake were harrowed soon after a rain, even after the crop is well above ground, the loosening of the land and admission of air would give vigor to the plants and conserve moisture by means of the earth mulch, that would go far to ensure a good crop. The objection will no doubt be raised that where clover seed has been sown and has germinated the plants would be destroyed, which may be true to some extent, but the question may be raised whether more of the plants would be destroyed by harrowing than would be smothered or choked by the crusted and sealed surface, if left alone.

It may be well worth while to experiment on a small scale, at least in a case of this kind. It is generally conceded to be good practice to harrow fall wheat in the spring, and to harrow corn after the plants are above ground. The writer has harrowed peas after germination, on a hill-top after a rain, with excellent results, and has



seen mangels sown on the flat harrowed to good advantage when well above ground. The question may be worth discussing whether the same principle may not be profitably applied in the case of cereal crops sown in the spring. If used before the land has got too dry, a weeder will do this work better than a harrow. This simple implement is used in the West, we understand, with good results, and has been employed, to some extent, in Ontario, with marked benefit on clay-loam soils. Mangels may be sown on the flat and cultivated with this and only two or three strokes of the scuffler, the weeder being used after each rain, lengthwise of the rows, crosswise and lengthwise again with a tooth removed immediately over each row. It is also a splendid thing to use on grain crops, and in corn. When used by a careful man, it does an astonishing amount of good at nearly all stages, with incredibly little injury to the crop. One should be on every farm. We shall be glad to hear from any of our readers who have had experience in this practice, or to have their opinion of its practicability.

#### Name at the Road Gate.

I have been thinking lately how convenient it would be if every farmer would have his name painted on a board and nailed up at his road gate. Could you not agitate this, and in some way bring it to pass?

RYERSON OGLE.

[Note.—It is a capital idea. We suggested it in our issue of March 29th. Our columns are open to suggestions.—Editor.]

#### Permanent Pasture.

W. T. Macoun, Horticulturist of the Central Experimental Farm, writes: "While permanent pastures are not recommended, as a rule, by the Agricultural Department of the Experimental Farms, one of the best mixtures for permanent pasture is made by using 4 pounds each of alfalfa, common red clover, orchard grass, brome grass, and timothy, or 20 pounds in all."

#### Income from a 67-acre Ontario Farm.

Reading your remarks, as well as those of your many correspondents, on crop rotation, carries my mind back thirty years ago, when I first took up farming for myself on a rented, run-down farm, in a not very prosperous neighborhood, and on a soil not naturally very productive. I was very young to begin farming on my own account, and a long distance from the paternal roof, and had a very hard up-hill road to go, principally on account of lack of funds and the run-down state of the farm, and the unwelcome advice of the land owner, which ran all through my occupancy in this fashion: "That field ought to be planted to corn, as I have had corn on it for twenty-two years, and never missed a crop." Another favorite expression of the landlord was: "Don't break up that sod field; it pays to cut as long as you can get a sheep's mouthful at a clip." Another injunction was to almost forbid me sowing plaster, as it took so much strength out of the soil by growing such a large crop. Such advice, or, I may say, rebukes, as these I got periodically, and the ideas were just the opposite to what I believed and to the way I was brought up, as my father was considered a good as well as a prosperous farmer. He had a good soil—walnut loam—to begin with, and followed the three-year rotation that your correspondents recommend, with the exception of cutting clover seed off instead of plowing the second crop under. This he did by stimulating the soil by sowing plaster, though to the detriment of the soil, as the old farm speaks for itself. A few years' continuation of this succession will impoverish land, unless one keeps more stock than the farm will feed, and buys large quantities of feed, and puts it back on the land in the shape of barnyard manure, which for all kinds of crops I prefer to any other nitrogen or humus producer, unless it be clover roots. Of the latter, my experience is that the thicker and larger you get them in the soil, the better the next crop, either roots or grain. My practice is to seed every grain crop to clover, about six quarts red clover, one quart alsike and one quart timothy per acre. This always makes a good sod for fall pasture and hay next year, or to plow up in the spring for corn or pea crop. If left for hay, cut but one crop, and pasture balance of season. Pasturing seems to develop the clover roots to greater size than the old method of cutting a second crop for hay or seed, thus storing up sufficient nitrogen and humus to grow a first-class crop of corn or peas. This seeding to clover I consider the cleanest and easiest method of manuring the ground, as it seldom exceeds two dollars per acre for the above mixture, and we will have to invent some cheaper way of drawing manure if we are to get an acre covered for that figure, even if we have it not far from the needy field.

Clovering is the keystone to all good farming in this part of the Dominion, and it has brought

my run-down sandy-and-loam farm up, till it produces every year an abundant crop, heavier each year than the year before. It might be interesting and inspiring to some—and, I trust, not discouraging to any—to know what can be produced on a small farm of 67 acres in a single year, here in East Elgin, Ontario. I sold in 1905:

5 hogs (fat) .....	\$ 56 50
3 pure-bred calves .....	190 00
1 veal calf .....	5 00
76 lbs. wool .....	18 24
1 sheep (fat) .....	6 00
1 lamb .....	12 00
1 grade heifer .....	14 00
6 acres canning peas .....	157 19
5 acres canning corn .....	139 00
5 cows, checks from cheese factory .....	323 33
	<hr/>
	\$921 26

In addition to the above, we sold some apples, potatoes, chickens, eggs, berries, milk, butter and cabbage, which I have not the exact figures of, but which must aggregate nearly \$50. Also the partial growth of four head of grade two-year-old cattle, sold for \$102; and prize money on roots and stock, \$68.15.

We also produced on the above farm:

24 tons hay .....	\$120 00
536 bushels oats, at 30c .....	160 80
128 bushels wheat, at 80c .....	102 40
2 acres peas not threshed .....	50 00
100 bushels roots .....	10 00

The above amount, with the growth of five registered Holstein heifers, and six Leicester ewes, and two colts, would be increased fully \$150 if sold. In conclusion, I might state we have as many colts as a year ago, twice as many ewes and lambs, twice as many cows, and expect twice as many pure-bred calves. We have as many young cattle, and one more hog and three more pure-bred pigs. So, with anything of an ordinary year, we will be able to duplicate last year's income easily. G. H. CAUGHELL & SON, Elgin Co., Ont.

#### Lightning Rods.

I notice in your issue of March 15th an arrangement for a homemade lightning-rod. I have been a subscriber to your valuable paper for several years, and three years ago I had copper rods erected on all my buildings. I could, at the time, have had an iron-wire rod at a cheaper price erected on my buildings, but iron wire has an 8-per-cent. conducting power, while copper has 100 per cent. (a heavy lightning bolt is estimated at a good many thousand horsepower). My rod is a five-eighths copper cable rod, and I often think it is not capable of carrying off a very heavy stroke of lightning. I do not see why electric-light companies and electric-car companies do not install iron wire for conducting their electricity, in place of the expensive copper wire they use, if the iron wire would answer the same purpose. In my opinion, an iron-wire rod would attract the lightning, but could only carry off 8 per cent. of the electricity, leaving the 92 per cent. to smash into the building, and, therefore, doing greater harm to the building than no rods at all. I also think a lightning-rod ought to be put up by someone who has had experience in the business, and not by someone who may make a trap to burn their own buildings. AN OLD SUBSCRIBER.

Ontario Co.

In the year 1897, one of our subscribers, Mr. T. Baty, of Middlesex Co., Ont., having rodged his barns himself with cable made of galvanized iron wire twisted together, sent us an account of what he had done, and asked us to get the opinion of experts on the merits of the rod he had constructed. We wrote to several, and the replies received were all favorable, some of them warmly commending our correspondent for what he had done. The Provincial Inspector of Insurance, Mr. J. Howard Hunter, went so far as to say that if our farmers generally would follow Mr. Baty's example, the deplorable loss which occurs every year by lightning fires would soon be at an end. Among other authorities consulted was Mr. John Dearness, now Vice-Principal at the Normal School, London, who gave a rather cautious endorsement. In the same year, however, Mr. Dearness met, at the meeting of the British Association in Toronto, Prof. Lodge, of Liverpool (now Sir Oliver Lodge), the recognized authority in England on lightning-rods, and asked his opinion on the fence-wire homemade rod. Prof. Lodge said that a building rodged as had been described, would be well guarded. He further said that well-galvanized fence wire made an excellent conductor, really better than those made of copper or its compounds, in that it did not rust, while these oxidized rapidly, so that they were quite black and sooty-looking in a short time. Our authorities for recommending rods of galvanized iron wire are, as will be seen, no mean ones. Sir Oliver Lodge is now recog-

nized as one of the leading electricians of the world.

It is believed that when lightning is being conducted along a rod, the current scarcely enters the body of the metal, but is carried off on the outer surface chiefly. What is needed is a bright surface, and plenty of it. The superior conducting power of copper is only in small part available for a lightning discharge. Copper has about eleven times the conducting power of iron, but the statement that an iron conductor will carry only 8 per cent. of an electric current, while copper will carry 100 per cent., sounds like the talk of a lightning-rod agent. As we understand it, an iron wire eleven times the weight of one of copper is required to convey a given amount of electricity, so that if the weight is in proper proportion, the conducting power will be equal. This matter of weight no doubt has a good deal to do with the use of copper instead of iron for electric wiring. Increased weight would mean much-increased expense for poles, etc. This objection does not apply to rods on buildings, however; but if a person really believes that copper would answer better than iron, there is no reason why he should not himself buy and twist the wire. We think that he would find it more than eleven times as costly.

In regard to the wisdom of having men of knowledge and experience erect lightning-rods, there can be no two opinions, but the average lightning-rod agent knows as little and cares much less about the proper construction of them than the farmer whom he dupes. As a rule, to which there are no doubt honorable exceptions, of all the sharks who have preyed upon the public, the lightning-rod peddler has been one of the most unscrupulous and extortionate. That is one of the chief reasons why there are not a greater proportion of buildings protected by rods to-day.

In England, where it has become the fashion to rod buildings by tacking on a ribbon of copper, the objection that our correspondent urges against the use of iron wire has been brought against the copper ribbon, viz., that the attractive power exceeds the power of conduction, and buildings have been smashed in consequence. Very much depends on having good ground connection, and it is at this point that rods put up by agents have been most defective.

## THE DAIRY.

### Developing a Cow.

When we stop to think that all kinds and breeds of cattle undoubtedly originated from the same pair that the good Lord created at the beginning, we begin to realize what an artificial production the cattle of to-day are; how that environment, conditions and tastes of men have developed them along different lines, until to-day we have many different breeds, with characteristics peculiar to each breed, and each breeding true to the type, color and conformation of its own peculiar breed. Of course, this was the work of ages, and requires a great deal of skill, patience and perseverance; but it shows what can be accomplished if we have a definite aim in view.

Cows, like men, are good or bad, oftentimes because of their environment, bringing up, and education. We look for and expect men to be good, if brought up in good and religious families and communities. I have often heard it said, "give me the first six years of a child's life, and I will tell you with a great deal of certainty what the future of that child's life will be." So I believe that the conditions under which an animal is reared determines, in a large measure, her future usefulness or uselessness.

As with men, the parentage is of great value, and we look for and have good reason to expect cows to be better cows from a long line of productive ancestry; so this, then, is the stepping-stone in the developing of a dairy cow.

A profitable cow, in my estimation, is one that can produce in a year, or, still better, a series of years, a good maximum yield of milk and butter, at a cost that will yield a good profit to her owner, and also produce a strong, healthy calf each year. This ought to be one of the requisites in securing the sire for the head of the herd, to not only see that he is from a productive strain, but from a family of regular breeders, because he not only reproduces his good qualities, but often intensifies his weak points as well. See that he is as near perfect in conformation and dairy make-up as possible, for, with all the care we may exercise in mating our animals, some faulty ones will develop that we had not figured on; so if we have looked well to this end, to see that the sire is right, and that the dams we are to use for foundation are right, we have gone a long way toward their development.

I recently heard of a breeder that, when the little heifer calf came into the herd, it was examined, and if it did not have so many developed teeth, and the udder and teats just as well developed, it was knocked in the head. I want to say that, if we had practiced such a method in our herd, we should have slaughtered some of



our most valuable animals, for we have found that all heifers do not develop alike. Some are veritable little cows at six months old, while others do not develop real good cow qualities until three or four years of age.

Calves should be fed in such a way as not to impair either growth or digestion, for later on we are going to ask them to take care of a lot of feed, so that they may develop and be profitable animals; but if fed and cared for in a careless and harmful manner, their digestive faculties have been impaired, and they simply say, "we can't do it."

I am still a believer that heifers should not freshen too young; if allowed to drop their first calf at from twenty-eight to thirty months of age, they will get a little more growth and strength, and we believe their digestive abilities are also strengthened.

There are many things that enter into the development of the dairy cow, and possibly if any one was dropped out the best of results could not be obtained, and the man that uses that part of his body above his ears the most freely usually succeeds best.

We have come to believe that a large part is due to the feed end of the question; the organs of digestion, like the other organs and muscles of the body, are developed best by constant use. The breeder that through neglect has not provided in some way for the emergencies that always come, is short-sighted. We all know when a cow once shrinks in her milk how hard it is to get her back, and quite often it is impossible, even with the best of feed; so it stands us in hand to provide in some way for these times, and either have some soiling crops growing or enough silage stored up to supplement the short pasture of summer, also to supply succulent feed for winter use.

I believe there is such a thing as compelling success. Every breeder should have such a complete understanding of his business, and the individual needs of each animal, so that there is no time in the year when she may not have an abundance of good rich, juicy foods best suited for milk production.

The successful development of cows rests largely on the breeder's equipment. Loretta Dis, Yeksa Sunbeams, or Shadybrook Gerbens, do not come by "happenstance." They are the result of equipment: First, right breeding; second, right feeding; third, right care.

One man, in writing of cows, says: "The cow does not make her milk from running brooks or sunny skies." To be sure she does not; yet I believe that the water and the sunshine are quite important factors in the best milk production. Convenience for watering, and at the right temperature, means something; and the pleasantly-situated cow-stable, with plenty of windows for the sun to shine through, means something; good warm, clean stables, well ventilated; balanced rations, kindness, patience, watchfulness, "stick-to-itiveness"—all mean something.

I made the assessment in our township last year, and, in getting statistics, asked how many cows were kept during the year, and how many pounds of butter were made, and, in all the township, only found three or four men that could answer definitely. Each one knew how many bushels of grain and potatoes were grown, and how many tons of hay, but when it came to the cow question it was all an utter blank. Is it a wonder, then, that the average butter production is so low, when so little interest in it is taken?—[F. H. Scribner, in Jersey Bulletin.]

### New Dairy Association.

For several years there has existed in British Columbia an association known as the Dairymen's and Live-stock Association. In view of the fact that a Stock-breeders' Association had recently been formed, the members of the old association assembled last week and decided to start anew. The Provincial Government has assumed the liabilities of the old association. Those present unanimously supported a resolution for the formation of a new association, to be known as the British Columbia Dairymen's Association.

An up-to-date constitution and by-laws were adopted, and officers were elected as follows: President, A. C. Wells, Chilliwack; Vice-President, George Sangster, Sidney; Secretary-Treasurer, F. M. Logan, Victoria. Directors—J. T. Collins, Salt Spring Island; Geo. Deans, Victoria; W. E. Buckingham, Eburne; S. Smith, Dewdney; W. H. Raymur, Kelowna; C. Quenell, Lumby. Auditors—T. J. Trapp, New Westminster; Thos. Cunningham, Vancouver.

The new Dairymen's Association has petitioned the Government to appoint a dairy inspector, who will have the inspection of the creameries, as well as the stables and surroundings, under his charge. The new Act, as amended, provides for the appointment of a dairy inspector, and authorizes him to prohibit the sale of any milk, cream, butter or cheese produced or manufactured on premises which he considers unsuitable for the pro-

duction of wholesome goods, and if such decision is disregarded and steps are not taken for the improvement of such conditions, he may have a penalty, not to exceed \$50, imposed on each offender.

Ten per cent. of the patrons of every creamery or cheese factory in Canada, and in some localities fifty per cent., adopt no methods to prevent the impurities of the stable from getting into the milk, so unless these patrons are made to be more careful and cleanly, we shall be a long time in reaching perfection. This is something for dairy associations in other provinces to think over; but thinking will not make No. 1 butter—they must act. BLUENOSE.

### March Notes from Guelph Dairy School.

#### THE SCORING CONTEST.

All the students of the class entered this contest, held on March 17th. There were three samples each of cheese and butter. These were first scored by a committee of the instructors, and this score was known as the "official score." For each point above or below the "official score" in flavor, students were discredited 8 points. For errors in grain and texture they were discredited 4 points for each point above or below the official; and for closeness and color the discredits were two points. By adopting this plan there were few ties—none at all for the prizes—and so far as the instructors can see, it is an excellent plan to judge of the relative merits of students in scoring. The winners were Messrs. Haase and Dennis for butter, Marshall and Bathgate for cheese. The prizes were one gallon of butter color and one nickel-plated printer for the butter prizes; one cheese-crier and one spring balance for the cheese.

#### MANGELS FOR COWS.

A great many farmers have trouble in keeping mangels during the winter for cows, and for this reason some prefer turnips, which are unsafe for cows giving milk. We have had similar trouble in our root-house until this last winter. Last fall, before putting in the mangels, we put an extra lining of paper and lumber on the inside of the house to keep out frost, then in the center of the house we made a box about one foot square, of 2x4 scantling, having strips nailed around, and with space enough between the strips to allow free circulation of air from the mangels. This was connected with one of the ventilator shafts in the stable, and the results have been most satisfactory.

#### MILKING MACHINE.

We are receiving a great many letters about the milking machine. After three months' trial, all we can say is that it promises to be successful. We have had some difficulties to overcome. Some cows do not take kindly to it; with others it seems all right. As soon as we have had more experience with the machine we shall give the results to the public. In the meantime, our advice to farmers is, "go slow," and allow those who are in a position to do so, make the experiments. H. H. DEAN, Prof. Dairying.

## GARDEN & ORCHARD.

### The Georgian Bay Fruit-growers, Ltd.

Editor "The Farmer's Advocate":

For many years there was an association called the "Georgian Bay Fruit-growers." They held meetings and had Institute speakers address them, but there was very little in the way of practical good ever accomplished.

Several times the attempt was made to form into a selling and shipping association, but, owing to a lack of enthusiasm or confidence, it always failed. A few men who had large interests at stake, believing they were in the hands of a combine, and seeing that the association was not likely to be of much practical use, organized themselves into a joint-stock company, subscribed the necessary funds to capitalize for \$25,000, divided into 1,000 shares of \$25 each. They applied for a charter under the Ontario Companies Act, and received their letters patent on June 19th, 1905, after which they did more in the interests of co-operation in one hour than was achieved by the Association in ten years.

The promoters of the company are: J. G. Mitchell, George Mitchell, Wm. Reekie, Albert Moore and John Veitch (all farmers and fruit-growers). The officers are: President, John Veitch; Vice-President and General Manager, J. G. Mitchell; Directors—George Mitchell, Wm. Reekie and Albert Moore. Albert Moore is also Secretary, with Edward Rorke as Assistant Secretary.

Their charter covers the following purposes and objects, viz.: To deal wholesale and retail in all kinds of fruit; to build and own fruit houses and cold-storage plants; to own and operate evaporators, canning factories, cider and pulp mills, factories for the making of barrels, boxes,

baskets, crates, or any other package required in the handling of fruit.

In a short time many shares of the capital stock of the company were transferred to some 130 shareholders, who own many of the best orchards of the country, and the membership is constantly increasing.

On the 8th day of August ground was broken on the railway-siding for their ten-thousand-barrel fruit house at Thornbury. The building is of cement, and said to be the finest fruit storage and packing house in the Dominion, or, perhaps, in the world, owned and operated by the growers themselves. So rapidly did the work proceed, that it was only twenty-eight days from the breaking of the ground till the plates were bolted on the walls, which are 25 feet high. The top story is 10 inches thick, and the basement 14, standing on a footing 30 inches wide and 1 foot thick. The walls are insulated with matched lumber, and 4 inches hard-stripped, kiln-dried planer shavings. The ceiling throughout is of matched lumber, and filled between joists with 8 inches of planer shavings. The building is also provided with ventilators, which are working so effectually that there has been only three degrees change in temperature since December 2nd—all the time from 29 to 32, but mostly about 30, which is nearly perfect for the keeping of apples. Shipping facilities are so convenient that a car can be loaded in 30 minutes.

#### HOW THE FRUIT IS HANDLED.

The growers pick and pack their apples in their orchards, but do not grade them. They are then brought to the fruit house and stored till wanted for shipment. They are then graded and packed by experienced men. In this way there is a uniform grade. All XXX apples are the same, and also XX. If not good enough for either they have to go with culls, which are sent to the evaporator or sold for immediate use for what they are. One dollar per barrel is advanced when apples are received, and balance when sold or at the close of the season. Many prefer to wait till the finishing-up, and then get all their money at once. This is done by the issue of a warehouse receipt, and the bank advances the money. Of course, those who do not take their money are not charged with discounts, but these amount to very little, anyway, as the proceeds of sales are soon turned against whatever may be taken out.

Financial results have been all that could be desired, although this is the company's first year in business. Their skillful and satisfactory grading and packing, together with up-to-date business methods, have enabled them to get the highest price in the Old Country markets of any shippers on this side of the water this season.

Their stock-holders will receive from 25 to 40 per cent. as to variety, over and above buyers' prices. There will also be a saving of at least 25 per cent. on apple barrels. Every one seems satisfied; only words of praise and encouragement are heard.

J. G. MITCHELL,  
General Manager.

### No Culls for the West, Thank You!

The breezy style of the West was illustrated in a talk by A. E. Clendeman, of Alberta, at the recent Dominion fruit conference in Ottawa. He wanted it understood that if the Department of Agriculture were handing out any Government manure to assist the fruit-growing business, the West wanted its share. Sunny Alberta has ambitions in fruit-growing, as in most things else. Already apple trees are bearing in Edmonton, and in a few years, he says, Ontario won't be able to sell No. 1's, much less No. 2's, in Northern Alberta. They propose to supply the home market themselves, also South Alberta and Saskatchewan, and even Manitoba—if the latter Province is not by that time growing her own. Meantime they want no apples with worms in either the blossom end or the side, "unless with each worm goes a guarantee that he is out of business when put in the barrel."

Westerners laugh at latitude. They even give the impression that high latitude is rather to be desired. Mr. Clendeman says he has seen 70 bushels of oats per acre in the Yukon, and as good wheat and barley and better vegetables than farther south. Summer growth is rapid in those long summer days, and this gives vegetables a crisp and tender quality.

### Looked for in Manitoba.

We have taken your paper for quite a number of years, and would not be without it in our home. It is eagerly looked for by every member of the family. Wishing you and your paper every success.

W. H. QUENNELL,  
Manitoba.

By Fischer, Perth Co. "The knife is certainly better than I expected, and I am well satisfied."



**The Planting of the Farmer's Home Grounds.**

The making of a lawn was discussed in our last article, and it was shown how easily and cheaply the work could be done. While it would probably not be possible in many cases to do all the necessary planting of trees, shrubs and vines the first season, a beginning should be made, even although it be with but a vine or two or a few shrubs and trees. Sometimes planting is put off from year to year because it is thought that there will not be time to do all that is in our mind, whereas, if a beginning were made, and a little done each year, it would be surprising how soon there would be a change in the appearance of the home surroundings.

There is nothing which improves a place so quickly as vines, and there is an advantage in beginning with them, as they can be procured and planted by almost any member of the household who is old enough to know how to plant anything. Three of the best climbers are three of our commonest wild plants, namely, the Wild Clematis or Virgin's Bower, Climbing Bittersweet, and Virginian Creeper. If these vines are not growing somewhere on the farm, one should be able to recall where he has seen them growing wild, and they can usually be obtained without cost. For a veranda, we prefer the Virgin's Bower, as it has attractive foliage and flowers, and is not troubled with insects, and hence the veranda is kept cleaner, and one can sit out with comfort. The Climbing Bittersweet is also a very clean vine, and it is not affected with insects, either. It has bright-green leaves, and although the flowers are insignificant, its highly-colored fruit, which remains on the plant most of the winter, makes it quite attractive at that season of the year. It is a very strong grower, and will soon add much to the appearance of the place. The third climber, and one which is perhaps more often used than either of the others, is the Virginian Creeper. As is well known, this is a rapid grower, and will cover a veranda in a short time, and in the autumn is very attractive on account of its highly-colored foliage. This vine is, however, much troubled with a little hopping insect called a thrip, which is so destructive to the foliage that many of the leaves wither, and often during the latter part of the summer the vine is quite disfigured.

This is a very difficult insect to control, and because of this we prefer keeping this vine more in the background, where its luxuriant growth in the early part of the summer and its brightly-tinted foliage in autumn may be seen from the distance. There is a self-fastening variety of Virginia Creeper which will cling tightly to a wall, and this is very useful for the side of the house or unsightly out-houses. In the warmer parts of the Province of Ontario the Japanese or Boston Ivy is one of the best plants for covering walls. There are other climbers with more beautiful flowers than any of those mentioned, but they are not so hardy. Among the best of these are the Crimson Rambler Rose, the flowers of which are a gorgeous sight in summer; the Scarlet Trumpet Honeysuckle, and the large-flowering varieties of Clematis.

Plants should be dug up with as many roots as possible, but instead of trying to save all the plant, only about two feet or less of the wood should be left on, the rest being cut away. If this be done the plant will grow much more thriftily than if a long piece of wood is left. The earlier in the spring the planting is done the more growth there will be, but if planting is neglected at the proper time, we should not hesitate to dig up a plant even when it was in leaf, as, if the roots are not allowed to become dry before planting and the soil is moist, it will be almost sure

to grow, although it should be well cut back when planted. If the soil close to the house is not very good, it should be removed to a depth of about eighteen inches and for about two feet in width, where the climbers are to be planted, and replaced with good soil. The strong growth which will be made when this is done will well repay any trouble which is taken. As the planting is done close to the house, there should not be much disturbance of the surrounding soil, which, we are taking for granted, is seeded down with lawn grass. In planting, the roots should

up it will not shade too much of the lawn. Elms look well when skirting a roadway, and an avenue made of these trees is a fine sight, but even one or two will show up well. They have an advantage over the hard maple in that they may be pruned up when necessary without losing their graceful appearance. Other large-growing trees which may be used with good effect, but which are too large for a small lawn, are the hard maple, Norway maple, red oak, white, red and Scotch pines, and the Norway spruce. They may be grouped at the rear of the house and back of the lawn, and will form an excellent background if planted in a clump, and will make a splendid wind-break both in winter and summer.

For shade and ornament on the lawn, and near the house, smaller-growing trees and shrubs may be used to advantage. There are many of these to choose from, but a few only will be mentioned, all of which are easy to get, and are among the most ornamental. One of the most useful of the smaller-growing trees is the European Mountain Ash or Rowan Tree. This is a hardy, rapid-growing, symmetrical tree, and is attractive in flower, foliage and fruit. It looks best when the branches are left on near the ground.

Cut-leaved Birch.—While this tree is a little more expensive than some of the others, it is so graceful and ornamental that one will never tire admiring it. It is very hardy, and a quick grower.

Crab Apple.—There is no tree more suitable for a farmer's lawn, or for any lawn, for that matter, than a well-shaped crab-apple tree, the wealth of sweet-scented flowers in spring and the highly-colored fruit in autumn making it very ornamental, and the fruit being always in demand for preserving and jelly-making by the thrifty housewife.

Among ornamental shrubs, the following will give bloom for most of the summer, among the earliest-flowering being the Spiræas, which begin to bloom early in May, and become a mass of white flowers. Two of the most satisfactory are Spiræa arguta and Spiræa Van Houttei. As these are under five feet in height, they may be planted near the house, and look well if several are grouped together. Following the Spiræas are the Lilacs. There has been such a marked improvement in Lilacs during the past few years that the old-fashioned kind is now surpassed by many of the newer ones, which vary much in color and have both single and double flowers; but, even if these cannot be obtained, there is no more popular shrub which blooms in the spring than the common Lilac, and it should not be difficult to get some from a friend. Then, there is the Tartarian Bush Honeysuckle, a hardy shrub, and a very free bloomer, which grows to about 10 feet in height. This also blooms in May. Some of the best shrubs which bloom in June are the common Mock Orange or Philadelphus, and the large-flowering species, which blooms a little later; the Snowball, and the High-bush Cranberry, the latter being a native species which is not appreciated as much as it deserves, as the leaves, flowers and fruit are all ornamental. The fruit remains on the bush most of the winter, and brightens up the grounds in winter very much. A shrub or small tree not often planted, but a very desirable one, is the Japanese or Tree Lilac. This has white flowers, and grows to a height of fifteen or twenty feet, and although it does not begin to bloom so young as the common Lilac, it is well worth planting. It blooms from the last of June to early in July. The last shrub which we shall mention is the large-flowered Hydrangea (Hydrangea paniculata grandiflora). This blooms during the months of August and September, and the immense panicles of flowers must be familiar to everyone. In order to succeed best, the Hydrangea needs plenty of



Virginian Creeper, covering a back porch and kitchen, turning an unsightly place into an attractive one, and making the kitchen cooler in the hot days of summer than it otherwise would be.



View of ornamental grounds, showing High-bush Cranberry in foreground.

cut back from time to time they can be kept well under control.

It is a mistake to plant trees too close to a house, as when they grow up they prevent a free circulation of air, and sometimes make the house too dark. Some of our native trees are among the best for planting, and there is no tree which in time will give such character to the farm home as the American elm. As it is a rapid grower and reaches a great size, it should not be planted within fifty feet or more of the house, and should be placed in such a position that when it grows

very desirable one, is the Japanese or Tree Lilac. This has white flowers, and grows to a height of fifteen or twenty feet, and although it does not begin to bloom so young as the common Lilac, it is well worth planting. It blooms from the last of June to early in July. The last shrub which we shall mention is the large-flowered Hydrangea (Hydrangea paniculata grandiflora). This blooms during the months of August and September, and the immense panicles of flowers must be familiar to everyone. In order to succeed best, the Hydrangea needs plenty of



moisture, and should be pruned back severely in the spring.

When planting either the trees or shrubs mentioned, or others, the breaking or dividing up of the lawn should be avoided as much as possible, as the planting and the lawn itself are much more effective when the trees and shrubs are set towards the corners, at one side, or at the rear of the lawn, and it is better to group them as much as possible, instead of having them dotted here and there, without any apparent relationship to each other.

Unfortunately, a hedge is a rare sight on a farm, and yet there is nothing which defines the limits of the home grounds as well as a hedge. A hedge is more effective along the side or back of a lawn than in front, as a hedge in front of the house lessens the effectiveness of a nice approach to it. A hedge should be planted far enough back from the edge of the lawn to leave room for a wide flower border between it and the lawn. If a narrow border is left, it will probably get narrower from year to year as the grass grows, and in time there will be little left. We should advise setting the hedge far enough back so that there will be at least six feet in width for a border. The Arbor-vitæ or White Cedar makes the most satisfactory hedge, and young trees can often be obtained near the farm. The best satisfaction is obtained from planting young trees about two feet in height, and it is important to get them with living branches to the ground, as, unless the branches come to the ground, the hedge will look ragged. As the Arbor-vitæ throws out roots readily along the branches, it may be planted deeper than some other trees, and hence, if it is not possible to get them with branches to the ground, they may be planted deep enough to bring them down. Although the Arbor-vitæ will succeed in most soils, it does best in good loamy ground, and we should advise a thorough preparation of it before planting. The trees may be planted in a single row about 18 inches apart, and the earlier in the spring they are set, the better the results will be. As the trees will probably be uneven in height if dug up in the fields or woods, they may be made the same height by cutting back the tallest ones after planting. Nursery-grown trees are to be preferred when they can be obtained.

For large grounds, the Norway Spruce makes an excellent hedge, being a rapid grower and presenting a fine appearance. The young trees should not be set so close as the Arbor-vitæ, three feet apart being near enough. The hedge will not be formed quite so quickly set at this distance, but it will be more permanent. The Buckthorns make excellent hedges, and if an evergreen hedge is not desired, the Cathartic and Alder Buckthorn are good substitutes. The soil should be kept well cultivated about a hedge during the growing season to get the best results.

Later we hope to make some suggestions and recommendations regarding the making of flower-borders and flower-beds, and the growing of flowers.

W. T. MACOUN, Horticulturist.  
Central Exp. Farm, Ottawa.

### Vegetables for the Farmer.

Now is the time to get ready for the vegetable garden. The first thought is, what ought we to have in our gardens as early vegetables, and how are we to succeed in growing them. For those that have proper hotbed sash—or the window storm sash will do very well—make hotbed any time before April 15th to sow early cabbage, cauliflower, tomatoes, celery, lettuce, etc. The hotbeds are very simple to those who know how to make and manage them, but the beginner scarcely knows where to start. The first thing is to know the size of your sashes. Suppose they are 3 by 6 feet, and you have four, that will make a nice bed, and will take two good loads of hot manure. Mark out your bed 8 feet by 14 feet; if the soil is not frozen, dig out about 9 to 12 inches deep. Put the manure in evenly to the depth of 15 to 18 inches at this time of the season; 2 feet, if made up in March. Have manure nice and damp, and tramp well. Now make your frame. Have back board 14 or 15 inches, front board 10 inches, side boards to raise 2 inches above back and front boards, to protect the sash from the wind; use 2 x 4 for cross bars for sash to rest and slide on. Have frame nice and square, so that the sash will fit and slide easily. Now put soil in to the depth of 6 or 7 inches—nice light, rich soil. If the soil is not rich enough, mix rotten manure well with it. Now put on the glass sashes, if you have them; if not, make sashes and cover them with factory cotton. Stretch tight, and tack with leather-headed tacks. Let them stand for three days. By this time fermentation has become quite active all through the bed, and the soil warmed through, and the weed seeds near the surface have germinated. Then remove the sashes, rake the surface thoroughly to kill the weeds, and make a smooth, fine seed-bed. Now have your seeds ready. If you live near a market, sow one sash with celery—Paris Golden Yellow. You can raise about 2,000 plants, and in the same sash you can sow

half a dozen cauliflower seeds. Dwarf Erfurt or Snowball, as they generally come out of the same bag. Sow cauliflower evenly all over the bed, then cover with back of rake, and tread the bed well after seed is sown. The cauliflower plants will be ready to prick out in boxes, or another bed, in about three weeks, and the celery will be nicely up. The shade of the cauliflower is a protection to the delicate little celery plants for the first stage of growth, rather than otherwise. One sash can be used for tomatoes, one for cabbage, and one for lettuce, and a row of Prizetaker onions for planting in the garden. Do not forget a few flowers for wife and daughters, or friends. Just one row in the bed of asters, petunia, phlox Drummondii and marigold, will make a nice show by August, when sown in a hotbed and transplanted. Now you have the hotbeds made and sown, be careful not to destroy



A Charles X. Lilac, showing how a Lilac should be grown to get the best results. Note that there are flowers quite to the ground.



The Large-flowered Hydrangea (*Hydrangea paniculata grandiflora*) is one of the most desirable hardy shrubs. This specimen shows how it should be grown with flowers to the ground. This is brought about by pruning.

your plants for want of air or ventilation. Every day the sun shines raise the sash 3 or 4 inches, back or front. Avoid letting the wind blow in on the plants, and use common sense as your guide. Those who have not hotbeds, but have a sunny window, can sow seed in boxes and place them in the window. Use boxes to suit your window. Never have the boxes more than three inches deep, and, if possible, make them of old boards, as young plants like to feed on decaying wood. Have soil same as for hotbeds, not too rich. When the plants are up, turn the boxes to the light every day. To keep plants straight, keep soil always moist, but not wet. Use the water at same temperature as the room. I have seen fine plants raised in window boxes. When in Parry Sound District last summer near Des-Lake, I saw a fine patch of cabbage, 3,000 just as good as any market garden near Toronto.

to had. The plants were sown in window boxes in April, and transplanted outside the last of May. The varieties of seeds I recommend are: Cabbage, Jersey Wakefield. Cauliflower, Dwarf Erfurt. Celery, early, Paris Golden; late, Giant Pascal. Lettuce to be transplanted outside, to be used from the hotbeds, Grand Rapids and Simpson's Black Seeded. Peppers, Long Red and Ruby King. Tomatoes, Red, Earliana and Dominion Day, Pink Plentiful. J. W. RUSH, York Co., Ont.

## POULTRY.

### Incubator Rules.

United States Farmer' Bulletin No. 236 thus summarizes its instructions regarding the running of incubators:

- Study your incubator.
- Acquaint yourself with all its parts.
- Read the manufacturer's directions for setting it up.
- Set it up carefully, and according to instructions.
- Never try to run an incubator in a drafty place, nor near a stove, nor where the sun shines upon it.
- Set fertile eggs only. Waste no effort on those that are doubtful.
- Learn how to trim and clean a lamp.
- Keep the lamps full, and the wick and tube clean.
- Avoid smoke.
- See that the eggs are clean and dry before setting them.
- Balance all eggs, large end up, a few hours before placing in the tray.
- Do not overfill the tray.
- Turn every egg the third day.
- Cool the eggs every morning.
- Be sure your hands are clean when handling the eggs.
- Test all eggs by the seventh day.
- Test again by the eleventh day.
- Test again by the fifteenth day.
- If the air space is too large, supply moisture; if too small, put a saucer of dry lime in the room, and run without moisture a day or two.
- Do not expect to learn all about the air cell the first hatch. You will learn that later.
- Do not disturb the eggs after the evening of the eighteenth day.
- Have a regular hour for incubator work.
- Do not tinker too much with the regulator.
- Get the adjustment right, and keep it so.
- Heat your machine and make your adjustment before placing the eggs in the egg-chamber.

### Feeding Young Chicks.

In "The Farmer's Advocate," of March 22nd, I gave some notes from Prof. G. M. Gowell's poultry farm at Orono, about half a mile from the University of Maine. Below will be found some particulars about the method of feeding the young chicks:

These were first fed upon the infertile eggs, which had been boiled, then ground in a meat-chopper, shell and all, and mixed with about six times their bulk of rolled oats, by rubbing both together enough to break the egg into small pieces. This was fed sparingly for two or three days in the litter and sand on the brooder floor. About the third day a mixture of hard, fine broken grains, such as cracked corn, wheat, millet and pinhead oats, was given as soon as the birds could see to eat in the morning—only a limited amount, however, that they might be ready for a good feed at ten o'clock when the rolled egg and oat mixture was placed before them for five minutes, in tin plates with low rims. Removing these, they scratched for a little of the fine broken grain. At 1 o'clock the hard grains were fed, as in the morning, and at 4:30 to 5 o'clock they were given all the rolled egg mixture they would eat till dark. When about three weeks old this mixture was gradually replaced by one made up of two parts by weight of good clean bran, two parts corn meal, one part linseed meal, and one part fine beef scraps, moistened with water—just enough to be crumbly. Hard broken grains were used all the way along, but the chicks grew faster with the mash, and it was used moderately. Grit and charcoal were freely provided, and by the partial use of hard food the digestive organs were kept normal.

By June the chicks were well started, and a change in the plan of feeding was made. Cracked corn, wheat and beef scrap in separate slatted troughs, with movable roofs, were placed where they could help themselves. Not more than one-fourth of the grain was wheat for the pullets, while in the cockered division only cracked corn and beef scraps were used. Grit, bone and oyster-shell were always supplied. There was no regular time for feeding, but the troughs were never allowed to get empty. There was no rushing, as is usual at feeding time; the birds ate when they felt like it, selecting any kind of grain they wished, and balancing their own rations. This winter the dry mash, like that fed during the winter, is to be added to the corn, and the troughs containing it will be placed in places sheltered from the wind. M. B. A.



## THE FARM BULLETIN.

According to a review of the bacon-curing industry in the Weekly Irish Times, Ireland has about twenty large and well-equipped factories, some of which handle about 2,000 hogs per week.

W. D. Scott, Superintendent of Immigration, Ottawa, is authority for the statement that the Doukhobors are the only foreign settlers coming into the Dominion who cannot be distinguished from Canadians when dressed in Canadian clothes.

A. W. Woodard, for the past five years Official Referee of butter and cheese at Montreal, has resigned to take up commercial work. The duties of the official referee consist of reporting on the quality of butter and cheese when there is any dispute between buyer and seller.

### Prouse & Innes' Sale of Clydesdale Fillies.

Prouse & Innes' second auction sale of imported registered Clydesdale fillies, was held at Woodstock, Ont., April 6th. Thirty-seven pedigreed animals were disposed of, at an average of very nearly \$284, the highest price, \$400, being paid by Thos. Berry, Hensall. Following is the list of sales:

Crissa, foaled 1904; Dr. J. D. O'Neil, London.....	\$275
Bonnie Princess, 1903; R. McClellan, Fergus.....	290
Oceana, 1904; Dr. O'Neil, London.....	200
Circassia, 1904; John Bickel, Walmer.....	210
Valeria, 1903; Thos. Berry, Hensall.....	400
Pera, 1903; Dr. O'Neil, London.....	290
Lady Lossit, 1903; Dr. O'Neil, London.....	310
Daisy, 1904; Dr. O'Neil, London.....	300
Clara, 1903; G. A. Brodie, Bethesda.....	245
Kastalia, 1904; D. J. Kembar, Avening.....	250
Athenia, 1904; J. T. Gibson, Clyde.....	325
Concordia, 1904; Dr. O'Neil, London.....	285
Nubia, 1904; Valentine Ficht, Orient.....	300
Lady Luck, 1901; Dr. O'Neil, London.....	300
Flossie Kirk, 1902; J. D. Arnold, Arthur.....	350
Astoria, 1903; S. D. Ferninger, St. Catharines.....	295
Betty, 1904; D. J. Kembar, Avening.....	360
Jacinta, 1903; David McRae, Guelph.....	235
Lily H. of Drum, 1904; S. Hicks, Centralia.....	345
Maggie IV. of Drum, 1904; R. C. Rogerson, Fergus.....	300
Formosa, 1904; John Brash, Ratho.....	270
Olympia, 1902; Dan McIntosh, Braemar.....	315
Flower, 1903; Dr. O'Neil, London.....	315
Devanha, 1903; Dr. O'Neil, London.....	240
Mania, 1904; Andrew Douglas, Strathroy.....	200
Oravia, 1904; R. Grundy, Clondeboye.....	245
Parthenica, 1905; Jas. Henderson, Belton.....	235
Andalusia, 1905; D. Innes, Brookside.....	355
Almora, 1904; R. Grundy, Clondeboye.....	215
Miss Symons, 1904; W. H. Howell, Berlin.....	240
Lady Bobgill, 1904; Dr. O'Neil, London.....	300
Miss Calder, 1903; Andrew Douglas, Strathroy.....	300
Queen, 1903; Dr. O'Neil, London.....	265
Winga, 1903; Jas. Hunter, Drumbo.....	290
Lottie, 1900; A. Williamson, Ingersoll.....	290
Marina, 1901; S. J. Prouse, Woodstock.....	300
Arcadia, 1904; Dr. O'Neil, London.....	330

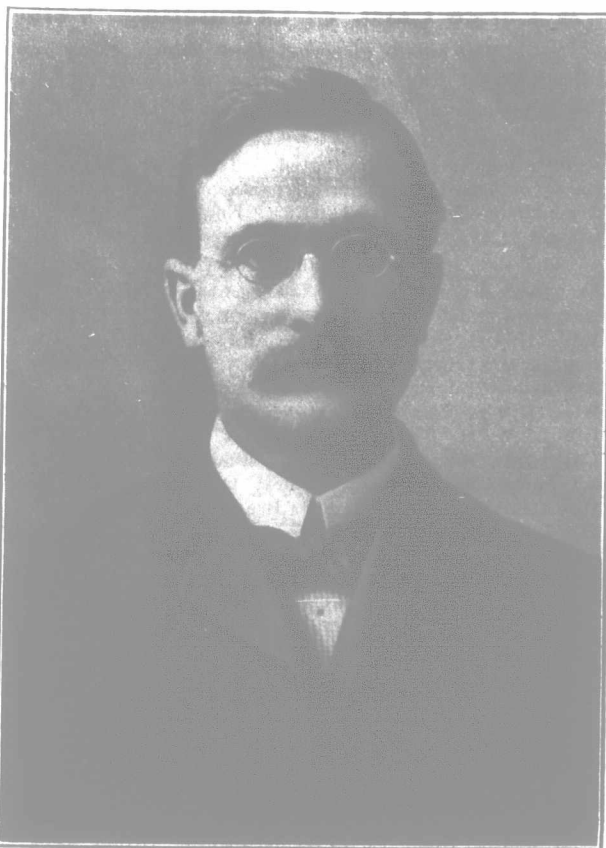
Average of 37 head .....\$284

### Interesting to Horse-breeders.

In our last issue was given a resume of one of the bills before the House amending the Ontario Agriculture and Arts Act. It was explained that the Act was being divided into three separate acts, one respecting agricultural societies, one respecting horticultural societies, and a third respecting the Provincial agricultural associations. We give herewith the gist of the two latter.

The main feature of the Act respecting horticultural societies is that it takes all such organizations out of relationship to the agricultural societies and puts them in a class of their own. It provides for their independent organization in towns, cities and incorporated villages. The sum of \$8,000 is set aside, subject to division among the horticultural societies of the Province. The objects of horticultural societies are fully set forth, and do not materially differ from those of the previous Act. There is a new basis for distribution of the grant, strictly in accordance with the amount of money expended for horticultural purposes during the preceding year. This Act comes into force February 1st, 1907.

The bill respecting agricultural associations provides for the continuance of all the organizations in the former Act, with the addition of the new association formed last year, namely, the Ontario Vegetable-growers' Association. A decided change, however, is being made in connection with the Canadian Horse-breeders' Association, a word or two in regard to which may be of some interest to horse-breeders. Some years ago the Canadian Horse-breeders' Association was organized, and their main work has been the holding of the Spring Stallion Show and the Spring Horse Show, the latter at the Armouries. The old Act provided for a President and one or two Vice-Presidents, and nine Directors. In order to increase the influence and scope of the Horse Show management, this association has gradually been taking in representatives from a number of local associations, until finally the number of directors had increased to about eighteen, and the breeders' representatives have felt that they have been more or less outnumbered in the association which was called the Breeders' Association, and which was supposed to be for breeders. This



F. C. Elford

Chief, Poultry Division, Ottawa, who has accepted the position of head of the Poultry Department of the Macdonald College, at St. Anne de Bellevue, Que.

resulted in trouble, and the election of a new Board, the number of which was strictly in accordance with the Act.

This old association, through the Toronto Horse Show, has accumulated quite a surplus. The Agricultural Department felt that it was important to have a breeders' association composed only of breeders. At the same time it was recognized that some of these local associations were important factors in the holding of the Toronto Horse Show. The outcome of the consideration of the whole question, as shown in the Bill, is this: It is proposed to change the name of the Canadian Horse-breeders' Association to the Canadian Horsemen's Association, leaving them free to take in any local association that they wish, and their main duty to be the holding of the Toronto Horse Show, or any similar work elsewhere; thus, they can continue without any Government grant, as they have a surplus of over \$5,000.

The Spring Stallion Show, and matters of that kind, are of interest only to breeders, and, therefore, it is proposed to organize a new association, to be called the Ontario Horse-breeders' Association, which will get its membership only from the breeders, and through which, it is presumed, any further grants will be made. The details, however, are yet to be worked out.

In the estimates is a vote for \$6,000 for spring stallion shows and investigations. It is expected that the bulk of that appropriation will be used in investigating the whole horse question this summer, with the hope of arriving at recommendations for future work in assisting this industry.

The new Act provides that each local Horse-breeders' Association shall make its own constitution, subject to the approval of the Minister, and that it shall have by-laws providing for the number of directors, their representation, and their mode of selection. This will enable each association, in conference with the Minister, to devise a method of organization that will be suitable in each case, and that may be subject to change on the approval of the Minister. Any change, therefore, will not require an amendment to the Act.

The bill provides for the incorporation of the Provincial Winter Fair (Guelph), the Eastern Ontario Live-stock and Poultry Association (Ottawa), and also for the organization of certain societies for the purpose of advancing some branch of agriculture, these societies not to be bodies corporate, but to be regulated in other particulars by the Act. Provision is also made for the organization of an advisory board on live stock, to advise the Minister regarding matters of interest to the live-stock industry. The organization of the board is provided for by order-in-Council.

### Two Appointments to the Manitoba Agricultural College.

W. J. Rutherford, B.S.A., a graduate of the Ontario Agricultural College, Guelph, now in the Animal Husbandry Department of the Iowa State College at Ames, has been appointed Professor of Agronomy at the Manitoba Agricultural College, Winnipeg. Prof. Rutherford very capably filled the position of Resident Master while taking the major part of his junior and senior work at Guelph, and will be a strong man on the staff of the new institution. Another excellent appointment is that of Dr. Fred Torrance, of Winnipeg, as lecturer in veterinary science. He is a resident for many years in Manitoba, a graduate in Arts and Comparative Medicine from McGill, and well known as a lecturer to Farmers' Institutes.

### Fruit Institute Meetings, Niagara District.

Editor "The Farmer's Advocate":

Acting as Secretary at several of the meetings of the Fruit Institutes, held by the Niagara Peninsula United Fruit-growers' Association, at Beamsville, Jordan, St. David's, St. Catharines, and other points, I took a few notes on the various addresses. The meetings were well attended in most cases, and the questions asked and discussions were most interesting. The two speakers, Willis T. Mann and J. S. Woodward, are both good, level-headed, practical fruit-growers, from Western New York, and have certainly given the growers in this locality much valuable information.

The roads, in general, were heavy, or else, in some instances, the halls would not have been large enough. Many growers are now realizing as never before the necessity of spraying, and the advantages of growing fruit of superior quality. The systems of culture and heading of trees are very different to what they were a few years ago.

### APPLE CULTURE.

At the evening meeting, Mr. Mann took as a subject "Apple Culture." Apples as a fruit are of the greatest intrinsic value. They have become more of a staple product than any other fruit, and are considered a necessity by rich and poor alike. A few years ago apples were considered an unprofitable crop in many localities, while to-day in his section (Western New York) farms are now valued by the net income derived from the apple orchards thereon, or their adaptability to produce a good apple orchard. Many orchards have averaged from \$500 to \$1,000 of fruit an acre in a single season. The last census of the United States in 1899 gave 201,000,000 trees as the number in actual bearing at that time; these produced 175,000,000 bushels.

The increased profit of late years, and consequent increase of interest, has resulted partly from the inroads of the San Jose scale and fungous diseases, such as the "apple scab." These necessitate constant and careful spraying, and have wiped out the small orchards and isolated trees, and put apple-growing on a commercial footing. The market demands good fruit, and buyers readily pick up a good article at a remunerative price, and will enter the districts where apples are grown and compete with each other in buying. To-day there have been radical changes made in care and method of culture. His system is to get two-year-old nursery stock of medium height, well rooted, head them about 2½ feet from the ground, allow the lower branches to remain, prune very little—just enough to shape the trees—give thorough cultivation, and spray systematically. The orchard he plants on the filler system. The desired distance of trees apart for certain varieties is 40x44 feet; filling in between with other varieties makes the trees 20x22. The intervening trees are cut out when the limbs commence to meet and crowd. By this system he has had an orchard now seven years planted, which has produced crops for three successive years, and which the last season produced 600 bushels on eight acres. Excessive pruning when the trees are small tends to promote wood growth. Then when trees are larger, low heading is practiced by keeping the trees pruned back at the top, as the tall apple orchards cannot be effectively sprayed and leave a margin of profit. Mr. Mann prefers to grow the apples of quality, for example, Spitzenberg, which is one of the finest, but is often subject to blight, and has become classed as a "run-out" variety by some. Such varieties, if sold with others of poorer quality, will help the sale of the whole lot, and if properly sprayed and pruned, when old, to admit sunlight, the fruit is of excellent size and appearance.

### COVER CROPS.

The use of cover crops in orchard management was a subject handled by Mr. Woodward, who introduced it by giving data from a bulletin of the Cornell Experiment Station, which estimates that in an average orchard in twenty-five years there is removed from the soil by the trees, per acre, potash equal to that obtained from twenty tons of unleached hardwood ashes, phosphoric acid equal in amount to that in fifteen tons of good phosphatic manure, and nitrogen equal to that in nineteen tons of nitrogenous manure. Phosphoric acid and potash, if the supply is short in the soil, can be supplied only by manures containing these, while nitrogen may be supplied by the use of cover crops, such as the vetches and clover, which gather the supply from the air.

The advantages of cover crops are many. Constant cultivation tends to produce growth of trees. A cover crop checks the growth of tree and helps to ripen the wood. Then in the fall the leaves of the trees drop to the ground, and as the leaves contain much more plant food than the fruit, it is necessary to retain these. The cover crop will hold them; otherwise they are blown away and lost, if the orchard is exposed to sweeping winds and bare cultivation followed. The cover crop also is a protection to the ground; it will of itself retard frost from entering, and much more does it do this when it holds the snow. It will also add humus to the soil, which is necessary to keep the heavy soils from baking, and make the light soil more retentive. It helps the soil to hold the water necessary for plant growth, also the plant food. In many localities soil would wash, while the cover crop will prevent this, and at certain seasons of the year, as late fall, when it is rather wet, and early spring, this cover crop will take up much of the soluble plant food which would leach away, and hold it. Thus it becomes available to the trees after the cover crop is plowed under.

The most suitable cover crop as yet tried is hairy



vetch, which winters well and grows very rank early in the spring. Crimson clover often does not winter well, so Mammoth Red clover is used. If the orchard has been properly cultivated to retain moisture, this can be sown the middle of July, and will grow and winter well, making a good growth the following spring. Cow peas are sometimes used with success. The cover crop has a tendency to dry up the land early in the spring, by using up the moisture, so if left too long before plowing under it may be injurious. This should be guarded against. Rye is also useful. On account of its hardness it can be sown very late in the season. It gathers no nitrogen from the air.

#### PRINCIPLES OF FRUIT-GROWING.

Methods of fruit-growing may vary, said Mr. Mann, but the principles are the same. We are all dependent on air, heat, sunlight, water and soil.

Plants breathe carbonic-acid gas from the air through the leaves, and give off oxygen, the carbon uniting with the minerals in solution in the sap gathered from the soil by the roots, and forming starch, which nourishes the tree. Air also makes soluble the inert plant food in the soil. Shelter-belts or wind-breaks modify the force of the wind, while drainage, humus and tillage help admit the air to the soil. Heat is also necessary, as this aids chemical changes in the plant and in the soil. Sunlight is also absolutely essential, and leaves cannot perform their functions without sunlight. The effect of this is best seen in a bush or dense apple orchard—the life of the tree is at the top; the lower shaded branches die.

The water is the conveying medium between the roots and the branches. It is necessary to have water to bring the plant food in solution before the tree roots can absorb it; an excess in the soil is harmful often as well as a scarcity; absence of water causes death, by stopping the functions of the tree.

In planting we must have a suitable soil; we must give room, so that the trees do not shade each other, and if best results are to be obtained, the sunlight must have free access to all branches; therefore, the necessity of pruning.

The speaker advocated the low-heading of trees, as the flat, low head admits sunlight, is easier to spray, easier to harvest from, and when sunlight enters, good, well-colored fruit will result, if the soil and cultivation are right.

G. A. R.

#### James Boden Comes West.

Mr. James Boden, who was in charge of the Reford farm (now Macdonald College), at Ste. Anne de Bellevue, for fourteen years, has become manager of Donland's farm (650 acres) in York township, near Toronto, owned by W. F. Maclean, M.P. Mr. Boden will organize it as a high-class dairy and pure-bred stock farm.

#### A Large Class of Graduating Vets.

A large batch of new-fledged veterinarians were turned out of the Ontario Veterinary College this year. Forty-four years ago, when the College started, it had 12 students; now it has nearly 300, and upwards of 3,000 students have graduated. The present graduating class comprised 103 from all parts of America, from the Argentine, Trinidad, Jamaica, England, Scotland and Ireland.

The list of graduates and prizewinners follows:

Cecil Scott Anderson, Waterford, Ont.; Herbert Anderson, New York City; Artie B. Angell, Taneytown, Md., U.S.; Stewart W. Armitage, Manitou, Man.; George S. Arnett, Knowlesville, N.Y., U.S.; Howard B. Atkinson, Edgeley, Ont.; J. S. Atkinson, Marinette, Wis., U.S.; Charles E. Attale, Port of Spain, Trinidad, B.W.I.; W. H. Barrett, Port Dover, Ont.; John P. Beck, Cavetown, Md., U.S.; Alder A. Black, Searlton, P. E. I.; James Scott Bone, Paisley, Ont.; Harry H. Berry, Brantford, Ont.; Howard B. Brady, Millersville, Pa., U.S.; John F. Bracey, Rockwood, Ont.; Frank T. Burnett, New York City, U.S.; Van. V. Botkin, Muncie, Ind., U.S.; John G. Buie, Michel, B.C.; Frederick T. Cairns, Forest, Ont.; John L. Carolan, Dobb's Ferry, N. Y., U.S.; Earl H. Carter, Toledo, Ohio, U.S.; Charles M. Casey, Syracuse, N.Y., U.S.; Edwin B. W. Cavell, Howell, Mich., U.S.; Françoise de F. L. Chaumont, Oak River, Man.; Victor V. Christie, Island Brook, P. Q.; R. E. Christopher, Armstrong, Iowa, U.S.; Donald L. Clark, Delhi, N.Y., U.S.; James Fielding Cottrill, London, Eng.; Thomas F. Craig, Niagara Falls, N.Y., U.S.; Glenn W. Cronkite, Alma, Mich., U.S.; Volney Manning Curry, Leslie, Mich., U.S.; Daniel J. Cronin, Chelsea, Mass., U.S.; E. Beverley Cowan, Orono, Ont.; J. Graham Davidson, Niagara Falls, Ont.; Amos H. Dyson, Jamestown, N.Y., U.S.; C. Edgar Edgett, Moncton, N. B.; John A. Espindola, La Plata, Argentina; Col. E. Edmunds, Ardsley, N.Y., U.S.; Wm. Austin Ferr, Put-in-Bay, Ohio, U.S.; Louis P. Foss, Cincinnati, Ohio, U.S.; Royal G. Flowers, Lyndonville, N.Y., U.S.; A. Scott Gebbie, Howick, P.Q.; George H. Gerlach, Elmore, Ohio, U.S.; Eugene L. Hannon, Pittsfield, Mass., U.S.; Charles Edward Hayes, West Shefford, P.Q.; Charles Head, Buffalo, N.Y., U.S.; A. Frank Hill, St. Johnsbury, Vt., U.S.; Arthur D. Howden, St. Louis Station, P.Q.; Aubrey G. Husband, Wawanessa, Man.; Frederick Hutchinson, Cheltenham, Ont.; Joseph Johnson, Stoughton, Wis., U.S.; Chas. A. Joynt, North Augusta, Ont.; James Jones, New Liskeard, Ont.; Robert Kenwell, Mount Eaton, Ohio, U.S.; Henry F. Kirkby, Walton, Ont.; Judson Kellogg, Ripon, Wis., U.S.; Thos. J. Kain, Tottenham, Ont.; R. Harry Leadley, Cookstown, Ont.; W. H. Tulloch Lee, Boissevain, Man.; Beverley M. Leigh, Columbus, Miss., U.S.; C. Douglas MacCormack, Jamaica, B.W.I.; Alexander McFadzean, Waldemar, Ont.; Walter H. McKenzie, Oakville, Man.; Donald McMillan, St. Louis de Gonzague, P.Q.; Charles H. McNab, Rose-

mont, Ont.; C. O. Maconachie, Guelph, Ont.; Wm. Frank Madill, Orillia, Ont.; Stanley Thomas Martin, Winnipeg, Man.; C. Ernest Miller, Peru, Ind., U.S.; Earl W. Miller, Rockford, Ohio, U.S.; John Joseph Montgomery, Brantford, Ont.; C. A. Minshall, Veragua, Wis., U.S.; Milton E. Muma, Arkona, Ont.; Archibald S. Miller, East Aurora, N.Y., U.S.; William H. Moffatt, Picton, Ont.; Reginald Edward Murray, Cooksville, Ont.; William G. Moore, Petrolia, Ont.; Maynard S. Nighbert, Pittsfield, Ill., U.S.; William T. Patton, Paris, Ont.; Harry W. Pegg, Holland Landing, Ont.; William Reid, Nassagaweya, Ont.; James Marshall Reilly, Rupert, P.Q.; John Martin Rice, Salhouse, Norfolk, Eng.; Chas. D. Ritter, Allentown, Pa., U.S.; Albert B. Ritter, Pottsville, Pa., U.S.; Abram W. River, Cresco, Iowa, U.S.; George Avery Root, Milville, N.Y., U.S.; Charles W. Ruttan, Wingham, Ont.; Henry W. Sheurer, Brighton, Ill., U.S.; Earle F. Schofield, Greenwich, Conn., U.S.; William F. Sirett, Glendale, Man.; Clarence D. Smith, Justus, Ohio, U.S.; William Cyril Steele, Grenada, B. W. I.; Clark E. Swail, Randolph, Que.; Herbert R. Sharp, Moosomin, Sask.; D. Crozier Tennent, London, Ont.; John A. Thomas, Shreve, Ohio, U.S.; Thomas Thompson, Oakdale, Ont.; Hosea B. Turney, Marysville, Ohio, U.S.; George S. Thorneywill, Charlottesville, Va., U.S.; Samuel S. Westgate, Pickering, Ont.; Andrew Fenwick Wilson, Portage la Prairie, Man.; A. Newton Wilson, Howick, P.Q.

#### Municipal Telephone System.

A bill has been introduced by Hon. Adam Beck into the Ontario Legislature, intended to provide for the establishment of local municipal telephone systems. It enables twenty or more subscribers to secure for themselves at the lowest cost all the advantages of a telephone system upon petitioning any municipality for it, and stating their intentions as to location and so forth. The municipality may then proceed at the expense of the subscribers to establish the system. This would be vested in the municipal corporation in trust, as would all the property of the system, and work done for it would be deemed to be done by the corporation, which might exercise any or all of the powers conferred on corporations under sections 571, 572 and 573 of the consolidated municipal act. The whole cost of the system would be defrayed by the subscribers alone, and any default would be levied on them. Charges against the subscribers might be collected by action as an ordinary debt, or added to the collector's roll as taxes, and so collected. An important clause provides that with the consent of the Postmaster-General the municipality might agree with the postmaster for the establishment of the switchboard of the system at the post office. The Lieutenant-Governor in Council would fix a standard of requirements for such municipal telephone systems. By consent they might be extended to other municipalities or connect with other systems, owned or controlled by any individual, company or municipal corporation.

## MARKETS.

### Toronto.

#### LIVE STOCK.

Cattle—Prices were about steady last week. Exporters ranged from \$5 to \$5.25 for choice; \$4.70 to \$4.90 for medium; bulls, \$3.75 to \$4.25. Butchers' were in brisk demand. Prices were firm, \$4.75 to \$5.10 for choice; \$4.50 to \$4.70 for good; medium, \$4.15 to \$4.40; \$3.75 to \$4 for common; cows, \$3 to \$4.25; bulls, \$3.25 to \$3.50; canners, \$1.50 to \$2.25. Demand for stockers not so good, about 300 changed hands. Short-keep feeders, \$4.30 to \$4.60; heavy feeders, \$4 to \$4.25; stockers, \$3.40 to \$3.75; common, \$3 to \$3.25; rough to common, \$2.75 to \$3; stock bulls, \$2 to \$2.50; calves, \$3.50 to \$7.25 per cwt.

Sheep and Lambs—Receipts light, and market stronger. Export ewes, \$5.25 to \$5.75; bucks, \$4.50 to \$5 per cwt.; lambs, \$6.50 to \$7.75 per cwt.; spring lambs, \$4 to \$7 each.

Hogs—Deliveries light, with keen demand. Selects, \$7.25; lights and fats, \$7.

#### HORSES.

The demand for good horses in all classes is still as great as ever, but prices remain about the same as quoted last week. Good heavy-draft teams are scarce at high prices. W. R., a dealer, outside of the city, bought two pairs of drafters at \$600 and \$480 respectively. At the regular sale in the Depository, there was a large attendance of outside dealers. The bidding was, as a rule, spirited. Prices for the ordinary kind were good. Single roadsters, 15 to 16 hands, \$125 to \$160; single cobs and carriage, \$175; matched pairs and carriage horses, 15 to 16.1 hands, \$300 to \$550; delivery horses, 1,100 to 1,200 lbs., \$100 to \$175; general-purpose and express horses, 1,200 to 1,350 lbs., \$175 to \$200; draft horses, 1,350 to \$1,750 lbs., \$180 to \$220; serviceable second-

hand workers, \$60 to \$90 each; serviceable second-hand drivers, \$60 to \$90 each.

Butter—New-milk butter is more plentiful. Good demand for creamery and dairy prints at 26c. to 27c.; tubs, 20c. to 21c.; dairy lb. rolls, 22c. to 23c.; large rolls, 20c. to 21c.

Cheese—Quiet; prices steady at 13½c. for large, and twins, 14c.

Eggs—Deliveries large; prices easy at 16c. to 17c., and 14c. for storage.

Poultry—Choice dry-plucked chickens range from 16c. to 18c. per lb., and 13c. to 14c. for thin; hens, 10c. to 12c.; turkeys, 18c. to 22c. per lb.; ducks, 16c. to 18c.; geese, 14c. to 16c.

Potatoes—Ontario are selling at 65c. to 75c. per bag.

Hay—Trade slow. Baled, \$8 to \$8.50 for pure timothy; \$6 to \$7 for No. 2 timothy, and \$5 to \$6 for mixed.

Beans—Hand-picked, \$1.80 to \$1.85; prime, \$1.70 to \$1.75; undergrades, \$1.40 to \$1.50.

Honey—White clover combs per doz., \$1.90 to \$2; strained, 8c. to 8½c. per lb.; buckwheat combs, 10c. to 11c.; strained, 3c. to 3½c.

Vegetables—Turnips, 25c. per bag; onions, 81 per bag; cabbage, 40c. to 50c. per bag; carrots, 40c. per bag.

#### BREADSTUFFS.

Grain—Wheat steady; Ontario, No. 2 white, 75c.; Goose, 71c. Manitoba—No. 1 northern, 83c. Oats, No. 2 white, 36c., on track at Toronto; No. 2 mixed, 35c., on track at Toronto. Barley, malting, 48c. to 49c.; feeding, 45c. to 46c.; peas, 75c. per bushel; buckwheat, 54c. per bushel; rye, 70c. per bushel.

Feedstuffs—Ontario—Bran, \$18.50 per ton; shorts, \$19.00 to \$19.50. Manitoba—Bran, in bags, \$19.50; shorts, \$20 to \$25.

#### SEEDS.

Brisk enquiry for red clover and alsike. The following are seedsmen's selling prices: Red clover, \$8.10 to \$9.30; alsike, extra fancy, \$7.50 to

\$9.60 per bushel; timothy, \$1.75 to \$2.40 per bushel.

#### HIDES AND TALLOW.

E. T. Carter & Co., wholesale dealers in wool, etc., report hides firmer, and have been paying: Inspected hides, No. 1 steers, 11c.; No. 2 steers, 10c.; No. 1 cows, 10½c.; No. 2 cows, 9½c.; country hides flat, 8½c.; calf skins, No. 1 selected, 14c.; sheepskins, \$1.45 to \$1.55; horse hides, \$3 to \$3.25; tallow, rendered, 4½c. to 4¾c.; wool, unwashed fleece, 15c. to 16c.; washed, 25c.

#### Montreal.

Live Stock—English market for cattle irregular. Shipments of live stock from Portland, Me., and St. John, N. B., during the last week of March, amounted to 3,023 cattle and 658 sheep, against 1,552 cattle the previous week. For fancy beef, prices advanced to the highest point of the season, 6c. being reported in a number of instances. The most of the fancy stock, however, ranged from 5½c. to 5¾c., the choice being 5¾c. to 5¾c., and the fine, 4½c. to 5¾c.; good cattle, 4½c. medium, 3½c. to 4c.; common, 2½c. Very few sheep on the market. Prices ranged from 86 to 88, according to quality. Calves fairly numerous, the fine stock being in demand at \$10 to \$15 each; young stock, \$2 to \$4 each. Milch cows from \$25 to \$50 each. Hogs, 7½c. to 7¾c. for really select stock, mixed being, however, obtainable at around 7½c. The outlook for live hogs continues strong.

Horse dealers report the supply quite light, and good animals very hard to obtain. Heavy-draft, 1,500 to 1,700 lbs., are quoted at \$250 to \$300 each; light draft or coal-cart horses, 1,100 to 1,500 lbs., \$175 to \$225; express horses, 1,100 to 1,300 lbs., \$150 to \$200 each; choice saddle or carriage horses, \$350 to \$500, and broken-down animals, \$75 to \$120 each.

Butter—The market is firm. New butter will not begin to arrive freely until

## DOLLAR MAKING

The art of saving money is the art of making money. To start saving money requires a deposit of \$1 only in

### The Sovereign Bank of Canada

Deposits of \$1 and upwards received.

Interest Paid 4 Times a Year

Put your money in a place where you can get it when you want it.

57 BRANCHES

after Easter, and, meantime, it is in good demand at from 23½c. to 23¾c., according to quantity, for best. Held creamery ranges all the way from 19c. to 22c., wholesale, according to quality, Manitoba dairy, 16c. to 17c., and good Ontario dairy, 18c.

Maple Products—Syrup, 6½c. per lb., in kegs, or equal to about 85c. per gallon. Sugar, 12c. per lb.

Cheese—The last large lot sold at 13½c. to 13¾c. With old cheese selling at these figures, it is a little surprising to find factories in Eastern Ontario contracting for the April make at such high figures as 13c.

Eggs—Dealers claim to be buying in the country at 14c. They are selling at 16½c., wholesale, which leads one to think that country prices are rather higher than given.

Dressed Hogs, Provisions, etc.—The market for dressed hogs is naturally firmer in tone, in sympathy with the ad-



# THE CANADIAN BANK OF COMMERCE

Paid-up Capital, \$10,000,000. Reserve Fund, \$4,500,000

HEAD OFFICE, TORONTO

B. E. WALKER, General Manager ALEX. LAIRD, Asst. Gen'l Manager

BRANCHES THROUGHOUT CANADA, AND IN THE UNITED STATES AND ENGLAND

A GENERAL BANKING BUSINESS TRANSACTED

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Every facility afforded Farmers for their banking business. Sales Notes cashed or taken for collection.

BANKING BY MAIL.—Deposits may be made or withdrawn by mail. Out-of-town accounts receive every attention.

advance in the market for live hogs. At the same time there does not appear to have been any actual advance in prices, fresh-killed abattoir being quoted at 9 1/2c. to 10 1/4c., and country-dressed at 8 1/2c. to 9 1/4c. Hams are in good demand, and prices are 13c. for extra large, weighing 25 lbs., and upwards; 13 1/2c. for large, 18 to 25 lbs.; 14c. for medium, 12 to 18 lbs., and 14 1/2c. for extra small sizes, 8 to 12 lbs. Bacon is also in active demand, prices being now 15c. to 16c. for smoked choice, and 12c. for green. Barrel pork is firm, and selling well at \$20 to \$22.50.

Potatoes—Carloads, on track, are selling at 60c. to 65c. per 90 lbs., and dealers are selling in broken lots at 70c. to 75c., and occasionally at 80c. for choice stock, in bags of 90 lbs., delivered into store.

Seeds—Prices for red clover show a decline of about 25c., dealers paying now \$7.25 to \$7.75 per bushel of 60 lbs., country points, alsike being \$4.50 to \$6.75. Timothy is steady, at \$2.75 to \$3.75 per 100 lbs., and is still arriving in fair quantities. Flaxseed is \$1.20 per bushel, Montreal.

Grain—The market for oats has advanced. The firm tone has been im-

parted by the news that export orders are now being worked from Ontario points. Locally, however, quotations are

unchanged at 37 1/2c. to 38c. for No. 4, store; 38 1/2c. to 39c. for No. 3, and 39 1/2c. to 40c. for No. 2. Manitoba wheat is

still quoted at 90c. for No. 1 northern, store. Ontario white wheat is now quoted at 84 1/2c. store.

Hides—The quality of the beef hides shows considerable improvement of late. Prices continue at 11c., 10c. and 9c. per lb., for Nos. 1, 2 and 3, respectively, tanners being charged an advance of 1/2c. on these prices. Sheep skins are now \$1.15 to \$1.20 each, and clips, 10c. each, the difference being made up in the value of the wool. Lamb skins, young, are 10c. each. Calf skins are 13c. per lb. for No. 1, and 11c. for No. 2. Horse hides are steady at \$2 each for No. 1, and \$1.50 for No. 2. Tallow is 4 1/2c. per lb. for rendered, and 1 1/2c. to 2 1/2c. for rough.

Feed—Prices are steady at \$19 to \$20 per ton for bran, and \$21 for shorts, in bags.

### British Cattle Market.

London.—Cattle are quoted at 11c. to 12c. per lb.; refrigerator beef, 9c. per lb.; sheep, dressed, 15c. to 16c. per lb.; lambs, 17c., dressed weight.

The Union Stock-yards, Toronto Junction, will, hereafter, have two markets weekly—on Monday and Thursday.

## SUN LIFE ASSURANCE CO. OF CANADA.

Evidence Before Commission Emphasizes Its Strong Position and Conservative Methods.

About Two Million Dollars Better Off Than It Claimed to Be.

### COMMENTS BY THE COMPANY.

As some time may elapse before the companies will be heard before the Insurance Commission, the managers of the Sun Life Assurance Company desire to refer, briefly, to points regarding that office which have been brought out in the examination of the officers of the Insurance Department.

#### INVESTMENTS OUTSIDE OF CANADA.

In 1903 and 1904, extended negotiations took place between the Finance Minister, the Superintendent of Insurance and the United Canadian companies, with regard to extension of their investment powers. The Minister expressed his willingness to eliminate the restrictions on the amount of investments outside of Canada, if certain other changes were made, and it was fully believed that a bill to this effect would be introduced by the Government in the session of 1904. For reasons brought out before the Commission, however, this bill was postponed from time to time, and has even now not been brought forward. Acting on the belief that the law was about to be changed, the Sun Company increased its American holdings. This, of course, it should not have done, although, under the circumstances, it perhaps was slightly excusable. When the session passed without the expected bill being brought on, the company wrote to the Minister of Finance, expressing its regret, and frankly stating that it had been led into increasing its American holdings in view of the expected amendment. The officers told the superintendent that they would loyally endeavor to reduce the excess of American securities, although this would probably result in their having a large amount of uninvested funds on hand, as Canadian securities that are thoroughly safe, and at the same time profitable, are somewhat scarce. How the company fulfilled its promise may be seen from the following figures, given in his evidence by Mr. Fitzgerald:

Dec. 31, 1904, excess of foreign investments over legal limit	\$467,109
Dec. 31, 1905, margin within legal limit, foreign investments	112,087
Cash in banks, Dec. 31, 1903	145,000
Cash in banks, Dec. 31, 1904	424,000
Cash in banks, Dec. 31, 1905	950,000

#### SECURITIES WRITTEN DOWN.

The company has been so remarkably

successful with its investments of recent years that we have felt that it can afford to be unusually conservative. We have always considered it our duty to make as good terms as possible when purchasing securities, and in this way, besides making handsome cash profits, have obtained large amounts of bonus stocks. At the end of 1904, some of these had become sufficiently valuable to justify us in placing them in our published list of assets. We were thus in a position to increase both our published assets and surplus by large amounts. The question arose whether we should not take a conservative course, and while transferring some of the new securities from the inactive or contingent list to the published list, at the same time transfer from the published to the inactive list some others, which, while not bad, were yet not really gilt-edged. In other words, instead of taking credit for the entire amount of these new securities, as an addition to our assets, we proposed to use them in part to write down some other securities by merely substituting the new assets for the old to that extent in the published list. This was beyond question a prudent and conservative course, and its effect was to reduce our published surplus by at least \$300,000 below what we could have claimed had we acted otherwise. The criticisms which have appeared in this connection upon the evidence as brought out by the Commission, are due to an entire misconception. The course followed was merely in keeping with our ambition to be at all times better than we actually claimed to be.

From the fact that the securities named were "written down," or rather, transferred to the inactive list, it must not be supposed that they are bad debts. On the contrary, arrangements have already been made to sell about two-thirds of the entire amount at prices which will save the company from any loss whatever. Mr. Blackadar distinctly stated in his evidence that these securities were not necessarily bad debts at all.

But in any case there is nothing new in all this. To refer to it as a "disclosure" brought out by the Commission is an error. The facts have all along been open to the public. Any one who turns to the Insurance Blue Book, for 1904, will find, on page 369, in the company's annual statement, under the heading of "Synopsis of Ledger Accounts," the whole transaction clearly set forth in unmistakable language.

#### SUPPOSED SALE OF ILLINOIS FRACTION STOCK TO DIRECTORS.

This is a mare's nest. There was no such sale as supposed at all. The facts are as follows: In December, 1904, the company had an opportunity to buy \$580,000 of this stock on very favorable terms, the proceeds to be paid in bonds. The company already owned a very large amount of this same stock, and it was not desirable to materially increase its holding, even though the terms were attractive. Some of the directors had expressed a desire to take a portion of the stock on precisely the same terms as the company, and it was understood that the block would be divided. By error, however, the directors were not told when the transaction was about to be completed, and the company took up not merely its own share, but those of the directors. This was on Dec. 31, 1904. The error was discovered within a few days, and was immediately corrected by the directors taking from the company their shares, and merely reversing the entries. This was not a sale, but a mere correction of an error, which had inadvertently been made a few days previously. It did not involve any question of either profit or loss to the company. The facts are not disputed, but on the contrary, were clearly stated by Mr. Blackadar in his evidence. No injury whatever accrued to the company, which had merely parted with some of its bonds for a few days, holding the stock instead thereof for that time. Absolutely no change whatever took place during those days in the value of the stock. As far as known, not one share of stock had been sold in the interval, and no development of any kind had occurred. Of the \$580,000 of stock, \$223,100 was taken by the directors, and \$356,900 remained with the company. In extenuation of this error, it should be remembered that it happened on Dec. 31, when the staff are more busy than on any other day of the year. We emphatically reiterate that the entry was a mere correction of a mistake, and nothing else, and that the directors derived absolutely no advantage beyond what they would have received had they taken up their stock ten days previously, as intended.

It must also be remembered that just at that time the company was being criticised by the Insurance Department for holding too large an amount in American securities, and was endeavoring to reduce the volume of such holdings in order to comply with the law.

#### INACTIVE ASSETS.

We have been reproached with having "silent assets," or bonus stocks. We certainly have them, and are very proud of having them, and our policy-holders also should be remarkably well satisfied that we have them. Their possession merely shows that we occupy a vastly stronger position than we have ever publicly claimed.

While these inactive assets have not been advertised or included in our published lists, no secret has been made of their existence, and Mr. Blackadar testi-

fied that detailed lists had been furnished to him both last year and this year, and that these securities had been checked exactly as the other securities of the company. He produced statements of these securities which had been furnished by the company to the department. He admitted that to the extent of their value, the company was that much better off than it claimed to be, and that a valuation of this contingent fund made for the department by the company in November last amounted to \$1,968,000. The par value of the securities exceeds \$5,000,000.

#### STRENGTH OF THE COMPANY.

In the year 1905, the profit made by the company from all sources amounted to \$1,341,371.80. Of this amount, \$166,541 was paid to policy-holders, whose policies were entitled to participation in that year. Of the balance, \$616,541 was set aside to complete the placing of all reserves on the three-and-a-half-per-cent. basis, and \$561,252.50 was added to the published surplus, bringing the total surplus claimed up to \$1,735,698.59, over all liabilities and capital stock, even on this severe standard of valuation. The evidence before the Commission has now brought out that even these figures, splendid though they are, tell but part of the story, for the company is really about two million dollars better off than even it claimed to be.

This highly-prosperous condition has already benefited our policy-holders, both as regards security and profitability. The large surplus makes the company one of the most powerful financial corporations on the continent in proportion to its size, and when to this we add the two millions of inactive securities, it is seen to be a veritable tower of strength. In regard to profitability, the company has been able to make the change to the three-and-a-half-per-cent. basis with comparatively little hardship to the policy-holders. The total amount which has been set aside for the increase of its reserves on old policies since the passing of the Act of 1899 has been \$1,186,111.41, and less than one-sixth of this amount has been raised by reduction of the profits of policy-holders, more than five-sixths having been obtained from profits on the company's investments. Moreover, the basis for the distribution of cash profits in 1905 was higher than for 1904, and that for 1906 in its turn higher than for 1905, so that the profits being paid are already back on a highly satisfactory basis, even after complying with the change in the law, while the present strong position of the company warrants some enthusiasm as to what the future profits will probably be.

The management consider that the facts brought out before the Commission, when understood, reflect the highest credit upon the company, and are the subject of legitimate pride. The probing into the affairs of the Sun Life has but revealed greater strength and very conservative methods.





## Life, Literature and Education.

### Decision of Debate.

The decision in the recent debate, "Resolved that a High-school Education Qualifying for a Teacher's Certificate is of More Advantage to a Farmer than an Education Qualifying Him for a Diploma from a Business College," has resulted in a majority for the Affirmative. . . Accordingly, one of our Society Pins has been sent along with the regular prize to Mrs. Hunt, the writer of the first-prize essay on the Affirmative.

Next in order come the essays by our critics. We shall give a prize for the best criticism on the debate, submitted to us not later than the 28th day of April. Kindly write us at once. Your criticism will be a help to the writers of the essays in the debate, and a help to yourself, since, in order to write any criticism, you must exercise the faculty of balancing, of judgment—one of the most important, perhaps, of all the faculties to him who would be "individual." We trust we shall have a brisk response in this competition.

### New Members.

We have entered the names of all who were interested enough to write re decision of debate on our list as members of our Literary Society, and will look to each for co-operation and assistance whenever possible in the work of the Society.

### Our Tennyson Competition.

#### NEW BRUNSWICK CARRIES OFF THE FIRST PRIZE.

It is with much pleasure that we give you an opportunity of reading the prize essays in the "Dream of Fair Women" competition.

We were—yes, we may as well confess it—just a little uneasy about this competition. The subject was by no means an easy one, and was completely different from anything hitherto presented for discussion in "The Farmer's Advocate." As a "feeler," to test what our Literary Society folk could do, however, it promised to be valuable. So—but let us give you a little peep behind the scenes:

As day after day went by, and not a single essay appeared, we began to draw long breaths, and to watch with unusual anxiety for the mail. Then the thing began to be looked upon rather as a joke among the office fraternity, and it was not unusual to see a smiling face thrust in at the "sanctum" door each morning, with the query, "Any Dreams yet?" And the invariable answer, "No," was as invariably replied to by a laugh as the face and its owner disappeared.

Then, almost at the eleventh hour, the essays began to come in—one by one, two by two, and three by three—and the laugh was turned. "I was afraid we had floored them that time," was the remark of one of the editors, as we looked admiringly at

the now fast-growing heap of envelopes.

But it was clear that we had not "floored them." Our farmers had been true to us and to their own "pluck," and the evidence of their wrestle with the knottiest problem "The Farmer's Advocate" has ever challenged them with was there, tangibly enough.

Several of the competitors, in writing us along with their essays, spoke of the "pleasure" they had had in struggling with the poem, and one said: "I don't care whether I get a prize or not; I have had the mental exercise, anyway, and that was what I wrote the essay for." This is the true spirit of all this literary work. The prize counts for comparatively little—although it is interesting to have the memento also—but the work, we trust, means a great deal.

In regard to the essays, we may say that each evinced no small amount of good hard, concentrated study. We do not say that those published are in all points the best. Some of those which did not win a prize at all were, perhaps, in some respects better; but we thought it best to award the prizes to those who wrote the best all-round essays. Mrs. Duncan's, we think, shows an especially keen appreciation of the poem.

So far as the picture is concerned, we doubt if anyone except the painter himself can tell with certainty "which is which." Cleopatra and Jephthah's daughter are, of course, readily picked out. There may be

or, or the daughter of Sir Thomas More. We cannot, however, be sure. The matter is complicated, too, by reason of the fact that Tennyson speaks of eight women in the poem, whereas the artist has portrayed but seven. Also, Tennyson speaks of his dream being over ere he saw Joan of Arc, Sir Thomas More's daughter (interpreted by one of our essayists as Princess Elizabeth), or Queen Eleanor. The artist, evidently, has gone on with the dream, and possibly he alone could with certainty place his characters. However, that is neither here nor there. We have been interested in the picture, and we have studied the poem, and we can assure you that we here in the editorial offices have studied no less diligently and received no less benefit than the rest of you.

In passing, we may say that two of the competitors identified the second personage as Cassandra and Polyxena. We think, however, that the reference to "Aulis," the place at which Iphigenia was offered as a sacrifice to Diana, should mark out this figure as that of Iphigenia.

We have been very much pleased with the result of this competition. We feel now that we can go on, more sure of our footing, and that we shall very soon be able to present to you a plan which is being elaborated for the speedy improvement of our Society.

#### RESULT OF THE COMPETITION.

Prizewinners.—1, Mrs. W. D. Duncan, Flatlands, N. B. 2, Miss E. Comfort, North Pelham, Ont.



Dream of Fair Women.

Honor List.—R. H. Mrs. D. W. M., M. P., M. T., Katharine, Betsy, K. McD.

#### Dream of Fair Women.

##### PRIZE ESSAY.

Tennyson takes us into his confidence, and tells us that Dan Chaucer's "Legend of Good Women," read just before falling asleep, was the inspiration of his own "Dream of Fair Women." "Dan Chaucer, well of English undrained," "Learned Chaucer," whom his brother poets have delighted to honor all down the centuries, receives nowhere a finer tribute than here, where our poet

calls him "The Morning Star of Song"—the first warbler whose sweet breath precluded the times of great Elizabeth.

In his dream, at first the different environments of "those far-renowned brides of ancient song" chase one another through his brain. There are sanctuaries, marble palaces, scaffolds, glimmering vaults and "hushed seraglios"—moving as swiftly as "crisp foam flakes scud along the level sand, torn from the fringe of spray."

Then the scene changes to a dark, deep old wood in early summer. The huge elm trees' leaves have just been released from the silken sheaths; the still, dewy air is fragrant with violets. The red anemone lights up the dark green of the lawns where his famous women walk, and give him glimpses of themselves and their histories.

Helen of Troy, "divinely tall and most divinely fair," first claims his admiration and sympathy. Her eyes betray the sorrow of her soul. She says: "Where'er I came I brought calamity." The poet declares that he himself would, on a fair field, have been glad to die for so fair a face. He turned and appealed to Iphigenia, standing near, but she draws herself up and scornfully declares that Helen was the cause of her blasted youth, and tells him the story of her father offering her in sacrifice that the ships might sail. Helen's remorse for the Trojan war, and all the other miseries caused by her flight, is voiced in the words, "I would the white, cold, heavy-plunging foam, whirled by the wind, had rolled me deep below, Then when I left my home."

Suddenly a voice called him, and Cleopatra flashed on him in all her dusky splendor. She longs to see a man: "I have no men to govern in this wood, That makes my only woe." She does not sigh; she laughs to think how well she cheated at the last the "dull, cold-blooded Caesar" with the "Aspick's bite." She is eager to know of Mark Antony. The memory of her life with him in Egypt is intoxicating still. That he died in her arms, breathing her name, seems to afford her about the same amount of satisfaction as that she herself dies properly costumed—"lying robed and crowned." Cleopatra evidently did not underestimate the effect of clothes.

What a contrast is that which Jephthah's pure daughter presents, coming through the lawn and singing praises as she moves, of blessed Israel, for her God, her native land, her father. She tells the poet, "A thousand times I would be born and die," and that her father's last kiss "sweetens her spirit still." From the holy ecstasy of the Jewish maid, he turns to Rosamond, the fair favorite of Henry II. The "dragon eyes" of Eleanor, the neglected wife, she complains, do haunt her day and night. She wishes she had been born a maiden coarse and poor, and weeps bitter tears of despair. Cleopatra taunts her with dying too tamely. She tells her, "You should have clung to Fulvia's waist and thrust a dagger through her side." Then, just before the dawning, he saw in his dream Elizabeth, young daughter of Charles I. of England, Joan of Arc, and lastly, Eleanor of Castile, who, as he beautifully tells



us, "knew that Love can vanquish death," and did so by drawing forth the poison "with her balmy breath, sweet as new buds in spring."

Morning came, and his beatific vision vanished away, much, the poet tells us, to his regret. He would strike into that track of dreams again, but "no two dreams are like." The reader is sorry, too, when he finishes reading this beautiful dream. It is like the ceasing of exquisite music. We wish to hear more. Perhaps in no other of his poems does Tennyson show us more of his matchless power of description. He sees and paints as only the great artist can. Take this:

"The torrent brooks of hallow'd Israel From craggy hollows pouring late and soon, Sound all night long in falling through the dell, Far-heard beneath the moon."

Who does not thrill as he reads the words, and say how true that is. This man has lived close to nature's heart; they know one another.

You realize something of the fascination of Cleopatra's eyes when "She raised her piercing orbs, and filled with light the interval of sound," and something, too, of her splendid audacity when she calls for

"The man, my lover, with whom I rode sublime On Fortune's neck: we sat as God by God: The Nilus would have risen before his time And flooded at our nod."

How vividly do we live over again the scene of Iphigenia's death:

"The high masts flickered as they lay afloat: The crowds, the temples, wavered, and the shore: The bright death quivered at the victim's throat, Touched, and I knew no more."

"Beauty and Anguish walking hand in hand the downward slope to

death," the poet saw in every land. Is this the keynote of the poem? Why not Beauty and Happiness the upward path to life? We cannot conceive of Joan of Arc, Jephthah's daughter, Eleanor of Castile, or even Princess Elizabeth of England, suffering remorse in the future life. The poet does not point out the moral; he adorns the tale, and as we look down the vistas of that wondrous wood and think of the life stories of those fair women, the thought is borne in on us that we fix our own characters and our own destinies.

"Our acts our angels are, or good or ill, Our fatal shadows that walk by us still."

MRS. W. D. DUNCAN, Long Island Lodge, Flatlands, N. B.

PRIZE ESSAY.

Guarding the entrance to the forest, whither the captain of the poet's dreams had led him, is Helen of Greece and Troy. She is the fifth figure in the painting, dressed in Grecian costume. Her beauty of face and form betoken her as Helen, "the fairest lady of immortal line," the one who has exercised such a wonderful influence over Grecian history, literature and art.

Paris, heir to the Trojan throne, visited the court of Helen, who had wedded Menelaus, King of Sparta. Becoming entranced with her loveliness, he carried her a willing captive to Troy, thus occasioning the ten years' siege of Troy by the combined Grecian forces. At length, victory rested on Grecian arms, and Helen, reconciled to Menelaus, occupied her former position. But the hearts of the people burned against her, for the ruin of a western world was due to her beauty and faithlessness, and the punishment by banishment, meted out to her, seems but just.

Standing beside the crouching form of Helen is Iphigenia, who, "with scornful looks averse," accuses Helen of being the cause of her death. The painter has portrayed faithfully the

haughty, disdainful features of the injured Princess, who momentarily forgets her wrongs at the appearance of the second figure. . . . All had been made ready to embark for Troy; King Agamemnon had his fleet riding at anchor at Aulis, but not a breath of wind stirred the sails. Impatient of delay, the oracles were consulted and the cause learned. To pacify the wrath of an angered goddess against Agamemnon, a sacrifice of his daughter, Iphigenia, was demanded. The distressed parents pleaded, but the goddess was pitiless, and the Princess was led forth to the sacrifice. The goddess was appeased. The winds rose, and the ships sailed away.

How like the poem is the portrait of the third figure—"A Queen with bold, black eyes, brow bound with burning gold," the proud Egyptian, Cleopatra. Reigning in Egypt, she was more firmly established on her throne by the aid of Julius Cæsar. By her beauty and fascination she captivated Mark Antony, who had summoned her to Tarsus to answer charges brought against her. Instead of being her accuser, he became her admirer, and, shortly after, as her general, fought the great battle of Actium. Learning of Cleopatra's double-dealing, he vowed revenge. Again relenting, on hearing a false report of her death, he fell on his sword, and was carried into her presence mortally wounded. Cleopatra, disdainful to grace the triumph of the Roman conquerors, allowed an asp to inflict a fatal wound.

But who is this who comes singing the praises of Israel? To her the attention of all is directed. Who can it be who comes rejoicing. Can it be possible that she, too, is numbered amongst those "who walked the downward slope to death"? Yes, for this is Jephthah's daughter, who gave herself a willing sacrifice to keep her father faithful to his vow. Even as she comes now into their midst in this dreamy wood, so went she out with timbrel and song to welcome her father home from battle, not knowing of that

wild oath which would change her joy to sorrow. Then, pleading only that a delay might be granted her, she went mourning, up and down the mountains, until He spake, when, realizing how beautiful it was to die, "for God and for her sire," she returned to her father's house to meet death. This is the crowning figure in the painting, the one who arrests our attention, whose face, so different from the rest, glows with devotion, triumph and love. In her hand she carries the timbrel, and in fancy we, too, can hear her singing "Glory to God," as she disappears from view.

Kneeling by Jephthah's daughter, scarcely daring to life her eyes to the sweet singer, is Rosamond de Clifford, a name almost forgotten in history. Had not Tennyson kept her before the public mind in his drama, "Beckett," we might have searched long ere we found anything to remember concerning her. Living a secluded life, loving the woods and the flowers, she might have remained happy in her childhood's home, had not her fatal beauty attracted the admiration of Henry II. of England. The finding of Rosamond's bower in the enchanted wood by Eleanor, who came resolved to have her rival's life, the timely appearance of Beckett, and the subsequent entering of Rosamond in Godstone nunnery, is admirably told by the poet.

But no one lingers long in the land of dreams. We, too, regret that "no two dreams are alike," else had the three shadowy figures taken shape, and others, in whom "beauty and anguish joined hand in hand," would have peopled Tennyson's dreamland woods.

E. COMFORT, Welland Co., Ont.

Our Society Pin.

Dear Sir,—I have received your Literary Society Pin. It is all right, and am well pleased with it. Hope I shall be able to secure more new names. Wishing you success. ROBERT WYLLIE, Colchester, N. S.

News of the Day.

Canadian.

From 4,000 to 5,000 people per week are now leaving British ports to seek new homes in Canada.

A new railway, it is said, is to be built from Cobalt to connect with the C. P. R. at Sudbury. Surveying parties will set out over the ground at an early date.

The Government has decided to accept the offer of the Imperial authorities to transfer to Canada the dockyard at Halifax, and suitable provision will be made for taking care of the property.

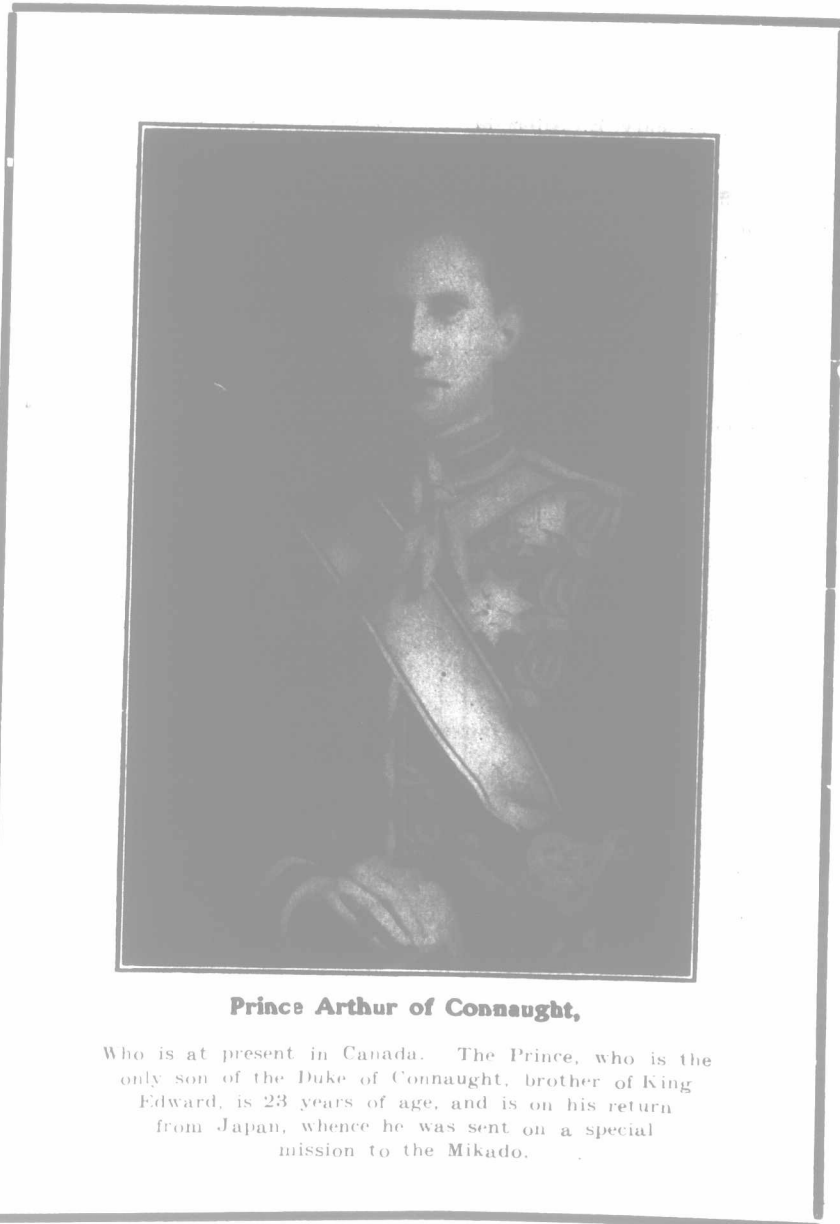
Cobalt is booming. Land values have gone rapidly up, and work is progressing busily on every hand, in preparation for the crowds of people expected to arrive at this lively mining town during the summer.

Vice-President L. W. Hill has confirmed the report that the Great Northern will build a third transcontinental road through Canada from the Atlantic to the Pacific. He added that the work would commence at once, and that all possible speed would be observed in pushing it to completion.

British and Foreign.

The Rev. Dr. Geikie, of Scotland, the noted divine and author, is dead.

After being entombed for twenty-five days, fifteen men have been brought forth alive from the mines at Lens, France.



Prince Arthur of Connaught,

who is at present in Canada. The Prince, who is the only son of the Duke of Connaught, brother of King Edward, is 23 years of age, and is on his return from Japan, whence he was sent on a special mission to the Mikado.

John Alexander Dowie, Elijah II., the founder of Zion City, Chicago, has come to an ignominious downfall, having been deposed as member of the church which he founded.

A despatch from London from the Associated Press, says: "Great Britain is drawing still another lesson from the colonies. A resolution has been placed on the order paper of the House of Commons, noting with satisfaction the successful working of the local option law in the colonies, and asking the House to approve the principle."

The work of the Conference at Algeiras, which opened on the 16th of January last, came to an end on March 31st. By the agreement, which was embodied in a formal protocol, France will police four of the Moroccan ports, including Mogador; Spain two; and France and Spain, jointly, will police Tangier and Casa Blanca, subject to an Inspector of Police. The primary object of Germany, in seeking to obtain a footing on the Mediterranean and to loosen the tie between France and England, has, therefore, received a decided check, and her next move to figure on the chess-board of Europe will be awaited with interest.

A little Topeka girl came home from church the other day, and was asked what the minister's text was. "I know it all right," she asserted. "Well, repeat it," her questioner demanded. "Don't be afraid, and I will get you a bed quilt," was the astonishing answer. Investigation proved that the central thought of the sermon had been, "Fear not, and I will send you a comforter."



### With the Flowers.

#### Re Single Dahlias.

"A New Subscriber," York Co., Ont., kindly writes us as follows: "I notice 'Amateur's' enquiry about Dahlia and Canna seeds. I have not had any experience with Canna seeds, but I will tell you of my single Dahlias, which were grown from seed sown April 24th, 1905. The seed was sown in a cold frame, and in a few days the plants began to show. When well-developed plants with four or five leaves, I transplanted into good rich earth, hood them three or four times each week. The rabbits ate off ten, but the remaining twenty gave me twelve different shades by 1st September. The first bloom appeared August 24th. I had a beautiful collection of colors of the most delicate markings, from the most intense velvety crimson and carmine, and several shades of yellow. Try Dahlias from seed."

#### The Massing of Flowers.

"I wandered lonely as a cloud  
That floats on high o'er vales and hills,  
When all at once I saw a crowd,  
A host of golden daffodils;  
Beside the lake, beneath the trees,  
Fluttering and dancing in the breeze.  
Continuous as the stars that shine  
And twinkle on the milky way,  
They stretch'd in never-ending line  
Along the margin of a bay:  
Ten thousand saw I at a glance,  
Tossing their heads in sprightly dance.  
The waves beside them danced; but they  
Outdid the sparkling waves in glee:  
A poet could not but be gay,  
In such a jocund company:  
I gazed—and gazed—but little thought  
What wealth the show to me had brought:  
For oft, when on my couch I lie  
In vacant or in pensive mood,  
They flash upon that inward eye  
Which is the bliss of solitude;  
And then my heart with pleasure fills,  
And dances with the daffodils."  
—Wordsworth

True, it was the poet who wrote the above who complained also of the man who could not understand the meaning of the solitary flower filling its own little place in the world by the river-brink:

"A primrose by the river's brim  
A yellow primrose was to him,  
And it was nothing more."

And yet we can but think that though Wordsworth could muse over the solitary blossom, and feel its beauty and its mission—and more than this, for Wordsworth had some strange ideas in regard to nature—

its presence could scarcely fill him with the buoyancy expressed in this poem, induced by the "ten thousand" which he saw at a glance, "tossing their heads in sprightly dance."

A mass of flowers, especially of one kind, blooming together, and at the height of their beauty, always suggest a fullness of life, a lacking in nothing, a sense of freedom, and light, and absorbing of the sun. Hence it is, in part, at least, that the ordinary garden, with its mixture of flowers—a few Asters here, a few Zinnias there, etc.—seldom appeals to us with the same force as

a blaze of Golden-rod on a hillside, a clump of wild Asters at the edge of a swamp, or a patch of Trillium or Bloodroot deep in the wood. The difference in environment, of course, has something to do with the deeper enjoyment of the latter, and yet a few experiments with massing flowers in the garden will convince one that there is something of the same satisfaction to be gained by so doing. Indeed, we seldom make a mistake in following nature closely.

A glance at the accompanying illustration my serve to emphasize the point. The flowers in the foreground are moss pinks, thousands of them, pink, purple and white, on a bit of rising ground at the edge of a lawn. The higher, drooping ones in the background are Wistaria blossoms, also in thousands, depending from vines that have overrun a mass of shrubbery which it was to no interest to preserve. It will be seen that this wild, careless, nature-following arrangement is, for a situation such as this, much more effective than a more formal, or a less-skilfully-planned, more heterogeneous one. Imagine the same plot, for instance, with a dozen different kinds and colors of flowers over it, and you will understand the implication. In just such a situation, and quite as effectively, might appear Trumpet Vine, Grape, Clematis, Alleghany Vine, etc., as a background, with any low-growing flower that covers well below—Forget-me-not, Crocus, Rock Cress, etc., each appearing in its season.

Even in more formal gardening, however, massing will be found effective. Monthretia, summer Hyacinth—a score of such plants present but a sorry sight when growing singly, but plant fifty or one hundred of them side by side, and see the difference. Try the same plan of planting in "patches," with other things. Instead of jumbling your Columbines, Sweet Williams, Foxgloves, Delphiniums, etc., all together, a single specimen of each, group them. Sweet Williams, measured by yards, instead of by the square foot, are a revelation; and so it will prove to be with most other things.



The Massing of Flowers.

### The Quiet Hour.

#### Sunrise.

It was dark to Mary of Magdala  
As she stole from her lonely room,  
And sped away ere the break of day  
To the place of the rich man's tomb.  
It was dark as night in her mournful soul;  
The hope of her life had fled;  
For sin had won, and the deed was done,  
And the Son of God was dead.  
This was the end, then, after all!  
The power of the Christ to save,  
And sins forgiven, and hopes of heaven,  
All buried in Jesus' grave!  
With the old sad shame in her love's eyes,  
In her heart the old dull pain:  
"Can help arise from a man who dies?  
I shall never see Him again!"  
But a glow crept up from the purple hills;  
Dawn came to the morning air,  
And a sudden grace to the tear-stained face  
Of the woman waiting there,  
For lo! in the sunlit garden path  
Stood the Master! Kingly still,  
He was just the same, for He spoke her name,  
And quietly told His will.  
"Rabboni!" Only one word she said,  
But her heart was in the cry.  
There He stood, her Christ! and the sight sufficed,  
Although she had seen Him die.  
And for Mary of Magdala, through the power  
Of that Resurrection Day,  
All the dark and the night, all sin and blight,  
Had forever passed away!  
Is the Christ alive? Let us feel it then,—  
The rapture, the joy, the thrill!  
No sorrowful years or despairing tears,

He lives! and is mighty still,  
We, too, whom the Master calls by name,  
Have nothing to do with night;  
Let us lift our eyes to the Eastern skies,  
And live in the endless Light!  
—Mary E. Albright.

#### Meeting the Master Secretly.

Jesus saith unto her, "Mary." She turned herself, and saith unto Him, "Rabboni," which is to say, "Master."  
—St. John xx.: 16.  
He was seen of Cephas . . . seen of James . . . and last of all, He was seen of me also.—1 Cor. xv.: 5, 8.  
"I like to think the Spring, before she started  
Upon her lovely quest,  
Knelt low at Christ's own footstool  
and departed  
With her green mission blest.  
"I like to think the daffodilian splendor  
That decks her tender grace,  
Was gathered when she knelt in glad surrender  
Before His shining face.  
"I like to think her gown, in fairest order  
With bud and bloom made bright,  
Brushed something of its fragrance  
from the border  
Of His pure robe of white.  
"And, be my song no better than a seeming  
In idle thought begun,  
Still hath my soul been carried by its dreaming,  
Lark-like, toward the sun!"  
St. Paul, in his list of various appearances of the Risen Lord, entirely omits the interviews with the women; in spite of the fact that St. Mark tells us He appeared "first" to Mary Magdala and St. Matthew describes how the other women, who had hurried before

dawn to the sepulchre, and were running "quickly" to carry their glad tidings, were met by the Master—as they went—and worshipped Him in lowliest adoration. Women were given the high privilege of the first glimpse of the Living One after His Resurrection; and, though St. Paul may have passed over these meetings with women as hardly worth recording, they were not unimportant in the Master's eyes, and they are of great importance to us. Though the Christian religion is "catholic," i. e., "universal"—wide enough to gather into its comprehensive embrace all the nations of the earth—yet it is also marvellously individual. God has a special message for each, Jesus is the Word of God to you and to me. He says to each man, woman and child: "I have called thee by thy name; thou art Mine."

"For thee He died—for thee He lives again;  
O'er thee He watches in His boundless reign,  
Thou art as much His care, as if beside,  
Nor man nor angel liv'd in Heaven or earth."

Wonderful indeed was the individual tenderness and considerate kindness shown by the Risen Lord to His servants that first glorious Easter tide. How thankful Mary must have been that the other women were not with her when that one word of personal affection, so quietly spoken, turned her sorrow into rapturous joy. How natural and beautiful is the answering "Master" that springs instinctively to her lips. When the heart is full the words are few; but there was a world of individual tenderness in the "Mary," and no grand Te Deum could better express joyful adoring praise than that exclamation in her native tongue: "Rabboni!" Holy indeed is the record of the Gospel record. The secret of Mary

with the broken-hearted Peter is too sacred to be described at all—surely we know from personal experience how unutterable was that mingling of sorrowful repentance and pardoning love, even as we can understand how a loving look can go straight from the heart of the Master to the heart of a disloyal disciple. Words are an impertinent interruption sometimes.

Then there was a private interview with St. James about which we know absolutely nothing—it is still a holy secret between him and his God. Many times, when two or three were gathered together in His Name, they knew certainly that their Risen Master was in the midst of them—we can understand those meetings, too, can we not? "Last of all He was seen of me also," says St. Paul, who only saw his Lord after the Ascension. "Can we not, each one of us, echo that saying? I speak to those who wear the Master's Name always next the heart; have you not, more than once or twice, met Him secretly, and found that Jesus is the same to-day as He was yesterday? His presence can still fill each heart with joyful, enthusiastic desire for service. Those who follow the example set by Mary Magdala, and, very early in the morning, kneel in glad surrender before His shining face," find that the day is filled with Easter brightness. As they speed quickly on their Master's errands, the air is perfumed with fragrance, because they have touched the Rose of Sharon, and their white robes have brushed something of its fragrance from the border of His pure robe of white."

"As some rare perfume in a vase of clay  
Perfades it with a fragrance not its own,  
So when Christ dwelleth in a mortal soul,  
All heaven's own sweetness seems around it thrown."  
Wode says that the words, "my



Master," should be worn next the heart, next the will; sinking into the very springs of both, deeper each day. He continues: "Let me get up every morning with this for the instantaneous thought, that my Master wakes me. I wake, I rise, His property. Before I go out to plow, or feed, or whatever it may be, upon His domain, let me, with reverent and deep joy, go into His private chamber, as it were, and avow Him as my Master, my Possessor, absolute, not constitutional; supremely entitled to order me about all day, and, if He pleases, not to thank me at the close. . . . let me continually, in the habit of my thought, be coming again into that Presence-chamber, to renew the act of that dedication and submission." In the poem, "Yesterday, To-day and Forever," is beautifully pictured the first rapturous meeting between a royal servant and his Lord, in Paradise. It is a secret interview; for, like Joseph, our Brother allows no outsider to be present when He makes Himself known to His brethren.

"Where do you think heaven is?" was a question asked me the other day. I don't "think," nor care, where it is. There we shall see the King in His beauty, and His servants shall serve Him joyously and perfectly—is not that enough? What does it matter where heaven is, when His presence can make heaven anywhere?

A small boy in a London mission school was once asked, "Where does Jesus live?" He answered, "Some of His friends have come to live in our alley, and I think He lives with them." Does He live with you? Do you make good use of your great privilege and have many secret meetings with Him during the day? Most people want to be good—surely everybody does—but trying to do one's duty is a dry and wearisome thing without the glad consciousness of the Master's presence. No wonder life seems dull and hardly worth living to those who walk along with eyes cast down. "Lift up thine eyes and seek His face," many times every day; secure a few minutes alone with Him—alone in soul, if it is not possible to be alone in body—and you will surely find that in His presence is life and sunshine. The Risen Christ still shows Himself alive after His passion, "by many infallible proofs," and perhaps one of the strongest proofs of all is the wonderful way in which He meets the infinite hunger of each and every soul, but this is a proof that cannot be handed around for inspection. He can be all-in-all to each as absolutely as though there were only one soul and its God in all the universe. He is always at leisure, always giving the closest possible attention and personal, individual affection to each.

The world is so full of sin and its miserable fruits, that it would seem hardly possible to believe in a good God at all, unless we believed in the Incarnation. Our Brother could not have stayed comfortably in heaven, He was constrained by the mighty power of love to come down and lift the awful, crushing load from His brethren, laying it on His own strong and tender Heart—what wonder that Heart broke? When God made man in His own image, it became necessary to take upon Himself the image of man, to become bone of our bone, and flesh of our flesh. When a soul finds itself in deep waters, it reaches out instinctively to grasp a strong, warm human hand. And how warm and close is the pressure of that Hand which forever bears in its human flesh the print of the nails—the scars of loving self-sacrifice. Surely Browning speaks for us all when he says:

"Tis the weakness in strength that I cry for! my flesh that I seek  
In the Godhead! I seek, and I find it.  
O Saul, it shall be  
A Face like my face that receives thee:  
A Man like to me,  
Thou shalt love and be loved by, forever!  
A Hand like this hand  
Shall throw open the gates of new life  
to thee! See the Christ stand!"

HOPE.

"So is it still: to holy tears,  
In lonely hours, Christ risen appears;  
In social hours who Christ would see  
Must turn all tasks to Charity."

—From Keble's Easter Hymn.

Cockley, Maryculter,  
Scotland, March 7th, 1906.

Dear Hope:—"The Farmer's Advocate" has been a welcome friend in this household for nearly a year now, and getting a read of it along with others, I intuitively turn to your writing in the "Quiet Hour," which I greatly appreciate. Not referring by way of preference to any of the subjects that have come under review, I will merely say that I am reminded by the appearance of the snow-drop above the ground of the beautiful name you take—how from the past it points us to the future—to use past failures as stepping-stones to success, and, with Hope's cheerful and beaming face ever near to beckon us onward, disappointments and discouragements need not cause us dismay; in trustful confidence and holy carelessness, we can look upward, assured that all things will work together for our good, and that though we may now sow in tears, there is a reaping time of joy in store for us.

I remain,  
Yours very truly,  
J. MIDDLETON.

P. S.—I enclose a few lines, which, if not suitable for insertion in your paper, may suggest a few thoughts to you.

**Death Conquered by Life.**

Long hath the gloom of winter been,  
With sadness most severely keen—  
All around is desolation:  
And each cold association:  
For about us reigns the darkness,  
Yet to be the dawn of gladness,  
When death shall disappear again  
And give us joy for all our pain.

Now with clouds and shadows reigning,  
Meadow, dale and all things blighting;  
Outbursts of rain and falls of snow,  
And floral life no longer glow;  
But lo! with sunshine and the rain,  
We see the glow of life again—  
The voice of spring sounds in our ears,  
And Nature buds and blossoms bears.

The vocal air breathes notes of hope,  
The pure and good with evil cope,  
And winter's breath is thawed away  
When quick'ning life doth have its sway.  
So, should our hearts be crushed with sorrow,  
They may be cheered and glad to-morrow.

And, from the grave of buried hope,  
Get more than all for which we mope.

Look not into the empty tomb—  
Into your heart where all is gloom—  
For Christ, who once lay in the grave,  
Did rise victorious, us to save.  
O'er sin and death He got dominion,  
When He rose on eagle's pinion,  
Took from the foe his tools away  
To hold in check his evil sway.

So we, through Him, all foes defy,  
And mount into our native sky—  
With life of faith begun on earth  
We rise triumphant over death;  
And, seated round the throne of glory,  
Shall review life's wondrous story;  
Until anew our burst of song  
Spreads through the vast concentric  
throne.

—J. Middleton.

It is a great pleasure to know that our Canadian paper is appreciated in Scotland, and we gladly publish our correspondent's Easter song of victory. Death pushes itself into prominence everywhere, but those whose eyes are opened can see clearly that it is only "an incident in life"—that everywhere it is only a transitory darkness while life is, and must always be, victorious over its great enemy. The Easter gladness is in the air—may God grant that it may take possession of our spirits. HOPE.

"E'en so the course of prayer who knows?  
It springs in silence where it will,  
Springs out of sight, and flows  
At first a lonely rill:

"But streams shall meet it, by-and-bye,  
From thousand sympathetic hearts,  
Together swelling high  
Their chant of many parts."  
—Hymn for Easter Monday; Keble.

Don't trust to borrowed time -  
Take your own time from an  
**ELGIN WATCH**

Every Elgin Watch is fully guaranteed. All jewelers have Elgin Watches. "Timemakers and Timekeepers," an illustrated history of the watch, sent free upon request to  
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how "Five Roses" Flour is made—how the wheat is first thoroughly cleansed on the outside, then ground, sifted over and over again through the finest silk cloth, to remove the smallest impurities, and packed in bags and barrels, all untouched by human hands, you would understand why "Five Roses" is superior to all ordinary brands as regards purity.

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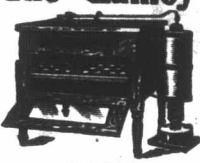
GRAHAM DERMATOLOGICAL INSTITUTE.  
502 Church St., Toronto. Estab. 1892.

**WEDDING** stationery. Young ladies who are interested in what is proper in the matter of stationery for weddings, should send for our booklet. Free for the asking. Latest type faces. Best imported stock. **Lynn Side Press, Dept. 5, Simcoe, Ontario.**

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QUINCY INCUBATOR CO., Box 68, QUINCY, ILL.

Mother (who is teaching her child the alphabet): "Now, dearie, what comes after G?" The child: "Whizz!"

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Will Color Anything  
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The most wonderful helpers in the home to economical dressing are the Diamond Dyes. They are so easy to use that even a child can dye a rich and perfect color with them.

Diamond Dyes make faded and dingy dresses, blouses, capes, jackets, stockings, scarves, laces and draperies look like new.

Beware of dyes that claim to color cotton and wool with the same dye. It is impossible to get satisfactory results from dyes of that character. In Diamond Dyes there are special dyes for coloring all cotton and mixed goods, and special dyes are made for all wool goods.

Each of the Diamond Dye colors is guaranteed to give full satisfaction, when used according to directions.

## Glengarry School Days.

CHAPTER XIII.—Continued.

"And now I have to recount another experience of mine, quite unique and altogether inexplicable. It appears that in this remarkable abode—I would call it 'The Saint's Rest'—were it not for the presence of others than saints, and for the additional fact that there is little rest for the saint who makes her dwelling here—in this abode there prevails the quaint custom of watching the death of the old year and the birth of the new. It is made the occasion of religious and heart-searching rite. As the solemn hour of midnight draws on, a silence falls upon the family, all of whom, with the exception of the newest infant, are present. It is the family festival of the year.

"And what will they be doing at your home, Mr. Craven?" enquires the minister. The contrast that rose before my mind was vivid enough, for, having received my invitation to a big dance, I knew my sweet sisters would be having a jolly wild time about that moment. My answer, given, I feel, in a somewhat flippant tone, appears to shock my shiny captain of the angelic face, who casts a horror-stricken glance at his mother, and waits for the word of reproof that he thinks is due from the padre's lips.

"But before it falls the mother interposes with, 'They will miss you greatly this evening.' It was rather neatly done, and I think I appreciated it.

"The rite proceeds. The initial ceremony is the repeating of a verse of Scripture all round, and to save my life nothing comes to my mind but the words, 'Remember Lot's wife.' As I cannot see the appropriateness of the quotation, I pass.

"Five minutes before the stroke of twelve, they sing the Scottish paraphrase, beginning, 'O God of Bethel.' I do not suppose you ever heard it, but it is a beautiful hymn, and singularly appropriate to the hour. In this I lend assistance with my violin, the tune being the very familiar one of 'Auld Lang Syne,' associated in my mind, however, with occasions somewhat widely diverse from this. I assure you I am thankful that my part is instrumental, for the whole business is getting onto my emotions in a disturbing manner, and especially when I allow my eyes to linger for a moment or two on the face of the lady, the center of the circle, who is deliberately throwing away her fine culture and her altogether beautiful soul upon the Anakim here, and with a beautiful unconsciousness of anything like sacrifice, is now thanking God for the privilege of doing so. I have some moments of rare emotional luxury, those moments that are next to tears.

"Then the padre offers one of those heart-racking prayers of his that, whether they reach anything outside or not, somehow get down into one's vitals, and stir up remorse, and self-condemnations, and longings unutterable. Then they all kiss the mother and wish her a Happy New Year.

"My boy, my dear boy, I have never known deeper moments than those. And when I went to shake hands with her, she seemed so like a queen receiving homage, that without seeming to feel I was making a fool of myself, I did the Queen Victoria Act, and saluted her hand. It is wonderful how great moments discover the lady to you. She must have known how I was feeling, for, with a very beautiful grace, she said, 'Let me be your mother for tonight,' and by Jove, she kissed me. I have been kissed before, and have kissed some women in my time, but that is the only kiss that I can remember, and s'help me, Bob, I'll never kiss another till I kiss my wife.

"And then and there, Maitland, I swore that by all I knew of God, and by everything sacred in life, that I'd quit the past and be worthy of her trust; for the mischief of it is,

she will persist in trusting you, puts you on your honor noblesse oblige business, and all that. I think I told you that I might end in being a saint. That dream I have surrendered, but, by the grace of Heaven, I'm going to try to be a man. And I'm going to play shiny with those boys, and if I can help them to win that match, and the big game of life, I will do it.

"As witness my hand and seal, this first day of January, 18—

"J. C."

CHAPTER XIV.

The Final Round.

After the New Year the school filled up with big boys, some of whom had returned with the idea of joining the preparatory class for college, which the minister had persuaded John Craven to organize.

Shinny, however, became the absorbing interest for all the boys, both big and little. This interest was intensified by the rumors that came up from the Front, for it was noised through the Twentieth section that Dan Munro, whose father was a cousin of Archie Munro, the former teacher, had come from Marrintown and taken charge of the Front school, and that, being used to the ice game, and being full of tricks and swift as a bird, he was an exceedingly dangerous man. More than that, he was training his team with his own tricks, and had got back to school some of the old players, among whom were no less renowned personages than Hec Ross and Jimmie "Ben." Jimmie Ben, to wit, James, son of Benjamin McEwen, was more famed for his prowess for a fighter than for his knowledge of the game of shinny, but every one who saw him play said he was a "terror." Further, it was rumored that there was a chance of them getting for goal Farquhar McRae, "Little Farquhar," or Farquhar Bhag (pronounced "vaick"), as he was euphoniously called, who presumably had once been little, but could no longer claim to be so, seeing that he was six feet, and weighed two hundred pounds.

It behooved the Twentieth team, therefore, to bestir themselves with all diligence, and in this matter Hughie gave no rest either to himself or to any one else likely to be of any use in perfecting his team. For Hughie had been unanimously chosen captain, in spite of his protests that the master or one of the big boys should hold that place. But none of the big boys knew the new game as perfectly as Hughie, and the master had absolutely refused, saying, "You beat them once, Hughie, and you can do it again." And as the days and weeks went on, Hughie fully justified the team's choice of him as captain. He developed a genius for organization, a sureness of judgment, and a tact in management, as well as skill and speed in play, that won the confidence of every member of his team. He set himself resolutely to banish any remaining relics of the ancient style of play. In the old game every one rushed to hit the ball, without regard to direction or distance, and the consequence was that, from end to end of the field a mob of yelling, stick-waving players more or less aimlessly followed in the wake of the ball. But Hughie and the master changed all that, forced the men to plan in their positions, training them never to drive wildly forward, but to pass to a man, and to keep their clubs down and their mouths shut.

The striking characteristic of Hughie's own playing was a certain fierceness, amounting almost to fury, so that when he was in the attack he played for every ounce there was in him. His chief weakness lay in his tempestuous temper, which he found difficult to command, but as he worked his men from day to day, and week to week, the responsibility of his position and the magnitude of the issues at stake helped him to a self-control quite remarkable in him.

As the fateful day drew near, the whole section was stirred with an intense interest and excitement, in which even the grave and solemn

elders shared, and, to a greater degree, the minister and his wife.

At length the day, as all days great and small, actually arrived. A big crowd awaited the appearance of "the folks from the Front." They were expected about two, but it was not till half-past that there was heard in the distance the sound of the bagpipes.

"Here they are! That's Alan the cooper's pipes," was the cry, and before long, sure enough, there appeared Alphonse le Roque driving his French-Canadian team, the joy and pride of his heart, for Alphonse was a born horse-trainer, and had taught his French-Canadians many extraordinary tricks. On the dead gallop he approached the crowd, till within a few yards of them, when, at a sudden command, they threw themselves upon their haunches, and came almost to a standstill. With a crack of his long whip Alphonse gave the command, "Deesplay youself!" At once his stout little team began to toss their beautiful heads, and broke into a series of prancing curves that would not have shamed a pair of greyhounds. Then, as they drew up to the stopping-point, he gathered up his lines, and with another crack of his whip, cried, "Salute ze ladies!" when, with true equine courtesy, they rose upon their hind legs and gracefully paved the empty air. Finally, after depositing his load amid the admiring exclamations of the crowd, he touch their tails with the point of his whip, gave a sudden "Whish!" and like hounds from the leash his horses sprang off at full gallop.

One after another the teams from the Front swung round and emptied their loads.

"Man! what a crowd!" said Hughie to Don. "There must be a hundred, at least."

"Yes, and there's Hec Ross and Jimmie Ben," said Don, "and sure enough, Farquhar Bhag. We'll be catching it to-day, whatever," continued Don, cheerfully.

"Pshaw! we licked as big men before. It isn't size," said Hughie, with far more confidence than he felt.

It was half an hour before the players were ready to begin. The rules of the game were very few and simple. The play was to be one hour each way, with a quarter of an hour rest between. There was to be no tripping, no hitting on the shins when the ball was out of the scrimmage, and all disputes were to be settled by the umpire, who on this occasion was the master of the Sixteenth school.

"He's no good," grumbled Hughie to his mother, who was even more excited than her boy himself. "He can't play himself, and he's too easy scared."

"Never mind," said his mother, brightly: "perhaps he won't have much to do."

"Much to do! Well, there's Jimmie Ben, and he's an awful fighter, but I'm not going to let him frighten me," said Hughie, savagely: "and there's Dan Munro, too, they say he's a terror, and Hec Ross. Of course we've got just as good men, but they won't fight. Why, Johnnie 'Big Duncan' and Don, there, are as good as any of them, but they won't fight."

The mother smiled a little.

"What a pity! But why should they fight? Fighting is not shinny."

"No, that's what the master says. And he's right enough, too, but it's awful hard when a fellow doesn't play fair, when he trips you up or clubs you on the shins when you're not near the ball. You feel like hitting him back."

"Yes, but that's the very time to show self-control."

"I know. And that's what the master says."

"Of course it is," went on his mother. "That's what the game is for, to teach the boys to command their tempers. You remember 'he that ruleth his spirit is better than he that taketh a city.'"

"O, it's all right," said Hughie, "and easy enough to talk about."

(To be continued.)



THE CHILDREN'S CORNER



He is Not Here! He is Risen!

The women who had loved the crucified Jesus had spent a sad Sabbath day. I suppose they thought of how happy they had been with Him only a few days ago, and now they could not even anoint His dead body with their sweet spices, because it was the Day of Rest. But at the rising of the Sun, on the first day of the week, these three, two called Mary, and one, Salome, came hurrying with their sweet spices to the sepulchre (which, you see, was like a cave in the rock). How glad they were to find the great stone rolled away from the doorway! But there was no need of their spices now, for instead of their Master's dead body, they saw a shining angel, whose good news makes us glad to-day.

Grandma's Easter Angel.

"Grandma is very cross this morning," said Jack, smoothing his clean surplice lovingly. Mother had stood late ironing it the night before, for this was the great day when Jack was to sing the Easter solo in the church, and no wonder the sun was shining so brightly through the kitchen window.

"Poor Grandma," said Mother, gently. "I wish she could go to church, too."

Jack's face fell. It was no wonder a person should be cross who had to sit in her room all day, when the Easter music was so beautiful. Suddenly he began to put his surplus over his head.

"I will sing the solo to Grandma," he cried. "There is lots of time."

Perhaps the poor old lady in the arm-chair upstairs had forgotten it was Easter. Her mouth was all drawn down at the corners, and she looked, as Jack said, "cross." All at once she heard Jack's joyful voice at the end of the passage.

"Jesus Christ is risen to-day, Alleluia!"

Nearer and nearer it came, the sweet old tune, till the door opened, and in came Jack, in his white surplice, with his eyes shining, red spots in his cheeks, and the sun on his golden-brown curls. He held his hymnbook open, and sang the hymn to the end. Then he looked anxiously at the old lady.

"Would it make your head ache to hear the anthem, Grandma?" and to his relief, she shook her head, and smiled at him.

So they had the anthem which for so many weeks had been ringing in Jack's head. The high sweet voice never faltered, and when he broke forth with all his heart in the solo, "The Lord is risen, the Lord is risen, indeed," Jack's mother stood at the foot of the stairs, and held her breath. Grandma had the solo twice, and when Jack ran off to church, her face was as bright as his own, and she was turning over the leaves of her Bible to find the glad story of the Resurrection.

Bird-hunting Without a Gun.

Now, when the leaves are wrapped up in their buds out of sight, is the time for a delightful study. It can be carried on whenever one is out of doors in the country. All you need is a pencil and a small notebook, and a good pair of eyes. On the way home from school, you see a bird hopping about in a bush. You creep quietly up (field-glasses are a help, but not necessary), and examine him. Put down in the notebook his size, and the color of his head, breast, back and wings. When you get home ask your brother his name (most boys know all the birds in their part of the country, and their songs), or look him up in a book of birds. It is wonderful how soon your notebook will be filled with different kinds of birds. Sometimes you will see one out of your bedroom window, or hear one singing when you are at work in the kitchen, and run out to see if he is a new specimen. Try it this spring, and see how exciting it is.

Cousin DOROTHY.

52 Victor Ave., Toronto.

Cousin Dorothy's Letter-box.

I enjoy reading the "Children's Corner" very much. My papa has taken "The Farmer's Advocate" for twelve years; he would not be without it. And now that I am able to read, I enjoy it so much. I am not so fortunate as some of my cousins, as I do not get to school in the winter. I expect to start the first of April, and have to go alone, as I have no brothers or sisters. I take music lessons, and am getting along very well.

WINETTA L. B. HUNTER (age 10).  
Shelbourne, Ont.

I will try to write you a letter. I have never written one before, so I hardly know how to begin it. I have read your stories in "The Farmer's Advocate," and like them very much. They are very interesting. I have about half a mile to go to school in Mitchell, but I like the walk. I am in the Third Book at school. IRENE BROOK (age 9).  
Mitchell, Ont.

This is the first letter I have written to "The Farmer's Advocate." I attend a country school, about two miles from my home, which is situated on a little hill, about a mile and a half from town. I think skating is better than any other game. My two brothers and I went to the rink nearly every night in the winter, and there spent delightful times. I tried a few competitions, each time managing to get honorable mention. I never expect to get a prize, as I am very poor in composition. I will close now, wishing "The Farmer's Advocate" every success.  
CONNIE HUTCHINSON.  
Mount Forest, Ont.

RIDDLES.

1. If you got tired of the world, what would you do?
  2. Mamma Bigger, papa Bigger, and baby Bigger, which was the bigger in Bigger family, and why?
- Answers: (1) Take "The Farmer's Advocate." (2) Baby was the Bigger because it was a little Bigger.

Recipes.

Leimon Cake.—One cup sugar, 4 eggs, 3 tablespoons sweet milk, 3 tablespoons melted butter, 3 teaspoons baking powder, 1 cup "Five Roses" flour. Bake in layers, and put leimon filling between.

Coffee Snaps.—Half cup molasses, ¼ cup sugar, ¼ cup lard and butter (mixed), a little salt, ¼ teaspoon soda dissolved in ¼ cup strong coffee. Beat well and add enough "Five Roses" flour to roll.

A student in India was laboring hard over the English language. "A hawk carried off the chickens," said the Hindu-stanes. After severe mental effort, the sentence appeared in English as follows: "The kite aloped with the hen's daughters."—[Epworth Era.]

FIRE SALE

We find ourselves crowded up with instruments taken in exchange for the celebrated Nordheimer Pianos. We want the room occupied, and have decided to FIRE THEM OUT at the following prices:

Square Pianos.

Glen & Co., 6 octaves	- - -	\$35
Gilbert, 6 octaves	- - -	40
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Nitschke, 7½ octaves	- - -	75
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Haines Bros.	- - -	125
Heintzman & Co., 7½ octaves	- - -	150
Chickering 7½ octaves	- - -	175

Organs.

Thomas, 5 octaves, 9 stops	-	\$25
Doherty, 5 octaves, 10 stops	-	25
Karn, 5 octaves, 9 stops	- -	25
Dominion, 5 octaves, 9 stops	-	30
Dominion, 5 octaves, 10 stops	-	35
Bell, 5 octaves, 7 stops	- -	25
Doherty, 6 octaves, 10 stops	- -	45
Karn, 6 octaves, 10 stops	-	50

And thirty-three other organs, ranging in price from \$5 to \$55.

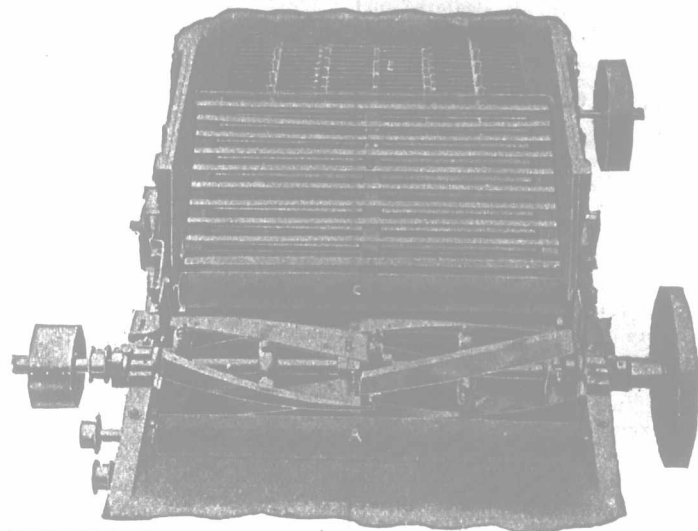
TERMS—Under \$100, \$5 cash and \$4 per month; over \$100, \$10 cash and \$7 per month. Freight prepaid to all points within 100 miles of London. Correspondence solicited.

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AND THE BLOOD CAN ONLY BE  
PURIFIED BY THE HEALTHFUL  
ACTION OF THE LIVER AND  
KIDNEYS.

### DR. CHASE'S KIDNEY-LIVER PILLS

At this season of the year, as at no other, the importance of pure blood is brought home to the minds of most people. As the result of artificial winter life—living on artificial foods and being shut up in badly-ventilated rooms—the liver and kidneys become clogged and sluggish in action, the bowels constipated, and the blood loaded with poisonous impurities.

Is it any wonder that spring finds us run down in health, and feeling languid and fatigued? Is it any wonder that our systems become an easy prey to every form of disease which lurks in the spring air? Is it any wonder that we have aching heads and aching backs and suffer from indigestion and biliousness?

Dr. Chase's Kidney-Liver Pills are especially suitable as a spring medicine, because they act directly on the liver and kidneys and enliven the action of these great blood-filtering organs.

Except by the action of the liver and kidneys, there is no means by which the poisonous impurities can be removed from the blood. With these organs in health, a person is almost immune from colds and all forms of contagious disease.

Dr. Chase's Kidney-Liver Pills should not be confused with medicines which merely act on the bowels. They do effect prompt motion of the bowels, and they do infinitely more, for by setting the liver right they bring about a good flow of bile and thoroughly cure constipation.

Biliousness, liver complaint, constipation, kidney derangements and impure blood cannot exist when Dr. Chase's Kidney-Liver Pills are used. And there is a great satisfaction in using a medicine which has stood the test of time and proven its right to a place in every home as a family medicine of worth and reliability.

Put Dr. Chase's Kidney-Liver Pills to the test, and you will avoid the usual ills and weaknesses of spring. One pill a dose; 25c. a box; at all dealers, or Edmandson, Bates & Co., Toronto.

#### April Weather.

Now clap your hands together,  
For this is April weather;

And love again is born;  
The west wind is caressing,  
The turf your feet are pressing  
Is thrilling to the morn.

To see the grass a-greening,  
To find each day new meaning  
In sky and tree and ground;  
To see the waters glisten,  
To linger long, and listen  
To every waking sound!

The mourning dove, is cooing,  
The husky crow is wooing,  
I hear his raucous vows;  
The robin's breast is glowing,  
Warm hues of earth are showing  
Behind the early plows.

Oh, soon with heaping measures  
The Spring will bring her treasures  
To gladden every breast;  
The sky with warmth a-beaming,  
The earth with love a-teeming—  
In life itself new zest!

—John Burroughs.

Energy of character has always a power to evoke energy in others. It acts through sympathy, one of the most influential of human agencies. The zealous, energetic man unconsciously carries others along with him. He exercises a sort of electric power which sends a thrill through every fibre, flows into the nature of those about him, and makes them give out sparks of fire.—Samuel Smiles.

## About the House.

### Food Values—No. I.

There is a constant waste going on in the human body. Every act which calls a muscle into play, every thought we think, wears out some portion of our "mortal coil," and, were we neither to move nor think, wear would still go on, because of the involuntary action of the different internal organs and the chemical changes continually going on in the body.

To make up for this waste, then, is part of the duty of the food we eat. Other constituents of that food go to supply warmth and energy—the power by which we work and are kept in mood for working. Hence, if we wish not only to live, but to accomplish the very best work, whether physical or mental, of which we are capable, we must see to it that we eat in sufficiency, and of the right kinds of food.

Most of our food may be divided into two great classes:

1. Organic, to which meats, cereals, vegetables, milk, etc., belong.

2. Inorganic, comprising the various salts, lime, phosphorus, etc., and water.

The first, or organic division of these, may be subdivided as follows:

1. Nitrogenous: 1. Proteids,  
2. Albuminoids.
2. Non-nitrogenous: Carbohydrates,  
Fats.

Of all these, the work of building up and repairing the wasting tissues of the body, falls wholly upon water, the mineral elements, and the proteids. To the proteids belong such substances as casein (found in milk and cheese), myosin (of meats), gluten (in cereals), legumin (of peas, beans, etc.).

To the other divisions, albuminoids (e. g., gelatin), carbohydrates (e. g., sugar and starch), and fats (fat of meat, butter, olive oil, etc.), is assigned the task of supplying heat and energy.

#### MIXED DIET NECESSARY.

At the most casual reading, then, of this brief outline, it must be seen that it is necessary to have a mixed diet. It is not wise to live on proteids alone, or on carbohydrates alone; and water is an absolute necessity. In fact, the majority of people do not drink nearly enough water. The minerals needed come to us in many foods, often when we least suspect them, but these will be more especially dealt with later.

Of course, there are certain tribes of the human race which live chiefly upon one kind of food, e. g., the Eskimaux, with their meat and fat diet. In this case, owing to the coldness of the climate, an excess of meat and fat is a necessity; but, without exception, the higher types of mankind are not "one-food" people.

#### RESISTANCE TO DISEASE.

For another reason, too, it is necessary to have a nutritious and well-balanced diet: that is, the comparative power to resist and throw off disease which it confers. A poorly-nourished body, or one improperly fed, can neither do its work as well, nor throw off disease as well as one continually kept in good condition. Especially has this been noted in the case of tuberculosis, whose bacterium seems to find its very best soil in the under-nourished body. For this reason is it that the very best foods possible—new milk, cream, good beef, eggs, olive oil, cod-liver oil—are always prescribed for those who have any tendency towards this disease.

#### ECONOMY: WISE AND OTHERWISE.

It will be seen, then, that those who deny themselves the most nourishing foods, in order that they may spend more money otherwise, are likely to be but robbing Peter to pay Paul. One should not lightly curtail the meat, eggs and butter rations on a farm in order that things which can be done without may be purchased. Too often, it is to be feared, parlor carpets and furniture, and silverware for the table, are obtained at the expense, to a greater or lesser degree, of strength, and even health itself.

Vegetarianism, it is true, is in many districts gaining ground. Yet, invariably where it has been tested most successfully, it will be found that such foods

as cheese, nuts, olive oil, etc., have been plentifully supplied to take the place of the eliminated meat, while in most instances eggs have been added.

Some will point, as did Thoreau, at the "grass-fed oxen" hauling the heavy load, while the meat-fed man walks behind in pigmy strength; and, on the face of it, this looks like a formidable argument in favor of pure vegetarianism. When one considers, however, that the intestine of herbivorous animals is especially adapted to such diet, being half as long again, proportionately, as that of the human body, its fallacy appears. Had the human race devoted itself to such fare for an æon or two, it, too, might have developed such a set of assimilating organs. As such was not the case, however, it might be even dangerous to adopt too drastic a change, and if, from humane or other reasons, it is decided to do without meat, compensation must be made.

#### "WHIMS," ETC.

As a general rule, then, for normal, healthy people, it may be said that a mixed diet is best. Of course, there are always people with "whims," for which probably, there is always some good, if unknown, physiological reason. We have all met those who cannot touch milk or fat. There are those, too, who, by reason of disease, must be put on especial diet. But we do not propose to deal with special cases of invalidism in this department. Our talk is chiefly for those who are well, and who intend, if possible, to keep well, and for those, who, without any malady requiring especial treatment, wish to attain better health by more judicious feeding.

Once more, then, we would repeat, you must have a varied diet, and, if your stomach "troubles" you, keep a watch, and cut out from or reduce in your bill-of-fare anything that seems to raise a disturbance. What may be good food for one, it must be remembered, may be very bad for another. It is, of course, possible, that some foods may cause no feeling of uneasiness in the stomach, and yet be but poorly absorbed into the body. Of this phase of the subject, however, we cannot now speak.

And now, we have just come to the point at which we may really begin. We should like, following out "Jack's Wife's" suggestion, to proceed straightway to "meat and meat-eating," but will be obliged to leave that until a later date. In the meantime, however, we will close by saying, while guarding against insufficiently nutritious food, do not over-eat. Over-eating is always, sooner or later, disastrous. Have a well-planned bill-of-fare, eat slowly and in moderate quantity, and chew your food well—so you will have taken three not inconsiderable strides towards good health and strength.

#### Housecleaning Hints.

To Clean Windows, Picture-glass, etc.—Use very hot water to which a tablespoonful kerosene has been added. Wring a cloth out of this quite dry, go over the glass, then polish with clean, dry cloths.

To Clean Oil Paintings—Wash a raw potato, and cut in two. Go over the painting with the cut surface, cutting off a slice as soon as dirty. Lastly, rub the painting gently with a soft rag.

To Clean Gilt Frames.—(1) Apply white of egg, with a little soda mixed in, with a camel's hair brush. (2) Wash, gently, with water in which onions have been boiled. (3) Dissolve 1 tablespoon washing soda in 1 pint hot water. When cold, add 1 pint lime water. Wring a sponge out of this, and go over the frame quickly; sponge off with cold water, and dry with cotton batting. Clean only part of the frame at a time in order to get it dry as quickly as possible.

To Clean Glass Bottles. Put a tablespoonful salt or soda, and 2 tablespoonfuls vinegar, with a small potato (chopped fine), into a bottle. Shake well, and rinse with cold water.

To Revive Leather-covered Chairs.—Take 1 part good vinegar and 2 parts linseed oil. Shake, and apply with a soft rag, afterwards polishing with an

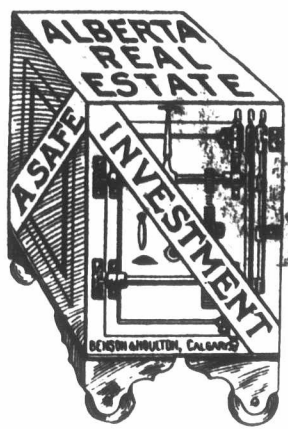
### BELL'S STEEL LAND ROLLER

Made in four sizes. Heavier and stronger, size for size, than any other. The drums are specially prepared steel—and can't be dented by rocks or stumps.

The frame is all angle steel—never known to sag. Low hitch makes the easiest draft.

Steel seat spring—and pressed steel seat. Altogether, the trimmest and best land roller on the market.

Free illustrated catalogue if you write for it, mentioning this paper.  
B. BELL & SON, Limited, St. George, Ont.



# F A R M S

Send for our list of Alberta farms for sale.

Benson & Houlton, Calgary, Alta.

## Grand Trunk Railway System

### SINGLE FARE

FOR EASTER

Going April 12, 13, 14, 15 and 16.  
Returning until April 17.

Between all stations in Canada; also to Buffalo, Niagara Falls, N.Y.; Detroit and Port Huron, Mich.; Chicago, Ill.

Reduced rates also in effect to St. Paul and Duluth, Minn.

For tickets and full information call on E. DE LA HOOKE, City Pass. Agent; E. RUSE, Depot Ticket Agent, or J. D. McDONALD, D. P. A., Toronto.

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Good Soil  
Good Crops  
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A line to the Secretary

## BOARD OF TRADE, Edmonton, Alberta,

will bring interesting information about 20,000 square miles of land where just these conditions prevail.

Please mention this paper.

## WALL PAPER

Sold by mail by the cooperative method saves for the customer from 25 to 100 per cent. Write for samples, telling us what rooms you wish to paper. **The Canadian Co-operative Concern, Limited, Hamilton, Canada.** See our other advertisement in this paper.

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



old piece of soft silk or a bit of chamolis.

To Restore Whiteness of Ivory Knife-handles.—Apply turpentine, or whiting and alcohol, with a bit of flannel. Alcohol applied to piano keys twice a week will preserve the color.

To Remove Old Putty from Windows.—Heat an iron rod and pass slowly over the putty, then remove the putty as quickly as possible.

To Clean Blackened Ceilings.—Wipe with a flannel cloth dipped in strong borax water.



A Budget from the Chatterers.

Dear Dame Durden,—Enclosed you will find some more of my trash. Was it wrinkles that told us about baking bread in a biscuit-box? It's fine, anyway, and fruitcake cuts nicely made in the same tin.

Yours very truly, MRS. J. H. T.

Victoria Co., Ont.

We are very sorry that we shall not be able to publish any more poetry in the Ingle Nook. Thank you, all the same, Mrs. J. H. T.

From "A Young Housekeeper."

Dear Dame Durden,—I hope you'll not think I am presuming in writing again so soon, but this is to be brief—just to thank all the kind Nookers who contributed recipes for chocolate pie and Banbury tarts. I have tried recipes of both, and found them good. My Banbury tarts were just excellent, and you would have thought so, too, had you seen how they went. If ever you go into housekeeping, Dame Durden, instead of editing the Ingle Nook page—which I hope won't be for a while—make Banbury tarts for your household. And now I am sending a recipe for tomato salad, which, used as a relish with hot tea biscuits, is excellent.

Tomato Salad.—Peel half a dozen good-sized ripe tomatoes, nice, round, smooth ones, and break into pieces about the size of walnuts. With these, put in your salad bowl a small bunch of celery, cut fine, and half a cup of shredded chicken, or any very tender, left-over meat, and, over all, pour a thin salad dressing, and serve.

This makes a large salad. You can use smaller quantities, if desired.

A YOUNG HOUSEKEEPER, Peel Co., Ont.

To Clean White Furs.

A correspondent says that white furs can be beautifully cleaned by carefully rubbing dry plaster of Paris into the fur with the hands until every part has been cleaned. Shake the fur until all the plaster—which is ground fine, like flour—is shaken out. Wipe over the fur with a clean white dry cloth, and it will look like new. Corn meal, heated in the oven, is satisfactorily used for the same purpose.

Another New Member.

Dear Dame Durden,—I would like to come into the corner for a little while. I do enjoy the chats so much. I would like to help someone, if I could, and as I have been very successful in canning corn, I will send my recipe.

When the corn is "just right," and not too hard, cut the kernels from the cob with a sharp knife. Get your cans ready, and be sure they are thoroughly sterilized. Then put some corn in, and stamp it with a hard-wood stamper made for the purpose, until milk rises. Repeat until the can is full and the milk runs over, then put a little more corn on the top. Always use new rubbers, and be sure to put the cover on as tightly as possible. Put a layer of singles on the bottom of a boiler, then set the cans in so they will not touch one another. Then nearly cover with water, and boil three hours; take out, and tighten covers every few minutes while cooling. Lastly set the cans in a cool, dark place. If this is done right, the corn will be as fresh in the spring as when canned.

H. E. G., Frontenac Co., Ont.

Soap—Doughnuts.

To Dame Durden,—I have been a silent admirer of your page for some time, and at last could not refrain from joining your pleasant circle. I very much enjoy the practical hints, recipes, etc., sent in from week to week. It is always the first place I turn to when "The Farmer's Advocate" comes. I will send a couple of recipes, which I hope your readers may find useful. One is for doughnuts made without eggs, and which are very nice, and another for hard soap, which has been used in our family for years, and is an excellent laundry soap and toilet soap as well. Tallow is to be preferred, but any kind of kitchen grease, if nicely rendered and strained, will answer. Hoping I have not taken up too much space, and crowded something better out.

NORA CREINA, Oxford Co., Ont.

Hard Soap.—Five lbs. of dripping; put 3 pints of water on the contents of one can of lye (Gillett's); let it stand for about an hour, stirring occasionally with a stick. Then add one teacup of ammonia, and one heaping tablespoon of powdered borax. Melt the grease, and strain, if necessary. Pour the grease into the above preparation, stirring constantly until about the consistency of honey. Line a dripping-pan with greased paper, pour in the soap, and leave for twenty-four hours to harden. Use perfume, if preferred.

Doughnuts.—Take one quart of flour and three teaspoons baking powder, and sift together; piece of butter, the size of an egg; one cup of sugar; one pint of sweet milk; a little nutmeg; one dessert-spoonful of cornstarch; mix in the milk. Rub the butter in the flour and powder; put in other ingredients, mix to a soft dough; add more flour, if needed; roll one-half inch thick, and fry in hot lard till a delicate brown.

Answer to Lizzie.

Dear Dame Durden,—In looking over "The Farmer's Advocate," I saw a request from Lizzie for recipe for polishing horns. As I have had some experience in that, I have sent the recipe. First wash the horns, and clean them well, then scrape them evenly with a fine piece of glass; then rub them well with a fine piece of sandpaper, till good and smooth. Next wet some whiting, and rub well. Polish well with dry whiting. Rubbing with the bare hand will produce a beautiful gloss. Hoping this hint will be helpful, I remain an interested reader.

FARMER'S WIFE, Simcoe Co., Ont.

Book List—Carnival Dress.

Dear Dame Durden,—I have been an interested reader of the "Ingle Nook" for some years, and have received many useful ideas and recipes from it. I am a farmer's wife, and find life very lonely after living in a large town. I have lately joined the Mechanics' Institute, and would like you to give a list of books that would be helpful to me. Also could you tell me where I could get a book of designs for fancy dress for carnivals and parties?

DOLLY VARDEN, Ontario Co., Ont.

It is rather hard for me to give you a list of books, since I know nothing of your tastes. I would not, if I were you, confine myself wholly to fiction. Burrow around in your library, and see what books there are on the shelves, then dip in, a little here, a little there, according as things attract your attention. Biographies are almost invariably

POULTRY AND EGGS

Condensed advertisements will be inserted under this heading at two cents per word each insertion. Each initial counts for one word, and figures for two words. Names and addresses are counted. Cash must always accompany the order for any advertisement under this heading. Parties having good pure-bred poultry and eggs for sale will find plenty of customers by using our advertising columns. No advertisement inserted for less than 30 cents.

AI BARRED Rocks exclusively. Our winners at Guelph: First pullet, special for best pullet and special for best female. At Detroit: First pullet, second cockerel, second cock, and special for best shaped male. Making list free on application. Eggs from \$3 per setting up. Jno. Pringle, Proprietor, London, Ont.

A SNAP—Eggs from S. C. White Leghorns that lay the year round, 75c. per setting; three settings, \$2; one hundred, \$4. Geo. A. Easton, Jr., Whitney, Ont.

BARRED Rocks exclusively. Eggs \$1 setting. Fred Auston, Brighton, Ont.

BARRED ROCKS—Eggs from exhibition stock, \$2 per 15; utility, \$1 per 15. W. W. Davidson, Auburn, Ont.

BARRED PLYMOUTH ROCKS.—Eggs from choice exhibition matings. Write for full particulars before buying elsewhere. W. W. Dods, Alton, Ont.

CHOICE Barred Plymouth Rock eggs from hens selected for their perfect barring, size and persistent laying qualities, having run of orchard, mated with AI vigorous cockerels, "National strain." Price, \$1 per 13, or three settings for \$2. W. C. Shearer, Bright, Ont.

EGGS FOR HATCHING from selected imported Barred Rocks, \$1 per 13. A. E. Sherrington, Walkerton, Ont.

EXTRA choice pure Barred Rock eggs for sale. Price, one and two dollars per setting. A. S. Werden, Aneidia Farm, Bethel, Ont.

EGGS from imported prizewinning Minorcas, Orpingtons, Rocks, Wyandottes, \$1 per setting. William Manley, Bridgen, Ont.

EGGS FOR HATCHING—Every pen prize-winner. White and Golden Wyandottes; Single-comb, White and Brown Leghorns; White Rocks; Buff Orpingtons and Single-comb Black Minorcas. Price \$1.25 for 13 carefully-packed fertile eggs, or \$6.50 per hundred. Minters Poultry Yards, Hanover, Ont.

EGGS FOR HATCHING.—Barred Rocks, Pekin ducks, Bronze turkeys. Mrs. Howard, "St. Julian's," Sutton West.

EGGS from the wonderful winter-laying strain of Barred Rocks for sale at 75c. per 15, or \$3 per 100 eggs. Collins-Holywood Production 70785, at stud. Glencairn Kennels, R. E. Clarke, West Lorne, Ont.

EXHIBITION Buff Orpingtons—Winners at Eastern Ontario, March 1906: Every prize except third cock. Eggs, \$5 per 15. A. W. E. Hellyer, Ottawa South, Ont.

EGGS—Dollar fifty, fifteen. Buff Orpingtons; Wyandottes—Buff, White; Rocks—Barred, White. A. J. George, 52 Clarence St., London.

EGGS FOR HATCHING—Pure-bred stock; carefully selected. White Wyandottes and Buff Orpingtons. Settings \$1, or \$6.50 per hundred. Miss Beardmore, P. O. box 191, Toronto.

EGGS for hatching: Single-comb White Leghorns. Pen headed by 1st cockerel at Western Fair. Also Buff Wyandottes. \$1 per 15 eggs. George Lewis, Ballymote.

EGGS for hatching—Mammoth Bronze turkeys, Silver-Gray Dorkings, Barred Rocks, from imported stock. Alfred E. Shore, White Oak, Ont.

EGGS FOR HATCHING and stock for sale of the different varieties—Barred Rocks, White, S. L. and Partridge Wyandottes, also Buff Orpingtons—at \$1 per 13 eggs. Imported Pekin duck eggs, \$1 per 9 eggs. Mammoth Bronze turkey eggs, \$2.50 per 9 eggs. Stock A. I. D. A. Graham, Wanstead.

FOR SALE—White Wyandotte cockerels (Folch's strain). Grand blocky birds. Eggs now ready. J. A. Cerswell, Bond Head.

FIFTY good Buff Orpington pullets for sale cheap. Eggs, \$1 per 15—nice chicks guaranteed. H. A. Scott, Caledonia, Ont.

LAYERS, great payers, prizewinners; won over 200 firsts at seven shows, including Ontario. Eggs, per setting, \$1, or \$5 hundred, from Barred and White Rocks, White and Silver-laced Wyandottes, Brown and White Leghorns, Black Javas and Buff Orpingtons, Black Orpingtons and Blue Andalusians, \$2 per setting. F. W. Krouse, Guelph.

LITTLE chicks shipped any place from pure Wyandotte, White and Barred Rock. Also manufacture best brooder on market. Circulars, Box 20, C. A. Thompson, New Washington, Ohio.

MAMMOTH Pekin duck eggs 75c. per setting. Will exchange for other breeds. A. Gilmore, Athelstan, Que.

PRIZEWINNING White Rocks and Buff Orpingtons, heavy-laying strains; eggs \$1.50 per setting. Wm. A. Rife, Hespeler, Ont.

RHODE ISLAND REDS (rose comb). Bred seven years from carefully-selected heavy winter layers. Large brown eggs. Good hatch guaranteed. Fifteen eggs one dollar half. Jno. Luscombe, Merton, Ont.

ST. CLAIR Mission, Sarnia, Ont. Rev. Walter Risby. White Wyandottes, Leghorns, Barred Rock eggs. Fifteen, one dollar. Few cockerels. Write.

SELECTED LAYERS—Imported Buff Orpingtons (Martins), White Wyandottes mated with (Dustons) (Hawkins), Barred Rocks mating (Boyces); \$1 per 15; \$5 per 100; fertility tested. Callanan Bros., Haysville, Ont.

TRY Valley Mills Poultry Farm for 90% fertile eggs from best laying strains S. C. W. Leghorns in existence. Eggs \$4.50 per 100, \$1 per 15. E. C. Apps, box 221, Brantford, Ont.

WE have what you want in Barred Rocks and Houdans. Eggs from winning stock. Dollar fifty fifteen. Write for particulars. Smith & Browne, Columbus, Ont.

WHITE Wyandotte eggs from select stock. Martin strain. Write for prices. A. Witmur, Berlin, Ont.

WE HAVE FOR SALE now twenty White Wyandotte cockerels; also fifty White Leghorn cockerels, hens and pullets. All good stock. Prices reasonable. For further information address: Fairacres Poultry Co. (T. B. Balfour, Manager), Gordon, Essex County, Ont.

WHITE Plymouth Rock eggs for hatching—\$1 per setting. Wm. Honsberger, Jordan.

WHITE Wyandottes, the popular business breed, Duston strain. W. D. Monkman, Bond Head, Ont.

WHITE Rock eggs for hatching, \$3 per 15. Good hatch and satisfaction guaranteed. Geo. M. Sheperdson, Sombra, Ont.

WHITE PLYMOUTH ROCK eggs, \$1 per 13. Good layers. Large stay-white strain. C. E. Smith, Scotland, Ontario.

WHITE Wyandottes exclusively. Strongly fertilized eggs from heavy laying Martin and Duston strain one dollar per fifteen. Five dollars per hundred. Daniel Y. Green, Brantford.

223 EGGS per hen.—I breed for eggs, and White Rocks exclusively. Eggs \$2 per 13. W. B. Winters, Carleton Place, Ont.

187 EGG STRAIN Buff Orpingtons. Bred from England's greatest layers. Five years' experience breeding and importing. \$1 per 15; \$5 per 100. Everard Brown, Haysville, Ont.

MEN WANTED to advertise and introduce our stock and poultry compounds to farmers and dealers. Work during spare time or permanently. This is an exceptional opening for a hustler. Write for particulars.

GOLDEN CREST CO., 48 Bathurst St., London, Can.



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

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 50 cents.

FARM hand, age 20, seeks situation on good farm in Ontario; good milker; \$20 per month and board expected. Address X. Y., Farmer's Advocate, London, Ont.

FOR SALE—Seed peas (Canadian Beauty) very choice. Beardless barley and seed corn. John Milliken, Springbank, Middlesex.

FOR particulars of Nanton farm lands, write Loree & Campbell, Nanton, Alta.

FOR SALE—The right to manufacture fruit drier; works in connection with stove or register; handy, simple and effective; will last a lifetime. Particulars, Geo. McKay, Kilsyth.

FARM to rent in Red River Valley—640 acres; all fenced; 300 in cultivation; good buildings, good water, plenty of wood; within three miles of railroad station. Tenant must provide all his own equipment. Long lease to satisfactory tenant. Apply Box 44, Farmer's Advocate, Winnipeg, Man.

FARM manager wanted—A working foreman on a farm of 350 acres, near Toronto. One capable of taking full charge of a stud of Clydesdales. Must be industrious and have good control of hired help. Apply by letter only, giving full particulars as to height, age, family, amount of wages, and copies of recent testimonials, to Dr. W. Mole, Veterinary Surgeon, 443 Bathurst Street, Toronto, Ont.

GATE LATCH, with adjustable keeper; patented in Canada and United States. Send 75 cents for sample, complete, except three common bolts. Reduction made on quantity. Alex. Murray, Woodstock, Ont. box 812.

IMPROVED farms for sale in the Edmonton district. Candy & Co., Edmonton, Alta.

IMPORTED seed oats. Garland's Champion Prize. Imported potatoes, Imperatus, phenomenal yielders. Bush, one dollar—ten bush, eighty cents. Also best collies. James Esdon, Bainsville, Ontario.

MARRIED MAN—On farm—Canadian preferred. Stake wages. Yearly engagement. Send references. Henry Sanders, Estevan.

RED Deer Lands—For fall wheat and mixed farming lands come to Red Deer District—the centre of Central Alberta. Write for particulars. Michener & Carscallen, Red Deer, Alta.

WESTERN farm lands for sale. Correspondence solicited McKee & Demaray, Regina, Sask.

WANTED—MEN—Railroads in Canada, passenger brakemen, firemen, electric motor-men, conductors. Experience unnecessary. Particulars for stamp, Dept. 75, Inter. Ry. Inst., Indianapolis, Ind., U. S. A.

WANTED—Situations for housekeepers from Great Britain. Mostly widows, with one or more children. Apply, Brigadier Howell, Salvation Army Immigration Department, Albert Street, Toronto.

3 PER DAY selling the "Auto-Spray." Best automatic hand sprayer made. Sample machine free to approved agents. Cavers Bros., Galt.

At the sale of Shorthorns, on April 4th, at the Rosevale Farm, of W. J. Shean & Co., Owen Sound, Ont., which was well attended, the cows averaged \$150 each. The heifers were a nice lot, and brought fair prices. The bulls were all too young for this season's service, except Missie Marquis, which sold for \$105. The stock bull, Derby (Imp.), is still retained on Rosevale Stock Farm. The fillies and mares made an average of \$307 each.

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**\$100 saved on a PIANO** Wouldn't you like to know about our wonderful co-operative plan of selling pianos, a plan that will save you \$100 on a fully guaranteed extra high-grade piano. Would you like to buy a piano for \$175 that an agent would charge you \$275 to \$350 for? Send for our catalogue. It shows high-grade **Pianos, Organs, Sewing Machines, Buggies, Incubators**, as well as nearly every other line of goods. All sold on the low-priced co-operative plan.

**THE CANADIAN CO-OPERATIVE CONCERN, LIMITED.**  
A departmental store owned by the people. **Hamilton, Canada.**

Formal Opening on Wednesday Afternoon, April 25, by H. R. H. Prince Arthur of Connaught.

**TWELFTH CANADIAN HORSE SHOW**

Toronto Armouries, Wed., Thur., Fri., Sat., Apl. 25, 26, 27, 28  
\$8,000 in prizes. Every class well filled.

Those living out of Toronto can secure reserved seats by writing the Manager, Stewart Houston, Massey Hall, Toronto. Prices: Evening—\$1, \$1.50, 50c.; Afternoon—\$1, 50c. **Reduced Rates on all Railways.** Return tickets at single fare, good going April 25. At fare and a third, good going April 26, 27 and 28. All tickets good to return up to Monday, April 30.

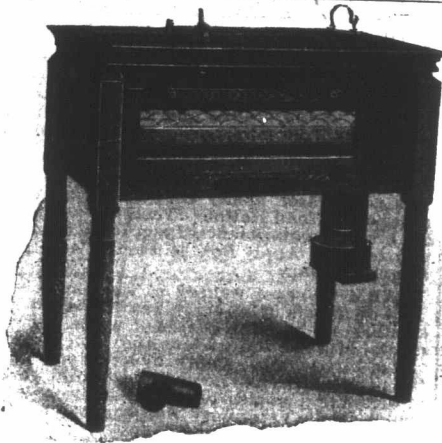
**Great Dispersion Sale**

I will offer for sale by public auction, at my farm here, on

**WEDNESDAY, MAY 2ND, 1906,**

my entire herd of Scotch and Scotch-topped Shorthorns, including the imp. stock bull, Red Archer =4014=, twenty young bulls, seventeen cows (some with calf at foot), and eighteen heifers; also three heavy young Clyde horses, one span Roadster, and a few farm implements. Sale of horses and implements at 11 a. m.; cattle at 1 p. m. Luncheon at 12 o'clock. Terms of sale: Six months' credit on joint approved notes; 2 1/2 per cent. off for cash. Full particulars in catalogue. **Send for one.**

**A. HAGAR, Belleview Stock Farm, PLANTAGENET, ONT.**  
**MR. GEO. JACKSON, Auctioneer.**



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WE consider we are manufacturing the **Best Line of Incubators and Brooders** built in Canada today. We have received hundreds of letters from our many customers congratulating us on their success with the **Hamilton**. Give the **Hamilton** a trial and you will be pleased.

All goods sold under a guarantee. We also manufacture the famous **Jones' Patent Elevator**, for unloading Hay and Grain.

For catalogue and price lists write **The Hamilton Incubator Co., LIMITED, HAMILTON, CANADA.**

**American Fence Talks**

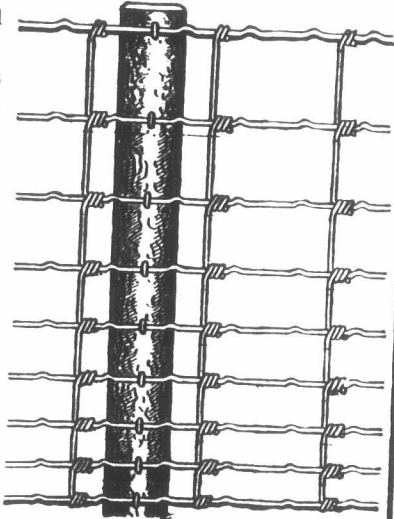
**A**MERICAN FENCE is standard of the world. More miles of it are in use than all other fences combined.

It is made of steel that is exactly fitted for it. A woven-wire fence can be made of wire too soft or too hard. It must be exactly right to render good service.

The structure of the American Fence is perfect. It is built of big, solid, galvanized wires, all No. 9 gauge if you prefer it, with the upright or stay wires hinged; in all heights and for all purposes.

American Fence and Gates are for sale by dealers everywhere, or write us direct and we will send you a catalogue free, and tell you where you can get the fence and save money.

Manufactured by **The Canadian Steel & Wire Co., Limited, HAMILTON, ONTARIO.**



**Advertise in the Farmer's Advocate.**

entertaining and instructive. Try Mrs. Gaskell's Life of Charlotte Bronte, if it is there, also lives of any of the celebrities: Nelson, Napoleon, the English poets, Goldwin Smith's Jane Austen, any of the Morley's "Men-of-Letters" series. . . . In nature books, too, we are sure you will find much pleasure. Try any of John Burrough's delightful books, or those by William Wentworth Higginson, and, perhaps, Thoreau's "Walden." . . . Among the essayists, Lamb, Irving, Carlyle's Hero-worship, MacCauley, and a score of others will be found well worth the reading, while among the novelists, you can scarcely go astray in choosing books by any of

the standard authors—Dickens, Scott, Thackeray, George Eliot, Bronte, Austen, Hawthorne and others. If you want to read the "latest" fiction, you might consider the following list of "best sellers for last year, as given by the 'Bookman': The Princess Passes, The Garden of Allah, Sandy, The Masquerader, The Sea Wolf, The Prospector. As the poets have been so freely discussed in our "Literary Society" department during the past few weeks, I shall not give a list of them. Your question re a book on carnival dress will be answered as soon as I can find out the name of a good publication.

**TRADE TOPIC.**

**THE CO-OPERATIVE PLAN.**—The Co-operative plan of buying, which has proven such a great success in the Old Land, is working out satisfactorily in this country, under the Canadian Co-operative Concern, of Hamilton, Ont. This company announces that they can supply all the needs of any family, and do so cheaper than any individual can buy. Our readers should investigate this system, which they can do by writing to them, mentioning this paper, and asking for their fine new catalogue.

**PRINCE ARTHUR OPENS SHOW.**

The twelfth Canadian Horse Show will be held in Toronto on April 25th, 26th, 27th and 28th. It will be opened by H. R. H. Prince Arthur of Connaught, whose presence on the first two days will add even greater eclat to the event, which is in itself most brilliant. The boxes will be sold by auction on Tuesday, April 17th, at the Kind Edward Hotel. Over \$8,000 will be distributed in prizes and cups. Reduced rates are offered on all railways, at a single fare for the round trip, good going April 25th, and at a fare and a third, good going April 26th, 27th and 28th; all tickets being good to return on or before Monday, April 30th.

**TO EXPERIMENT WITH POTASSIC MANURES.**—Mr. B. Leslie, Emslie, a native of Aberdeenshire, Scotland, who has been two years in the head offices of the Kali Syndikat, Stassfurt, Germany, has recently come to Canada, and opened an office in Holbrook Chambers, 104 Spark St., Ottawa, from which a general educational propaganda will be carried on, with a view to increasing the demand for potash in commercial fertilizers. As many of our readers are aware, the world's supply of commercial potash, apart from the large quantity available in wood ashes, is practically confined to these German mines. The other elements of fertility, viz., nitrogen and potash, are available from various sources in America, and it is usually to the advantage of fertilizer companies to make goods with as low a potash percentage as is consistent with good results. This has sometimes led to skimping on the potash, which, as everyone knows, is essential for economical-crop production, more especially since a generous supply of it goes far to insure a good growth of clover, which, in turn, gathers free nitrogen from the air. It is the aim of the Kali Company to have experiments conducted all over the country to demonstrate the economy of using fertilizers of comparatively high potash content. Mr. Emslie has charge of this work, and will also be pleased to receive inquiries about fertilizers. Valuable literature on the subject of fertilizers may be had on application to his Ottawa address.

**Buffalo.**

Cattle—Prime steers, \$5.35 to \$5.85; shipping, \$4.75 to \$5.25; butchers, \$4.25 to \$5; heifers, \$3.50 to \$5; cows, \$3.10 to \$4.65.  
Veals—\$5 to \$8.25.  
Hogs—Heavy, mixed and Yorkers, \$6.70 to \$6.75; pigs, \$6.60; rough, \$6.50 to \$6.10; stags, \$4.25 to \$4.75.  
Sheep and Lambs—Lambs, \$4.25 to \$5; yearlings, \$6 to \$6.35; wethers, \$4.75 to \$6.25; ewes, \$3.50 to \$5.75; mixed, \$3 to \$5.75.

**Chicago.**

Cattle—Common to prime steers, \$4 to \$6.10; cows, \$3.10 to \$5; heifers, \$2.75 to \$5.50; bulls, \$2.50 to \$4.25; calves, \$2.75 to \$6.75; stockers and feeders, \$2.75 to \$4.75.  
Hogs—Choice to prime, heavy, \$6.35 to \$6.42 1/2; medium to good, heavy, \$6.30 to \$6.35; butchers' weights, \$6.35 to \$6.42 1/2; good to choice, heavy, mixed, \$6.30 to \$6.37 1/2; packers, \$5.70 to \$6.35.  
Sheep—Sheep, \$4.50 to \$6.50; yearlings, \$4.75 to \$6.10; lambs, \$4.75 to \$6.25.

**GOSSIP.**

At W. D. Grand's sale of 23 high-class Kentucky saddle horses (mares and geldings), at the American Horse Exchange, New York, March 28th, Mr. Grand sold the lot in an hour and a half for \$13,080, an average of \$568. The highest price was \$1,400, and 13 sold for \$500 and upwards.

At the auction sale last week of Hereford cattle, by F. A. Nave, of Attica, Ind., 62 head brought an average of \$209. The highest price, \$750, was paid by T. F. B. Sotham for the show bull, Wilkeswood Chief, three years old; sired by Wilkeswood. The highest-priced female was the show cow, Lady Albany 14th, by Albany, taken by the Hoosier Farm Co., Spencer, Ind., at \$500.

The dual-purpose Shorthorn bull advertised for sale in this paper by H. C. Graham, Ailsa Craig, Ont., is sired by the Scotch-bred bull, Sir Wilfred Laurier =36114=, while his dam has been a prizewinner at County fairs, judged from the butchers' standpoint, and first as a two-year-old in the dairy class at Guelph, testing as high as 5.6 per cent. butter-fat.

The young Shire stallion advertised for sale in this issue by Galbraith Bros., Wabash Stock Farm, Orangeville, Ont., is described as a beautiful bay—a Toronto winner—standing 16 1/4 hands, and weighing 1,900 lbs., with good disposition, handsome head and neck, oblique shoulders, massive chest, short back, well-sprung ribs, a good set of legs, and fine, silky hair, combined with good action, making him the desired type of draft horse.

The catalogue of the Belleview herd of registered Shorthorns belonging to Sheriff Hagar, of Plantagenet, Russel Co., Ont., advertised to be dispersed by auction on May 2nd, has been issued, and shows that the cattle are exceedingly well bred. The herd bull, Red Archer =4014= (imp. in dam), is a richly-bred Cruickshank Brawith Bud, sired by Mountain Archer, by the noted Scottish Archer. The red two-year-old bull, Belted Knight, is a son of Red Archer (imp.), and of the excellent Kinellar Mina family on his dam's side, as are half a score more of the 20 big yearling bulls ready for service. A like number of the females are also of this favorite Scotch family, with the best of Scotch sires appearing all down the line of their pedigrees, most of them young. Others are of good standard families of the dual-purpose sort, good milkers and quick feeders when dry—the right sort for the general farmer. We advise all interested to look up the advertisement and send for the catalogue, which gives full information as to the stock and how to reach the sale.



GOSSIP.

J. W. Wilhelm, V. S., of Shakespears, Ont., advertises a specific called a broodmare special. See advertisement.

Mr. Geo. Davis, Alton, Ont., reports the sale of the Aberdeen-Angus bull Fair Boy of Kenilworth No. 76609 to Mr. Roger Milson, of Markdale, Ont. He is a choice bull of the breed, as he is well-nigh perfect in build and quality, and Mr. Milson is to be congratulated on his excellent choice.

C. C. HANSON'S SALE.

Owing to a severe rain storm on the previous day, the roads were next to impassable on March 28th, the day of the auction sale of Shorthorn cattle and Clydesdale fillies belonging to C. C. Hanson, Coaticook, Que. The bidders were composed almost entirely of local men, and no sensational prices were obtained. The heifer, Maple Park Beauty, with her new-born calf, topped the sale list at \$190. Queen of Maple Park brought \$90, and Lady Aiyda, \$86. The cows averaged nearly \$77, and the calves sold at from \$56 to \$73, and averaged \$65 each. The three yearling Clydesdale fillies, by Macqueen (imp.), reached the following prices: Bonnie Macqueen, \$285; Macqueen's Princess, \$245, and Queen Elizabeth, \$200.

COULD ONLY COUGH UP HALF.

The following anecdote is vouched for by a military gentleman of London, Ont., who related it recently at a club meeting. We omit names to avoid unkind personalities. It was at a banquet in the city of T—, "which, as we all know, is a place where coppers are counted." One of the native guests, however, had become possessed of a five-dollar gold-piece. A sum of money like this is said to be rare in T—, and especially a gold-piece. Naturally, therefore, the owner was under obligations to himself to show it to his friends. This he did modestly by tossing it gently, and letting it drop on the table. Finally it missed the table, and falling on the floor was swallowed by a dog belonging to a fellow banqueter, and a furor resulted. The colonel of the regiment was consulted, and he endeavored to recover the lost wealth. Calling the janitor, he said: "Pat, this dog has swallowed a five-dollar gold coin. Fix up an emetic, and then slay with him all night, if necessary." Next morning, the colonel, meeting his faithful servant, inquired: "Well, Pat, did you recover the money?" Begonia, sir, Oi sat up all night with him, but the best he could do for me was two dollars and a half."

Attention is called to the unreserved credit sale of Shorthorn cattle and Shropshire sheep (registered or eligible), together with grade cattle, work horses, drives, pigs and implements, the property of Rowat Bros., Hillsdale P. O., Simcoe Co., Ont., on Monday, April 16. The small herd of Shorthorns are all young and in good condition, including two cows, with calves at foot, sired by a Duthie-Marr combination bull from imported sire and dam; also the red three-year-old heifer, Telluria 29th, got by the great stock bull, Golden Victor—39469—, and tracing to Telluria 14th (imp.)—2268. This is claimed to be a show heifer in any company, thick, even-fleshed, with first-class handling qualities, and well gone in calf to Imp. Pride of Scotland (45213), who is from the same dam as Lord Banff (77031), sold for \$5,100 at public auction in 1901. Other good ones will be sold, notably, Orange Blossom—37705—, by Greenwood Tom—23207—, tracing to Louisa (imp.)—304—, a dual-purpose cow, making money as a milker and easily beefed when dry. A two-year-old of good form is Lady Betty, by Lord Stanley—44194—, out of Orphan Betty—32632—, by Perfection—26418—, and bred to a Scotch-bred bull. The Shropshires, 40 in all, are a good flock, mostly young ewes in breeding condition, founded on imported stock of the Evans and Mansell stock, and from imported and Canadian-bred ones, the best obtainable, and always have held their own at county fairs, consisting of 30 breeding ewes in lamb or lambs with them; three ewes that came in early have six lambs with them; some of the ewes in the flock were Pan-American winners, and all are breeders.

Mr. Frank Comfort, Shedden, Elgin Co., Ont., has recently purchased from Mr. Andrew Atchison, Guelph, the imported three-year-old Clydesdale stallion, Leanside (5015) (42638), by Sir Thomas (9681), dam by Macregor. Leanside won first in the two-year-old class at Toronto Exhibition, 1905. He is a horse of first-class character, quality and breeding, and the district he goes to is fortunate in securing the services of so good a horse.

R. Honey, Brickley, Ont., who is making a change in his advertisement of Holsteins and Yorkshires, writes that sales have been very brisk this season, and most of his sales are through his advertising in "The Farmer's Advocate." The following are some of his sales: To Earnest Deyell, Peterborough, the four-months-old bull calf, Tenson's De Kol of Minster, out of the cow, Rooker's Jongste Tenson, and sired by Hector De Kol; to E. L. Halpenny, Trowbridge, the two-months-old bull calf, Queen's Hector De Kol, whose dam is Queen of Minster, that gave 84 lbs. of milk a day, sire Hector De Kol; to Geo. Nicolson, Wallbridge, the five-months-old bull calf, Laura's De Kol of Minster, out of Laura of Minster, and sired by Hector De Kol; to J. M. Chng, Mapleton, as follows: The seven-months-old bull calf, Snowflake Pietertje, whose dam is Snowflake Queen De Kol of Minster, and sired by a son of the well-known cow Emery Queen; the cow, Jongste Aaggie Tirania Daisy of Minster, a good cow, out of Laura of Minster, and the three-year-old heifer, Bessie of Brickley, whose sire is Lady Tenson's Sir Rooker. To John Kennedy, Ohio, as follows: The four-year-old cow, Netherland Queen 2nd, whose dam is Queen of Minster, and sired by Netherland Tirania Baron, and the two-year-old heifer Phyllis De Kol of Minster, whose dam is Jongste Aaggie Tirania Daisy of Minster, and is sired by Hector De Kol. To a company of farmers at Castleton a nine-months-old bull calf, Minster Maid 2nd's De Kol, out of the cow, Minster Maid 2nd, and sired by Hector De Kol. To Wilbert Irwin, Cameron, as follows: The two-weeks-old bull calf, Sunnyside Pietertje of Minster, out of the cow, Pietertje Maid, and sired by Sir Mechthilde De Kol, who has seven sisters in the Advanced Registry; the ten-months-old heifer calf, Bessie De Kol of Minster, whose sire is Hector De Kol, and the five-months-old heifer calf, Lily De Kol of Minster, whose dam is Minster Lily, and is sired by Hector De Kol. In Yorkshires, Mr. Honey reports many sales also, and that the young heifers and sows that he is offering are extra choice.

Easter Rates

By Canadian Pacific Railway.

Excursion rates between all points on line of the Canadian Pacific Railway east of Port Arthur, and from Can. Pac. stations to nearly all points on connecting lines in Canada, will be on sale April 12th to 16th, inclusive, at rate of one-way first-class fare for the round trip, tickets good to return up to and including April 17th, which gives an exceptionally long limit to enjoy the Easter festivities. See any agent of the Can. Pac. Ry. for information, tickets, etc.

Cobalt.

The Rich Silver District Recently Discovered in New Ontario.

The eyes of the world are now turned towards Ontario, where the newest silver discoveries are creating the maddest excitement in the whole history of North America.

Cobalt is the center of a greater mining boom than was Dawson City in its palmy days. Instead of the hard trails and strenuous efforts that were necessary to reach the Klondyke, the way to Cobalt is easy, and can be reached direct in a Pullman-sleeping car. The Grand Trunk Railway System will carry you there with all the comforts of modern travel.

A postal card to the following address will bring you a comprehensive and complete illustrated description of the new Eldorado, with maps and all information. J. D. McDonald, District Passenger Agent, Union Station, Toronto, Ont.



How to Raise Young Chicks

The difficulties encountered in raising young chicks are numerous. Disease and lice are said to destroy nearly 50% of the annual poultry crop. Errors in diet and unsanitary conditions also help to decrease the poultry profit. But you do not need to suffer these losses if you will give poultry half the care you give other stock. Besides

DR. HESS POULTRY PAN-A-CE-A

is guaranteed to prevent and cure gapes, cholera, roup, indigestion, etc., allaying fermentation and destroying the germs of disease. By its special tonic properties it increases the powers of digestion and assimilation and compels the system to appropriate the maximum amount of food to egg production, also making the young grow fast, healthy and strong. Besides increasing growth and egg production Dr. Hess Poultry Pan-a-ce-a has special curative properties peculiar to itself. Take no so-called poultry food as a substitute. Remember that Dr. Hess Poultry Pan-a-ce-a is the prescription of Dr. Hess (M. D., D. V. S.) and bears the endorsement of leading poultry associations in the United States and Canada, and is sold on a written guarantee. It costs but a penny a day for about 30 days. Feed Poultry Pan-a-ce-a as directed, sprinkle Instant Louse Killer on the roosts, nests and into the dust bath, and we guarantee you will have no loss from disease.

1 1-2 lb. package, 35 cents; 5-lb., 85 cents; 12-lb., \$1.75; 25-lb. pail, \$3.50.

Send 2 cents for Dr. Hess 48-page Poultry Book, free.

DR. HESS & CLARK, Ashland, Ohio, U. S. A.

INSTANT LOUSE KILLER KILLS LICE.

"PEERLESS"

INCUBATORS AND BROODERS



"THE POULTRY-RAISER'S FAVORITE"

Built on Honor.

Fully Guaranteed.

A Canadian Triumph in Artificial Incubation.

Our Improved Chick Drawers not only add 25 per cent. to the air capacity of the egg chamber, but permit the chicks to be removed without interfering with the hatching eggs.

Our Tubular Copper Tank is the best, most practical and most economical system of heating ever devised for incubator or brooder use.

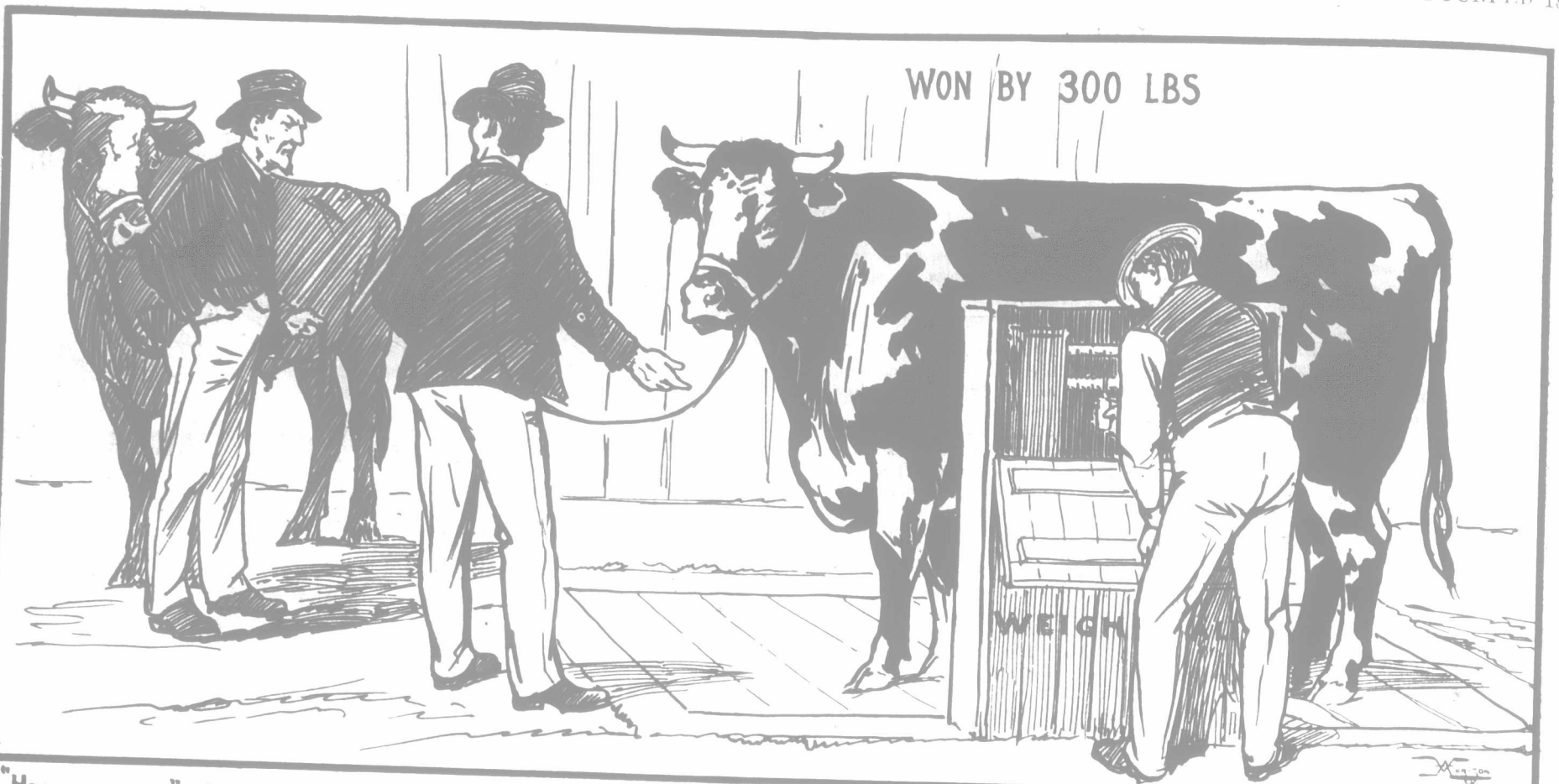
Our Regulator, once adjusted, will permanently control the heat with a degree of accuracy heretofore considered impossible.

Catalogue and prices on application.

The Lee-Hodgins Company Limited PEMBROKE, ONT.

When Writing Advertisers Please Mention Advocate





"HONEST ADVICE" IF YOU WANT A WEIGHTY, HEALTHY STEER, ALWAYS FEED "BIBBY MEAL" LOOK AT THAT FOR AN EXAMPLE.

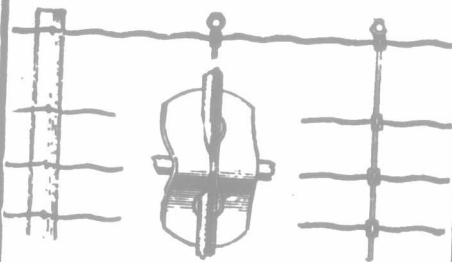
**BIBBY MEAL** Increases Weight and Fattens Quicker than Any Other Meal.  
 For Horses, Cattle, Young Stock, Sheep and Pigs. Sold at a moderate price in 100 and 200 lb. Bags.  
**ASK YOUR DEALER.**

Bibby Meal for Fattening Live Stock. Cream Equivalent for Young Calves. Dairy Meal for Milk Cows.

Wm. RENNIE CO., Limited, WINNIPEG AND VANCOUVER. TORONTO.

**Samson-Lock FENCE**

appeals to all who want a fence that is extra strong, permanent, handsome and economical.



In the **SAMSON** system all laterals are No. 9 spiral coiled wire of the highest grade. The stays are No. 7 steel—hard, springy and heavily galvanized. The **Samson Lock** speaks for itself; it holds all the line wires rigidly in place. It holds more securely, and is many times stronger than any other fence lock yet produced.

Write for a sample and see for yourself.

The Samson Lock does not kink the lateral wire.

**Locked Wire Fence Co., Limited, LONDON, ONT.**

**SHIRE STALLION**



We are still offering one pure-bred Shire stallion—prizewinner at Toronto. Being bred from imp. stock, combined with beautiful conformation, makes him a desirable horse for any breeder. Inspection invited. Visitors met at trains on sending card. Terms to suit purchaser.

For particulars write: **HE WABASH STOCK FARM, GALBRAITH BROS. PROPS., ORANGEVILLE, ONT.**

**GOSSIP.**

**EUREKA IMPLEMENTS.**

Time is money. Labor is the principal factor in the production of many farm and nearly all garden crops. To economize time, up-to-date implements are demanded. A great variety of labor-saving devices are manufactured by the Eureka Planter Co., Ltd., Woodstock, Ont. These include potato planters, corn planters, garden drills and cultivators, seed sowers, sprayers, hoes, etc. It will pay to look over their catalogues. Drop a line for it at once, mentioning "The Farmer's Advocate."

Messrs. Alex. Hume & Co., Menie, Ont.: Our Ayrshire herd is doing well, though greatly reduced in numbers by sales since going into the stables last fall. Thanks to our advt. in "The Farmer's Advocate," which brings us inquiries from all over Canada and several States, we are in some cases unable to supply the demand. We are just replying to an inquiry from Connecticut for several young cows to freshen this spring, which we regret we cannot fill, and so it goes. We have several choice two-year-old heifers in calf, due July to October, and an Aug. 1904, bull, sired by Prince of Barcheskie (imp.), of choice dairy strain; also a very stylish March, 1905, bull, sired by Lessnessock Royal Star (imp.). We have also a few good young Yorkshire pigs to offer. Some recent sales are: To Mr. J. B. Ketchen, for Mr. Percival Roberts, Jr., Narberth, Pa., 13 choice cows and one calf—three from herd of C. Rannie, two from Wm. Stewart & Son, one from J. Clark, and seven cows and one calf from our own herd. These were a useful lot, and ought to do credit to the breed. Mr. Ketchen showed good judgment in his selection, being a careful, shrewd buyer, and is a satisfactory man to deal with, willing to give value for a good thing, but it must be right. Bull calf to L. S. Gurnsey, N. Y.; an eleven-months-old bull to Amos Pickard, St. Mary's, Ont.; yearling bull to J. Connors, Campbellford; a five-year-old and a three-year-old cow to W. J. Watson, Menie; bull calf to W. Innes, Campbellford. Yorkshires to R. Clough, Campbellford; J. Cook, Marmora; F. Terry, Maple View; I. Heath, Harold; Arthur Richardson, Hoard's.

**How He Beat the Street Cars.**

A Torontonion Keeps a Record of Fares he Never Paid.

A small account book was picked up in the street recently, showing a systematic record of the number of times its owner got ahead of the street railway company. The blank pages of this book are ruled off in ledger form, and each account headed with the name of a street-car route in Toronto. For instance, there was "Church Street," with a debit on the left-hand side and a credit on the right. "Bloor and McCaul" the same—and so on over the entire system. Evidently when the owner of this book paid a fare he charged it up against the car line he patronized, and whenever he saved a fare he credited himself with five cents. At first glance it might appear that the owner of this account book was in the habit of dodging the conductor's box, but this was not the case. The fact is the fares were saved by riding a bicycle instead of paying the street-car company for coming and goings, and the fares were contributed on rainy days when the wheeling was unpleasant. On August 6th, 1905, he made an entry against "Bloor and McCaul," as follows: "One fare—last of quarter's worth of tickets bought June 2nd." The total of fares unpaid amounted to nearly thirty dollars in seven months.

Mr. J. C. Ross, Jarvis, Ont., writes: I am offering for immediate sale about eight first-class Clydesdale mares and fillies of the best breeding that can be got. They are sired by such noted horses as The Bishop (1542), Lord Fife (6962), Sir Walter (795), and several of the younger ones, by such noted horses as Sir Richard (2003) and Alexander Heir (10151), he by Prince Alexander, by old Prince of Wales. Several of these mares have been prizewinners at our leading fairs in Canada, and will make good, useful breeding mares, as great care has been taken to breed for quality, combined with good action. We have also a good young stallion, two years old this spring, sired by Alexander's Heir—a very flashy colt, with grand feet and legs, and well put up. He is the making of something good. Parties wanting something in this line will be welcome to come and see what we are offering. We also have a few good young Shorthorn cows and two bulls 10 and 14 months old for sale at very moderate prices.

**CREDIT SALE**

of 7 Registered **SHORTHORN CATTLE**

and 40 Registered **SHROPSHIRE SHEEP**, nearly all breeding ewes bred to prizewinning ram, on

**MONDAY, APRIL 16th,**

at Lot 58, Con. 2 (Flas old survey), 5 miles east of Pheipston Station, on the G. T. R., Simcoe Co. Intending purchasers will be met on the 12.30 train from the south, if notified. Orders by mail honestly dealt with and shipped free of charge. Crates \$1 each.

Terms: 10 months' credit on approved paper; 5% discount for cash.

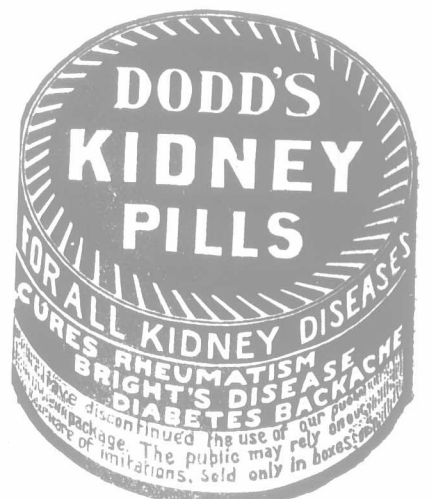
**ROWAT BROS., Hillisdale P.O.** Telephone and Telegraph.

**HOLSTEIN BULL** Inka Johanna, grandson of Sarcasie Lad, for sale for \$80. Two years old. Big bargain. Dam 17½ pounds butter in 7 days. Also three bull calves. None better bred. **J. E. K. HERRICK, Abbotsford, Que.**

**\$9,000 Poultry Catalogue** 40 kinds Turkeys, Geese, Ducks, Chickens, fowls and eggs cheap, 100 grand pictures, 20 house plans. We make hens lay, cure diseases, etc. Send 10c for mailing catalogue. **Incubators 30 Days Free Trial.** **J. R. Brabazon Jr. & Co., Box 21, Delavan, Wis.**

The national-record idea seems to be taking root in Great Britain, judged by the following resolution, passed by the Devon Cattle-Breeders' Society, and sent to the Shorthorn Society:

"That it is desirable that the various cattle-breed societies of the country be organized and affiliated in a central authority." "That each breed society be asked to send delegates, not exceeding three in number, to a meeting."





QUESTIONS AND ANSWERS. Miscellaneous.

MEASURING RAFTERS.

I have a driving house, 24 feet wide. How should I cut the rafters to give it 2-3 pitch? Give instructions how to measure rafters. G. S.

Ans.—A roof with a 2-3 pitch is a very steep roof; but on your building, rafters 20 feet long would exactly give it. The ridge would be sixteen feet higher than the plates. For 1-3 pitch, on the same building, ridge eight feet higher than plates, rafters fourteen feet five inches long would be needed. To find length of rafters on any building, add together the squares of half the width of the building and of the elevation of ridge above wall plates, and take the square root. The answer will be the exact length of rafter needed. Another method, more commonly used, is to make a draft of cross section of roof, one inch to the foot, and measure the line drawn to represent rafter. T. B.

STALLION SLOW TO SERVE.

Could you or some of your readers give advice on the following case? Imported stallion, coming five years, was bred to 14 mares last season, but on three occasions refused to serve, mares being thoroughly in season at the time. He would only act vicious to them, but at other times was very keen. I may state here that 10 of those he was bred to are in foal. To all appearance, he was in perfect health. What would you recommend in such a case? I would like a few pointers from some old stallioner regarding the care and management of stallions through your valuable paper. J. R.

Ans.—We have had several questions of this nature recently, and will be pleased to hear from anyone who can suggest a solution of the problem as the result of experience or observation.

PIG PEN 18 x 30 FEET.

Would you kindly publish a plan for a pigpen, 18 x 30 feet, giving as much room as possible for pens? Give proportion and how much cement and gravel it will take: wall, seven feet high; floors to be cement; iron troughs, and wire-edge ready roofing. C. W.

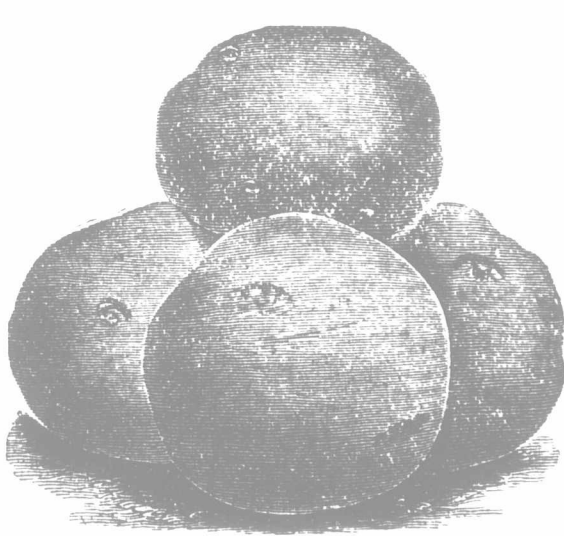
Ans.—Probably the best division of the space would be to have a passage, four feet wide, across the narrow way of the building, leaving room for two pens on each side, each 9 x 13 feet. Each pen would furnish ample room for seven hogs. One of the pens could be made shorter, in order to give room for feed box. The walls, if built eight inches thick, one to nine, would require about fourteen barrels of cement, and three and a half cords of gravel. The floor, if made one of cement to six of gravel, four inches thick, would need eight or nine barrels of cement and one and a half cords of gravel. Total: twenty-three barrels of cement, and five cords of gravel. T. B.

SALE OF BULL.

A had a sale last fall, and advertised one pure-bred bull with pedigree; made no other statement as to his prospect. B came to sale, and bought bull, got pedigree, and gave note. About three months after, he told around that bull was misrepresented, that bull was not pure, and that he would not pay note in full. A can prove that bull got 44 calves out of 50 cows, and, also, day previous to sale he bred two cows, and on morning of sale one, and they were in calf. B sold bull to butcher for same as he paid for him. Butcher sold him to a drover to go to the Northwest for breeding purposes, and the butcher made \$15 on him. B never notified A about bull. Has B got any chance to come at A for damages? A can prove what he has said. A SUBSCRIBER.

Ans.—According to the above statement of the case, B has no claim against A.

Mr. R. H. Reid, Pine River, Ont., writes: "I have just sold to A. Thompson & Sons, Pine River, the young bull, Aberdeen Merchant, sired by Merchantman (imp.), a Missie bull, dam Lady Aberdeen, by Golden Nugget. We have just one bull left, a beautiful dark roan, got by Nonpareil Archer (imp.), out of a Dutchess cow. This young bull is a model in conformation, and is priced very reasonably."



NEW NOROTON BEAUTY.

BRUCE'S RELIABLE SEED POTATOES

**New Noroton Beauty**—It is a lineal descendant of the famous Peach-Blow, being a seedling from a seedling of that variety. We may summarize its merits as follows: It is the earliest potato ever grown. It is by far the most productive extra early, yielding as heavily as any of the medium early sorts. It is handsomer in appearance and more uniform in size and shape than any other variety. Its table quality is superb, and it keeps longer than any other sort, early or late. It is the best all-round potato in existence. Price, 1 lb., 25c.; 5 lbs., \$1.00, postpaid. By freight, 1/2 peck, 90c.; peck, \$1.50.

**Pride of Aroostook**—This grand new potato comes from Aroostook county, Maine, which is famous for its potatoes. It is a second early, pure white variety, oblong in shape, and exceedingly fine appearance and splendid quality. It has great vitality and is wonderfully productive, easily beating any variety of equal earliness. 1 lb., 20c.; 5 lbs., 75c.; postpaid. By freight, peck, 60c.; 1/2 bush., \$1.00; bush., \$1.70.

**Early Six Weeks**—Popular first early, of fine quality.  
**Burpee's Extra Early**—Of good size, oblong shape, skin smooth, flesh pure white, and best quality.

**The Bovee**—An extra early, wonderfully productive variety, of excellent quality.

**Extra Early Ohio**—A fine early potato, of vigorous growth and superior quality. Our stock is very fine.  
**Sir Walter Raleigh**—Main crop, very productive, white flesh and skin, of uniform large size, smooth, with few shallow eyes and of splendid quality.

**Bruce's White Beauty**—This excellent potato still retains the position it has occupied since we introduced it 14 years ago, on account of its attractive appearance and the excellence of its table qualities. It resembles the Beauty of Hebron, but is earlier and more productive. The skin and flesh are pure white, the tubers are uniform in size, and it is a good keeper.

Prices of above varieties, excepting the Beauty of Noroton and Pride of Aroostook: 1 lb., 15c.; 5 lbs., 50c., postpaid to Canadian points. To Newfoundland and United States add 10c. lb. (by freight): Peck, 35c.; half bushel, 60c.; bushel, \$1.10; bag, \$1.50. (Jute bags 10c. each extra.)  
**FREE**—Our new Catalogue, 96 pages of Seeds, Implements, Plants, Poultry Supplies, and Sprayers, will be mailed free to all applicants.

**JOHN A. BRUCE & CO., The Pioneer Seed House of Canada. Established 1850. HAMILTON, ONT.**



Our Model Incubators and Brooders

are the only PANACEA for failure—past, present and future. Just take a few minutes and read the following one of many hundreds of unsolicited testimonials from our customers:

Dear Sir,—

Masonville P. O., Ont., March 5, 1905.

After trying an incubator for two years, and spoiling eight hatches of eggs, I threw the incubator away in disgust, never meaning to try again, knowing that it was not the fault of the eggs, as I raised over 400 under hens. Last December I read Chas. A. Cyphers' book, "Incubation and Its Natural Laws," after which I ordered a Model, which I had to work under trying conditions. First, I only had eggs from pullets mated with cockerels, mated up only five days before I set incubator. Second, the location in a room that varied from 65 to 28; for two days and nights the temperature was at 30 to 32, and your Model only lost one-half degree—from 103 to 102. The results are just grand. Out of 71 eggs I got 65 of the strongest chicks I ever saw. All came out on the 20th of February, 1906, within five hours of each other. Two of the eggs I broke. The other four must have died about the 16th day (weak germ). They are now all safe in a Model Colony Brooder, and all 65 as healthy and well as though it were summer. Temperature inside brooder steady night and day at 90. Outside blowing and snowing as hard as it can. R. H. CRUMP.

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LABOR-SAVING DEVICES

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WANTED

Every farmer and breeder that lost a colt last year to try one of my **BROOD MARE SPECIALS**

It will guarantee a good strong, healthy, vigorous colt, and prevents big knees and running navel. **Price, \$1.50.** Special prices on three or more. Impotent and indifferent sires treated successfully. Terms on application to

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**Red Shorthorn Bull,** 12 months, imported dam. Bargain rates during April.  
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<b>Clover</b>	Sun Brand Red or Ocean " Mammoth " Alsyke	\$10.00 Per bush
AND	Diamond Brand.....	2.75 "
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		AND Grade No. 1 Government Standard.

Send FOR SAMPLES and see for yourselves.  
FOR CATALOGUE and see what we have to offer in  
Oat, Root, Vegetable and Flower Seeds.

ESTABLISHED 1866.

**George Keith, Seed Merchant, TORONTO, ONT.**



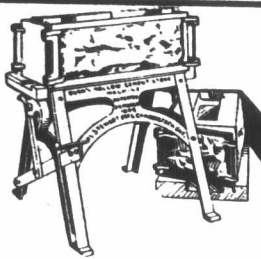
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and lots of it, **HORSES** require to be kept in good form. Every one knows the risk of rushing horses that have been partially or wholly idle during the winter, into hard spring work. All risks can be avoided by the use of just a little **CARNEFAC** in their feed. **HORSES FED CARNEFAC LOOK WELL, WORK WELL, and ARE WELL.**

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Gentlemen,—I take pleasure in acknowledging receiving trial of Carnefac, which was used at our farm in rearing calves, and also fed to horses when conditioning for spring, with good results. Accept my thanks for same. Yours truly,  
(Signed) D. A. BONESTELL, V. S., Frankford, Ont.

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are in use from coast to coast, and every one giving the best of satisfaction. Concrete blocks make the handsomest, most durable and cheapest building material. They are simply and quickly made on the **Dunn Machine**; and the cost of outfit is very moderate. Full directions furnished.

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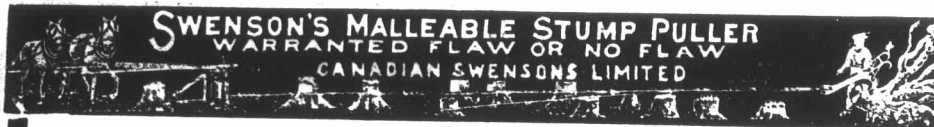
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with 20th Century Clipper **PRICE \$7.50**

They feel better, look better, work better and are less liable to catch cold. Don't let your horses stand in the barn all night with a heavy damp coat of hair on. It weakens them and they lose feed. If clipped they dry out quickly, gain feed and can be groomed in one fourth the time. Weighs only 15 lbs. Clips a horse in 30 minutes. Send for Catalogue to  
**CHICAGO FLEXIBLE SHAFT CO., CHICAGO, ILL.**  
110 La Salle Ave.

## Sheep-shearing Machines.

With the approach of the wool season, the question of sheep-shearing machines becomes an important one to the sheep owner. There are good sheep-shearing machines manufactured, and only a reasonable amount of intelligence is necessary to select one which will actually do the work. While there are many of the old hand-power machines laid aside, new ones are being manufactured which will do the work satisfactorily, and with very little cost for repairs. The time will soon be at hand when all shearing will be done by machines, and recent improvements have brought this time much nearer to realization than is generally known.

At the big sheep centers, hand shears are a thing of the past, being replaced by the shearing machine. Small breeders and feeders, however, seem to be prejudiced against the machine, and pin their faith to the old method. They frankly state that they can do more and better work with the old shears than with the new appliance. This is contrary to the experience of those who know how to use the shearing machine. The following pointers on the subject of handling the machine are given by Mr. Marquis, the champion sheep shearer, in a recent issue of the *Dakota Farmer*:

Place the sheep in a position so that you stand about a foot to the left of the long tube and about a foot in front of it. Keep long tube always hanging down at your right side, a little behind you. Always turn sheep to the right. Do this gradually, and learn to do it with your feet.

Try to hold sheep so as to keep the skin stretched tight on the part you are working.

Assuming that all is in readiness for work, catch sheep by right hind leg with your left hand, toss it easily on its side, place it in an upright position, hold sheep tightly between your knees, part wool at forward end of the brisket, and run clipper down as far as pit of stomach. This should be done with two swathes. Then put front legs behind your arm at the shoulder, and run about four swathes down right side between front leg and flank; then shear across belly over to left side on a line between shoulder and flank; begin at the top and shear down, making the swath clean across the belly at one stroke; keep heel of clipper elevated a little and points down to the skin.

You will see that I have not moved the sheep, and have my feet in exactly the same position as at first, and I have dropped the front legs. When you have finished the belly, trim out the crotch, and cut wool off the point of tail. Then place your left hand just above the stifle, and press down so as to straighten out the leg, stretching skin tight, then with inward strokes trim inside of leg. Then place left hand above stifle, stretching skin and straightening out leg; with outward strokes trim inside of left hind leg, then with two inward strokes trim tags off out side of left leg.

Shearer must place his right leg between sheep's legs, leaning it well back on its rump, back against your left foot. Place your left hand on sheep's under jaw, straighten out neck with back of neck against your knee; then run two swathes the full length of right side of neck; then turn side of jaw against your knee; trim left side of neck, running lengthwise back to center of neck and top of head. This is one of the hardest parts of sheep to shear for beginners, but to an expert it is easy enough.

We have turned sheep quarter way around, and are in a position to shear left shoulder. Now run to center of back each stroke. Keep your left hand on the skin above the shear, keeping it tight. Do not take hold of front leg with your left hand; keep your hand on skin well up to the body, pulling up skin, trimming as you pull.

We have now trimmed the left shoulder and are down on the side. Shearer should hold machine lightly in his hand, lean sheep well back, and press his knee firmly against sheep's brisket. This enables him to keep skin tight. The strokes should be long, smooth and quick.

As we go down the side, we gradually move back from the sheep, and here, when we are finishing the first side, we have the sheep flat on its side. The main point is to keep the skin tight.

When you have trimmed left hind leg and tail, run three or four swathes half way up the back, straighten sheep up, lean it back, stand astride, holding it tightly between your knees. Try to get its back in rainbow shape if possible. Take about three swathes up the back. Now you should have trimmed top of head. When you have sheared left side of neck, after running up back, set sheep up straight, holding its left side tightly against your knees, and trim right jaw. Press sheep's neck down against its left side. Begin at underside of right side of neck, run swathes down to shoulder, working back on top of the neck.

Then let sheep's neck drop against left side, set your left leg clear over outside of sheep's legs, keeping its right front knee tight down under your leg. With inward strokes shear shoulder and front leg, then lift up sheep's head, put your left leg between sheep's legs, hold sheep up against you, and shear last side and down last hind leg. Put your left hand on flank to tighten skin, step back from sheep gradually as you shear last hind leg. Never take hold of a leg to pull it out to shear it, but pull skin tight with your left hand close up to the body. This straightens out leg, and enables one to shear it quickly.

When through, step aside, and sheep is in a position to get up and run into the pen. Always hold sheep in an easy position, and it will struggle but little.—  
[Shepherd's Bulletin.]

## GOSSIP.

The annual show and sale of Romney Marsh sheep is advertised in this paper to take place at Ashford, Kent, England, on Sept. 28th. See the advertisement, and write the Secretary for a catalogue.

John Watt & Son, Salem, Ont., report the following recent sales of Shorthorns: To Geo. Oliver, Galt, the bull calf, Prince Ury; to Mr. Joseph Fisher, Hillburn, Saskatchewan, the four-year-old cow, Countess 8th, by Royal Ury. She is a show cow if fitted. To the same buyer, the nine-months-old twin calf, Happy Knight, by Imp. Good Morning, and out of Idylwild 2nd, by Quantin Robin (imp.). We are sold out of bull calves now, as the demand for good bulls has been active. Thanks to 'The Farmer's Advocate.'

## MORRISTON YORKSHIRES AND TAMWORTHS.

The Morriston herd of Yorkshires and Tamworths are the property of Mr. Charles Currie, whose farm lies in Wellington Co., Ont., 14 miles from Shaw Station on the C. P. R., and 9 miles from Guelph. This is one of the largest as well as one of the best herds of pure-bred bacon hogs in Ontario, numbering 150 head of imported and Canadian-bred Yorkshires and Tamworths, many of them being prizewinners at leading county shows, including Galt and Guelph. They are ideal in type, and bred on approved lines, and the splendid trade that Mr. Currie enjoys, shows that his shippers gave satisfaction, and the fact that a registered hog or sow can be bought for so small a margin of cost over a grade is leading every up-to-date farmer to keep pure-breeds only as breeding stock. The main Yorkshire stock boar is Morriston General, a hog of superior finish, with a grand back, smooth shoulders, full hams and good bone. He is sired by Royal Coupe or, dam Imp. Royal Queen. Space forbids mention of the many brood sows, but Summer Hill Sunbeam 2nd (imp. in dam), and her full sister are certainly a royal pair, also Morriston Malel (imp. in dam). All these are prizewinners, and for type are unexcelled. For sale, out of these sows, and by the main stock boar, are a number of both sexes, from three to five months old—a rare nice lot. In Tamworths, the main stock boar is Newcastle Choice, a son of the champion, Colwill's Choice, and out of the championship winner, Newcastle Queen. This boar has won the championship at Guelph fall show two years in succession, over all breeds as a model bacon type. The sows are equally as good. In fact, Mr. Currie's Yorkshires and Tamworths are second to none, and customers can depend on getting something choice from this herd. There are on hand a number of both breeds, of all ages for sale. Write Mr. Currie, to Morriston, P. O.

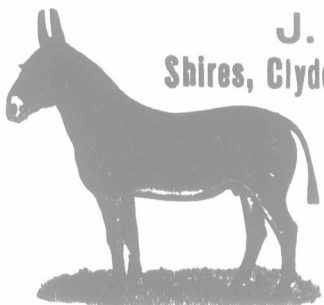




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Scottish and Canadian winners at the leading shows of both countries. The Clydes represent the blood of such noted sires as Baron's Pride, Up-to-Time, Royal Favorite, Ethiopia and Acme. They combine size, quality and action. The French Coachers are a big, flashy, high-stepping lot, and are winners in both France and Canada. Our prices are right, and our horses as good as the best.

**ROBT. NESS & SON, Howick, Quebec.**  
Long-distance Telephone.



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My latest importation includes 45 head of Shire stallions and fillies, Clyde stallions and fillies, Hackney and Percheron stallions and Spanish Jacks, many of them prizewinners in England, Scotland and France. This is a gilt-edged lot and the best we ever imported, combining size and quality.

Stables at WESTON, ONT. Telephone connection.  
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IMPORTERS OF  
**HACKNEYS and CLYDESDALES**

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

### IMPORTED CLYDESDALES AND HACKNEYS

Our first importation of Clydesdales and Hackneys, selected by one of the best in Canada, arrived at our stables in Brampton, Ont., 20 miles west of Toronto, on March 26th, and are pronounced by all who have seen them the best selection for size, quality and breeding that have crossed the ocean. The Clydesdales are by such sires as Baron's Pride, Prince of Blacon, Marcellus, Prince Thomas, Macgregor, Sir Hugo, Baron o' Buchlyvie, Prince Alexander and Moncrieffe Marquis. They are draft horses, not halfers. Some of the fillies were winners in Scotland, and will make ton mares. Come and see them. Five minutes' walk from station.—G. T. R. and C. P. R.

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### HACKNEYS and CLYDESDALES



From such noted champions as Baron's Pride, Hiawatha, Marcellus, Macgregor, Baron's Fashion and Lord Lothian, etc. Inspection invited.

For fuller description and prices, write

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### NEW IMPORTATION

I have landed one of the best importations of

**CLYDESDALES, SHIRES and HACKNEY STALLIONS,**

males and fillies ever landed in America. They are got by such sires as Baron's Pride, Everlasting, Up-to-Time, Marcellus, Pride of Blacon and others, Scotland's greatest sires. Mares and fillies all bred in Scotland to the best sires obtainable. Have size and quality, and I am offering these at just one half less than other importers are asking for theirs. For full particulars write

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### CLAYFIELD STOCK FARM

Now offers at reduced prices, for next 60 days,

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18 head) mares and fillies; also one stallion, coming 2 years old. These are a first-class lot, some of which are winners at some of the best fairs in America. Also young Shorthorn cows and heifers, and two bulls, age 9 to 14 months.

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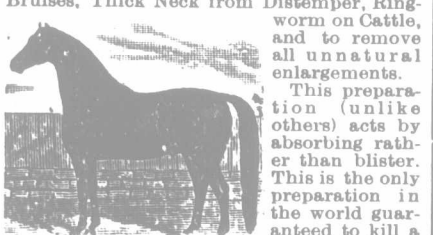
### 23 Imported Clydesdale Stallions

for sale; also 6 Hackney Stallions. Inspection invited and prices right.

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### 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: om

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Further information gladly furnished by nearest M.C.R. Agent, or

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### BREEDER OF

### Clydesdales and Shorthorns

Has now to offer some good young bulls, sired by Imp. Bapton Chancellor. Speak quick if in need of such, as they will soon go at the price asked.

My motto: "The Best is None too Good." Imported and home-bred Clydesdale and Shire Horses, Scotch Shorthorn Cattle, Leicester Sheep.

A choice lot of reg. fillies and Shorthorn calves to choose from. Our stock exhibited have won the highest honors at the largest shows in America.

**WESTON P.O., C.P.R. and G.T.R. 10 miles west Toronto. Telephone at house and farm.**

**J. M. GARDHOUSE.**

**For Sale:** A grand registered CLYDE STALLION, 6 years old. Bay. Small strip. Two white feet. Sound and sure foal-getter. Come and see his stock. Apply to **Ryan Bros. & Switzer, Riceville, On.**

### CLYDESDALES

Imported Clyde stallions for sale. The choicest breeding and good individuals. Prices low for good horses.

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No more blind horses—For Specific Ophthalmia, Moon Blindness and other sore eyes. **BARRY CO., Iowa City, Iowa,** have sure cure.

### QUESTIONS AND ANSWERS. Veterinary.

#### TUBERCULOSIS.

Cow coughs frequently; has difficulty in breathing; wheezes at each breath, and is rapidly falling in flesh. She does not eat well. Is her milk fit for use?

G. D.

Ans.—She has tuberculosis, and treatment will do no good. The milk of a tubercular cow is not considered safe to use, and, while in many cases it may not contain the bacillus of the disease, few care to take the risk. I would advise you to destroy her, as when the disease causes such constitutional symptoms as you describe, there is eminent danger of other cattle contracting the disease from her.

#### BRONCHOCELE.

Horse has a small lump on each side of his windpipe, close to the throat. He is inclined to snuffle when he has a cold.

SUBSCRIBER.

Ans.—These lumps are enlarged thyroid glands (the condition is called bronchocele), and do not interfere with a horse's usefulness, unless the glands become very large. They can be reduced to the normal size by the daily application, with smart friction, of an ointment composed of 2 drams each iodine crystals and iodide of potash, mixed with 2 ounces vaseline. The sniffling is caused by irritation to the mucous membrane of the nostrils when he has a cold. With some nervous horses, it is a habit, and cannot be corrected.

V.

#### RINGBONE.

1. Yearling colt, ringhoned on pasterns of both hind legs, have been blistering for two months with powdered cantharides, mercurial ointment, tincture of iodine, corrosive sublimate, mixed with lard. Ringbones are larger than when I first commenced blistering; colt is also very stiff and can hardly rise. Is blister all right? I started blistering as soon as I noticed the ringbone.

2. Was exercising three-year-old filly on the line about a month ago, when she slipped and strained hind leg on inside, and the muscles from the pastern joint up past the hock are swelled some yet. Have been washing daily with hot water and using for a liniment vinegar, salt-petre and turpentine mixed.

3. Will "Absorbine" reduce and take off a soft puff or thickiness on horse's knee?

SUBSCRIBER.

Ans.—1. Have it fired by a competent veterinarian, then blistered. All you can expect is to stop lameness. Enlargements will always remain.

2. Apply a liniment as follows: Potassium iodide, 4 drams; biniodide mercury, 4 drams; water, 1 pint. Apply once daily; exercise regularly.

3. Cannot answer from experience. It is claimed it will do so.

R.

#### Miscellaneous.

#### VARIETIES OF FOWLS—WHOLE OR CRUSHED OATS FOR CALF.

1. What is the best all-round breed of hens for a farmer? Plymouth Rocks, Wyandottes (White or Golden), or Buff Orpingtons?

2. Which is better for a young calf, about three weeks old, whole or crushed oats?

W. S. M.

Ans.—1. White Wyandottes, Buff Orpingtons, and the various kinds of Plymouth Rocks, all have their devotees, and it is doubtful if one breed is better than another. The Golden Wyandottes have scarcely so wide a call as the white.

2. Opinions differ; our own preference is for crushed oats.

#### PROBABLY TUBERCULOSIS.

Have a cow that had a lump on her jaw two years ago, and we got it cured all right. Now she has taken to breathing very heavy for two months past. She has given birth to a fine big calf, and does not seem quite so bad since. At times, she appears to be nearly all right. Her breathing is normal, with a loud piping at every breath. Occasionally she draws up and coughs. She feels all right. Is her milk fit for use?

G. I. R.

Ans.—Would be inclined to think that another tumor is forming about the throat. Would advise having her tested for tuberculosis. Would, probably, be well not to use milk until she is tested.

R.

### Horse Owners! Use



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Special Sales of Thoroughbred Stock conducted

Consignments solicited. Correspondence will receive prompt attention.

This is the best market in Canada for either buyer or seller. Nearly two hundred horses sold each week.

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No fancy prices, and all delivered free Liverpool landing stage. Correspondence invited.

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**ABSORBINE, JR.,** for manking, \$1.00 Bottle. Cures Strains, Gout, Varicose Veins, Etc. Mfd. only by

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Imp. Stallions and Fillies. The get of such notables as Baron's Pride, Prince Alexander, Moncrieffe Marquis, The Dean, Montrave Mac and Battle Axe; they combine size and quality, their breeding is unsurpassed, and I will sell them cheap.

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Rising four. First at London, 1904 and 1905.

Sire Langton's Danegelt.

### IMP. SHIRE STALLION

First at London. A proved sire of quick-selling stock at highest prices.

These will be sold well worth the money, as the owner, Mr. E. C. Attrill, is giving up farming. For prices, apply to

**MR. CHAS. GARROW, AGENT, GODERICH, ONTARIO.**

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### CLYDESDALE STALLIONS and MARES

Lyon Macqueen (3632), rising five; sire Macqueen, imp. (462) 3518 (5200); dam Blossom, imp. (381); second and third dams registered. Royal Robbie (4274), rising three; sire Prince Roberts (2719), dam Jess of Eldridge (3942); four registered dams. Also two mares, large size, young, both in foal: Jess of Eldridge (3942) and Jess Erskine (5750).

**JOS. M. MILLARD, Aitona, Ont.**

Visitors met at Stouffville Sta., G.T.R.

### For Sale: Clydesdale Stallion, Rob

The pure-bred Clydesdale Stallion, Rob (2392), 9 years old, color black, face, right fore foot and both hind feet white; good style and action, and an A1 stock horse.

**A. S. MORRISON, V.S., Chesterville, Ont.**



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AMERICA'S GREATEST IMPORTING FIRM

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### Shire, Percheron & Hackney Stallions

Ever seen in Canada, and which, for the next thirty days, will be sold at very reasonable prices. Insurance against death from any cause, if you so desire.

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Don't buy a stallion until you see what we can do for you. Address:

H. W. TRUMAN, City Hotel, London, Ont.



### 25 Percherons, also French Coachers, Hackney and Clyde Stallions

Have just arrived, Aug. 16, 1905, from Great Britain and France with our new importation of high-class stallions, many of them prizewinners in their native lands, bred by the best breeders. The Percherons are large blocky fellows, 3 to 5 years old, descendants of such noted champions as Brilliant, Besique and Romulus. Blacks and dark dapple greys, weighing from 1,600 to 2,100 lbs., with the right kind of legs and feet, and can go like trotters. We personally selected every horse ourselves, using extraordinary caution to select nothing but good sound serviceable horses that will do our customers and the country good. The French Coachers, Hackneys and Clydes are also of the best breeding, some of them prizewinners in England, Ireland and Paris. We will sell you a better breeding for less money than any other importers in America, with a guarantee as good as gold. Intending purchasers should visit our stables before buying elsewhere. Inspect our stock and get our prices. Terms made to suit purchasers. Hamilton & Hawthorne, Simcoe, Ont. 89 miles S.W. of Toronto, on G.T.R. & Wabash

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can now be seen at H. E. George's farm, Crampton, Ont. They are imported direct from Clement Keevil's Blagdon Stud, England. You are wanting a sound stallion and a sure stock-getter—I can suit you.

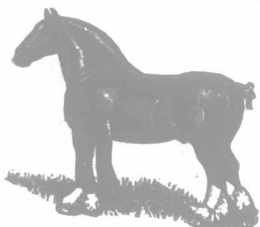
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G. & J. HAY, - Lachute, Que.  
A few miles from Ottawa.



### Graham & Renfrew's CLYDESDALES and HACKNEYS

Our Clydes now on hand are all prizewinners, their breeding is gilt-edged. Our Hackneys, both stallions and mares, are an exceedingly high-class lot. We also have a few high-steppers and carriage horses. Yonge Street cars pass the door every hour. Phone North 4483.

GRAHAM & RENFREW, BEDFORD PARK, ONT.

### QUESTIONS AND ANSWERS. Miscellaneous.

#### OWNERSHIP OF TREE.

Who is the owner of a tree falling across the line fence by the wind? The stump is six feet on A, and the tree fell on B. It was slivered and hung on the stump. B cut it off the stump, and cut off the top. Who is the owner of said tree?

Ans.—A; but it was A's duty to remove the tree forthwith after it fell, and to repair the fence, and make good any damage; and on his neglect or refusal to do so for 48 hours after notice, in writing, to remove the tree, B could remove it, and repair the fence, and retain the tree to remunerate him for such removal.

#### A QUESTION IN MATING.

I wish to secure the eggs of about 20 Plymouth Rock hens and two males. Can as good results be secured by allowing the hens to run in one flock and changing the males at noon each day, as by dividing into two flocks with a male in each? Will the tread of one male render the tread of the other abortive?

Ans.—If special mating is not required better results can be obtained by running the 20 hens together and alternating the males day about. The influence of one male does not necessarily affect the influence of the other.

F. C. ELFORD,  
Chief of Poultry Division, Ottawa.

#### WATERWAY CAUSING TROUBLE.

Some years ago the council opened up a waterway on front of my farm. Can I compel them to furnish me with sewer pipes free for an approach to the highway? They have already refused to do so. What is the law concerning this matter? Could I get the sewer pipe and charge them to the council?

Ontario.  
Ans.—You do not say how many years ago it was that the waterway was opened up; but, assuming that your claim is not barred by lapse of time, we would say that you ought to make a formal demand in writing upon the municipal corporation for the relief you seek, and, in the event of non-compliance therewith, to attend to the requisite work and incur the necessary expense yourself, and then give the prescribed notice of action to the corporation, and in due course thereafter bring action for damages. We fear, however, that you have allowed the claim to become stale, and that whatever chances of success you might have had in litigation launched at the outset, you could hardly hope to succeed at this late date, and we can only recommend that you make the best arrangements you can with the council.

#### WORK AND PLAY.

I have a young Barnardo lad, 18 years of age, working for me. He is hired for one year for \$125. He began work April 1st, 1905. He had been sick three days during this time, and also has been unable to work for 144 days on account of hurting his knee while wrestling with another boy. I gave him one day to attend our local fair, and one day to go to Methodist church picnic. I have boarded him and did his washing while he was unable to work with sore knee, and now he speaks as though he would take all the holidays that he is entitled to when working by the year.

1. How many holidays is he entitled to when working by the year?  
2. How many days' sickness is he entitled to during the year?  
3. Am I obliged to give him his board and washing while unable to work with sore knee?

4. While he is unable to work with sore knee, would he be entitled to this time as sickness time, as he hurt his knee while wrestling with another boy during the evening around church, after his day's work was done on farm?

Ont. OLD SUBSCRIBER.  
Ans.—1. All the statutory holidays, but subject to the doing the con of chores.

2 and 4. There is no fixed number of days; but we may say that the lad is not legally liable to loss of wages in respect of temporary inability to work owing to sickness or accidental injury, such as you describe.

3. Judging from your statement alone, we must say that we think you are under such obligation.

#### REGISTRAR OF HORSES.

Please give the name of the Registrar of Clydesdale horses for Canada.

SUBSCRIBER.

Ans.—F. M. Wade, Department of Agriculture, Ottawa.

#### BULL TURNS OUT IMPOTENT.

A purchases from B a four-months-old pure-bred bull calf, paying cash. When the animal is old enough for service, it discovers, to his great disappointment, that the bull is impotent—totally useless.

1. Is B under any obligation to compensate A for his loss?

2. Is there any custom or rule among stockmen governing such a case?

CONSTANT READER.

Ans.—1 and 2. As there was no attempt on A's part to defraud, we do not see that B has any claim. In buying a bull of that age, one takes his chances on his proving a good or a sure stock-getter, but the spirit of the golden rule suggests the fairness of either a restitution of part of the price, or the substitution of another bull by the seller.

#### ABOUT DUCKS.

1. What is the best food to feed ducks to make them lay well?

2. What is the best food for young ducks just out of the shell, and the first two weeks after?

3. What is the best food for young ducks after they are two weeks old?

4. To what age should young ducks be kept out of the sun and rain?

5. Is it best to keep young ducks in a small grassy enclosure or in a building with a board floor, or in a building with a ground floor?  
YOUNG FARMER.

Ans.—1. The following ration is highly recommended: 50% by measure, corn meal, 15% wheat bran, 15% green food or cooked vegetables, 12% beef scrap, 8% coarse sand or grit, mixed with water to a crumbly state, and fed morning and night.

2. Soft food is their natural diet, together with vegetables, grasses and animal food. A good mash may be made as follows: 10 lbs. bran, 5 lbs. cornmeal, 6 to 8 lbs. rolled oats, mixed with a 5% addition each of beef scrap and sand, and 10% green food, mixed with water to a dry crumbly state, and fed four times a day.

3. Much the same as in 2, with a little more animal food. They may also get a very light feed of whole grain occasionally.

4. About two weeks.

5. A grassy yard, if protected from the sun and rain, for the first two weeks.

F. C. ELFORD,  
Chief of Poultry Division.

#### WEIGHT OF A CUBIC FOOT OF CONCRETE.

What will a cubic foot of cement concrete weigh, mixed 1 to 6? J. McC.

Ans.—We give you below an extract from a publication we have regarding the weights and measures of concrete materials. You will understand, of course, that no positive weights can be given for any particular kind of concrete. The aggregates vary so much in weight that it would be impossible to name accurately specific weights of definite mixtures.

Sand weighs from 80 to 100 pounds per cubic foot dry and loose, and from 90 to 115 pounds dry and well shaken.

Gravel weighs from 100 to 120 pounds per cubic foot loose, and about 20 pounds more when well rammed.

Crushed limestone weighs about 90 pounds per cubic foot, varying somewhat either way with the size and amount of fine dust.

Copper slag, which has been used successfully where weight is wanted in concrete, weighs 120 to 125 pounds per cubic foot.

Quicklime weighs 64 pounds per cubic foot.

Portland cement, loose, weighs 70 to 90 pounds per cubic foot; packed, about 110 pounds per cubic foot.

Approximate Weights of Portland Cement Concrete.

When made with cinders—60 to 80 lbs. per cubic ft.

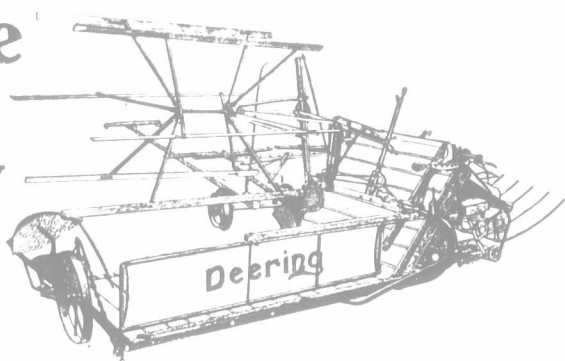
When made with broken brick—100 to 110 lbs. per cubic ft.

When made with crushed granite—160 to 170 lbs. per cubic ft.

When made with crushed limestone—125 to 135 lbs. per cubic ft.



## Guarantee Against Unsatisfactory Harvesting



WHEN you purchase a Deering binder you secure insurance against unsatisfactory harvesting. It's just as important to insure your crops against unprofitable harvesting as it is to insure your property against fire loss.

Harvesting a good crop with a poor binder will hardly be more profitable than harvesting a poor crop with a good binder.

You see how essential it is to have a good binder. You must have a machine that will harvest all your grain quickly and economically so that you will be able to realize every dollar possible out of your crop; in other words, you need a Deering.

The Deering binder is built to cut, elevate and bind all the grain, no matter in what condition the field may be.

The reel will bring tall or short, down and tangled grain to the sickle without fail; the elevators will handle it whether it be light or heavy, and the binding attachment will throw out nice even butted bundles.

When a field of grain is harvested with a Deering, you won't find crow's feed scattered all about; you won't find the grain lying in

patches where the reel never picked it up. The Deering is built to harvest the crop in the right way.

Deering binders can be purchased with either a 5, 6, 7 or 8-foot cut.

The 8-foot binder is equipped with a tongue truck, which materially reduces the neck weight and draft.

The Deering line of harvesting machines is complete and includes, besides grain and corn harvesting machines, a complete line of haying machines—mowers, tedders, various styles and sizes of rakes, hay stackers and loaders.

Call on the Deering agent and let him explain to you why a Deering machine harvests in the right way. These local agents are found everywhere, and will be pleased to give information and a catalog concerning the Deering machines.

CANADA BRANCHES: Calgary, London, Montreal, Toronto, Ottawa, Regina, St. John, Winnipeg.  
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### IDEAL Woven Wire FENCE

Best Hog Fence Made.

HERE ARE SOME OF THE REASONS:  
It is eight wires high and every one of these wires is No. 9, hard steel. It is strong enough and close enough and high enough to turn any hog that lives. You know No. 9 is pretty near the heaviest wire ever used in fencing. Most manufacturers cannot use it at all. Their machines won't weave it. Ideal fence is all made of No. 9 wire. It has no small upright wires to weaken it. If you have had experience with fence, you know what this means. Wire all heavily galvanized and cannot rust. Locked at every crossing so firmly that it cannot be rooted or pulled or twisted out of place. It will fit perfectly all level or hilly ground. The wires are spaced from 3 to 7 inches apart, fencing in the little ones as well as the big ones. You can have the same style fence a couple wires higher, making the best all-purpose fence made. While you are buying fence, why not buy for good? Why not buy a good, heavy, permanent fence like the Ideal, and end your fence troubles? We would like to tell you more about this Ideal fence. We have prepared a little book to send out. It shows a style for every purpose. If you are interested in fencing, it will pay you to get it. Write for it to-day.

**THE MCGREGOR - BANWELL FENCE CO., Limited,**  
Dept. B,  
WALKERVILLE, ONTARIO.

### Tudhope Carriages

When a man buys a Tudhope Carriage, he knows he has gotten a full money's worth. He knows he has bought the best materials—put together by Tudhopes who have been born and raised in the business. The very name Tudhope means money to every man who buys Carriages.

**TUDHOPE No. 52**

is daily adding fame to the Tudhope Carriage Makers. Corning body. Six spring gear—double reach with full length steel plates. Bell collar steel axles. Dayton fifth wheel. Quick shifters. Double bar dash rail, seat handles, and hubcaps nickel plated on brass. Write for free illustrated catalogue.

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

Large number of Improved Farms in Brandon District.

## WESTERN CANADA LAND CO.

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We are Canadians with over 26 years' experience in Western Canada, a large portion of this time spent farming, have travelled extensively through the West. We therefore claim to know the land and its producing possibilities.

Wheat and Ranch Land (unimproved) and Improved Farms in best districts of Manitoba, Saskatchewan and Alberta, and Fruit Lands in British Columbia.

**HOMESTEADS LOCATED. SELECTIONS MADE.**  
**CORRESPONDENCE SOLICITED.**

### QUESTIONS AND ANSWERS. Veterinary.

#### LYMPHANGITIS.

Eight-year-old horse was worked very hard until five years old. His legs swell, and he has frequent attacks of lymphangitis.

D. P. L. C.

Ans.—In order to prevent lymphangitis in horses predisposed to it, it is necessary to either give exercise every day, or to materially reduce the grain ration, and substitute bran when he has a day or longer rest. Repeated attacks will end in a chronically and incurable big leg. A purgative of 8 drams aloes and 2 drams ginger, when he is about to have a few days' rest, is the most successful preventive, but, of course, if this is repeated too often, it will reduce him too much in flesh and strength.

#### MISCELLANEOUS.

1. Would it be wise to work a horse during the action of a blister on his leg?  
2. Give cause and cure for a horse knuckling on hind pasterns while standing?

SUBSCRIBER.

Ans.—1. A horse should have rest until the scale has fallen off and the new hair has well started to grow, after having been blistered; but if the blister has not been applied over a joint, it would not injure him to work.

2. This is due either to a congenital weakness of the part or to overwork. Treatment consists in giving rest and applying a blister all around the joints once every month until the symptom disappears. The blister to be used and details for application are frequently given in these columns.

3. Yes; give the milk from a freshly-calved cow. Give it warm, and dilute with  $\frac{1}{4}$  of its bulk of warm water. Give in small quantities, and often, out of a bottle with a rubber nipple.

#### TRADE TOPICS.

THIS CATALOGUE FOR YOU.—One of the oldest and most reliable stove manufacturing concerns in Canada is the Gould Mfg. Co., of Smith's Falls, whose advertisements have been appearing in "The Farmer's Advocate" for some months. It will pay our readers to enquire about their Laurentian stoves, ranges and heaters before buying elsewhere. They issue a catalogue describing their 40-odd styles, and it is well worth having, particularly if you intend buying. A card will fetch it.

DO YOU WANT THIS PICTURE.—The enormous quantities of International Stock Foods that are sold every year in this country forms the very best recommendation they can have. Farmers do not buy them once only, they give repeat orders time after time. Our readers will be interested in the offer which the International Stock Food Co. makes in this issue. Every owner of stock knows Dan Patch, the celebrated breaker of all past records for speed. You can have a picture of the famous Dan if you simply write to the company at Toronto, telling how many head of stock you have, and mentioning "The Farmer's Advocate."

THE GEORGE KEITH CATALOGUE.—The name of George Keith, the Toronto seed man, is known from end to end of Canada. Long established and excellently conducted, his business has increased with succeeding years, and his reputation as a careful and successful seedman has spread throughout the land. George Keith's new seed catalogue for 1906 is a work of art of its kind; printed on fine calendar paper, and illustrated with handsome half-tones. The cover is especially dainty and artistic. However, it is not the externals that make it valuable. The contents consist of exceptional offers for the best seeds that can be sold. All farmers should have this catalogue. You may have others, but write for this one as well. Address a card to George Keith, 124 King St. E., Toronto.

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Drilling water wells, or testing mineral land. Run by steam, gasoline or traction engine. Drills wells from two to sixteen inches in diameter.

THE EDWARD CHRISTMAN CO.  
Massillon, Ohio



Do You Want One?  
WE SELL THEM.

Samis & Bush,  
Calgary.

Write to-day.

### Asthma

CURED TO STAY CURED.

We give prompt relief and permanent freedom from Asthma. Our latest Book, No. 57F, will be mailed on request.

DR. HAYES, Buffalo, N. Y.

### ABERDEEN-ANGUS



Females; all ages, with calves at foot and safe in calf again. All bred by the leading sires and dams. Correspondence invited.

GEO. DAVIS & SONS,  
Glengore Stock Farm,  
Alton P.O. and Station, C.P.R.

Aberdeen-Angus bull for sale, Black Diamond, No. 826, 3 years old this spring. A good individual and extra stock-getter; has never been beaten in showing. Price reasonable. Also one Chester White boar, old enough for service.

A. G. SPAFFORD, Compton, Que.

For **ABERDEEN-ANGUS CATTLE** or a two-year-old **GLYDESDALE STALLION**, write

JAMES BOWMAN, Elm Park, Guelph, Ontario.

For **Aberdeen - Angus**, Young bulls and females—all ages, write

JAMES SHARP, ROCKSIDE, ONTARIO,  
Cheltenham Station, C.P.R. and G.T.R.

### BROXWOOD HEREFORDS.

A few choice bull calves from my imported stock.

R. J. PENHALL, NOBER P. O., ONT.

### FIVE NICE, SMOOTH HEREFORD BULLS FOR SALE.

Two about 16 months and three from 8 to 10 months old. Priced right to do business.

W. BENNETT,

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### THE SUNNYSIDE HEREFORDS

Twelve high-class bull calves and 4 yearling and 2-year-old bull, we will place at a price that will move them quick. Some choice cows and heifers are yet left for sale.

Address:  
A. F. O'NEIL, Maple Grove P.O.  
or M. H. O'NEIL, Southgate P.O.  
Iderton Sta., L. H. & B.; Lucan Sta., G. T.

**FOREST VIEW FARM HEREFORDS**  
Four bulls from 8 to 12 months old; prizewinners and from prizewinning stock. Several heifers bred on the same lines; choice individuals for sale.

JOHN A. GOVENLOCK,  
Forest Sta. and P.O.

**HEREFORDS**—We are now offering a few thick, smooth young bulls and a number of females—a low-down, even, beefy lot. If in want of something extra good, correspond with us. We can please you.

J. A. LOYER, Coldwater P.O. and Sta.



### SHORTHORNS AND SHROPSHIRE

Have sold all the sheep we can spare at present, but have a few Short-horn heifers. No fancy prices asked for quick sales.

**T. H. MEDCRAFT & SON, Sparta P. O.**  
St. Thomas station. Long-distance telephone.

### HIGH-CLASS SHORTHORNS.

The well-known Duthie-bred bull, Scottish Beau, imp. (36099), formerly at head of R. A. & J. A. Watt's herd, now heads my herd. Present offering: A few females of different ages. Also for sale, Clydesdale mare and yearling stallion colt; also choice Barred Plymouth Rock eggs for setting, \$1 per 15.

**N. S. ROBERTSON, Arnprior, Ont.**

### Clover Lea Stock Farm SHORTHORNS

For Sale: One dark roan bull, got by Nonpareil Archer (imp.), out of a Duchess cow; also one show heifer. Prices reasonable.

**R. H. REID,**  
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### Shorthorns FOR SALE

Two red bull calves; 6 heifers, sired by that grand bull sire of unbeaten Fair Queen and sister, Queen Ideal. First prize senior heifer calf at the International, 1904. Also first prize and junior champion, and reserve grand champion at Winnipeg, 1905.

**H. K. FAIRBAIRN, Thedford, Ont.**

### Shorthorns, Cotswolds, Berkshires

Present offerings: Calves of both sexes, from 1 to 7 months; also cows and heifers, 56 head to select from. Nothing to offer in Berkshires or Cotswolds.

**CHAS. E. BONNYCASTLE,**  
Station and Post Office: Campbellford, Ont.

### MAPLE + GROVE + STOCK + FARM Scotch and Shorthorn - Topped SHORTHORNS

Present offering: Two choice nine-month-old bulls, by Captain Mayfly 2nd; also young cows and heifers at very reasonable prices. For particulars write to

**L. B. POWELL,**  
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### SCOTCH SHORTHORNS.

**RIVER VIEW STOCK FARM** is offering young stock for sale from Marr Stamford, Scottish Maid and Rosemary dams, and sired by Scott's Choice=43670=

**A. J. ROWAND, Dumblane, Ont.**

### SHORTHORNS AND LEICESTERS.

4 extra choice young bulls ready for service 4 Also bull calves, all from imp. sires. Leicester ewes and lambs of both sexes for sale. Address

**W. A. DOUGLAS,**  
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### Scotch-bred Shorthorns

Four young bulls fit for service; also several cows and heifers in calf to Good Morning (imp.), now heading the herd, at let-five prices.

**L. K. WEBER, Hawkeville P. O.**

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Imp. Scottish Peer =40424= 4 years old, sure, and a good sire. Also 3 excellent young bulls of his get, and an 8-year-old Clyde stallion. Come and see, or address

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### SHORTHORNS, LINCOLNS & OXFORD DOWNS!

Herds headed by imp. Royal Prince and imp. Abbotsford Star. For sale: Nine bulls, six months to one year, three from imp. dams and imp. sires; also females. Oxford Down sheep and Barred Rock cockerels. **John McFarlane & W. H. Ford, Dutton, Ont., Elgin County.**

### CEDAR VALE SCOTCH SHORTHORNS

Present offering: A few Scotch-bred heifers, sired by Scott's Choice =43670= For particulars write to

**JOHN SCOTT, Dumblane P. O.**  
Port Elgin station and telegraph.

### SMITHFIELD FARM SHORTHORNS.

Herd headed by the Missie bull, Aberdeen Beau, by imp. Scottish Beau. Present offering: One red 15 months' bull, good quality; also young Yorkshire pigs.

**R. E. WHITE, BALDERSON, ONTARIO**

### SHORTHORNS

Young bulls for sale, sired by Spectator, imp. Prices reasonable. Apply to

**JOHN McCALLUM, Springbank Stock Farm,**  
M. C. R. and P. M. R. Box 31, Iona Station.

### MAPLE LEAF STOCK FARM

4 Choice Young Bulls for Sale. Also some cows and heifers, and prizewinning Berkshire pigs. Terms reasonable.

**ISRAEL GROFF, Alma P. O. & Stn., G. T. R.**

### MAPLE HILL SCOTCH SHORTHORNS STOCK FARM

of best families. Herd headed by the grandly bred Lavender bull, Wanderer's Star =48666=.

A few choice young bulls.

**W. R. ELLIOTT & SONS, Guelph, Ont.**

When Writing Please Mention this Paper

### GOSSIP.

Mr. R. E. White, Balderson, Ont., writes: "I have sold the roan Short-horn bull I advertised, to Mr. John Richie, Allan's Mills. This bull is full brother to the first-prize and highest-priced calf at Ottawa in 1905. I have still on hand for sale a red fifteen-months-old bull, sired by White Cloud, a grandson of Imp. Guardsman on the dam's side, and by Strathmore, a son of Abbotsford, on the sire's side. This calf is of the low-down, blocky type, and carries an excellent quality of flesh. The Yorkshires we are offering are from stock bred by D. C. Flatt & Son and H. J. Davis."

Mr. T. H. Hassard, of Millbrook, Ont., writes: "I have recently made the following sales of imported Clydesdale and Hackney stallions: To Fred. A. Armstrong, V. S., Ferguson, Ont., the famous imported champion Clydesdale, Prince Alexander (8899), who has probably won more prizes and sired more prizewinners in Scotland than any stallion ever imported to America. The breeders of Wellington County should be proud of having the golden opportunity of using so valuable a sire. To the Grand Valley Clydesdale Company, Wellington County, Ont., Boquhansan Prince (12057), sired by the celebrated Hiawatha (10067), three times winner of the Cawdor Cup. He is an ideal draft horse, and will, no doubt, do the section in which he is located plenty of good. To Thomas Mercer, of Markdale, Ont., the five-year-old Breadalbane (11637), winner of fourth prize at Toronto this spring, and considered by many competent judges the best in his class. He is a grand size, having great bone of the best quality, with ankles and feet second to none. He was by the invincible Hiawatha (10067), winner of the Cawdor cup three times. To Hisey, Blackburn & MacKay, Creemore, Ont., the grand three-year-old Bright Morn (12498), an extra large colt of the best type, having magnificent bone, grand ankles, the best of feet, action galore, and his breeding of the very best. His sire, Baron Fashion (10973), is a popular breeding horse, by the far-famed champion, Baron's Pride (9122). To the Creemore Hackney Society, Creemore, Ont., the four-year-old St. Regulus, a horse of good size and quality, and one of the highest and fastest going Hackneys in Canada. To the Caledon East Hackney Society, the four-year-old White-wall Dane (8703), pronounced by first-class Hackney judges one of the most handsome and perfect types of the Hackney in Canada, having size, quality and action; to Mr. F. C. McGregor, of Rodney, Ont., the very flash three-year-old Hackney, Alderman Chocolate, a colt that certainly stands in the front rank, possessing size, quality and action, and is a model of the breed."

"At my Regina (Sask.) stables, I have sold twelve choice Clydesdale and Hackney stallions, and have added another grand lot that will, no doubt, be picked up before the breeding season. I intend doing business at my Regina branch on a much larger scale this coming season. At my Millbrook stables, I have four very choice Clydesdale stallions, sired by Marcellus, Ascot, Lord Lothian, and Royal Bounty. Two of them were awarded prizes at the spring fair, Toronto, this year; ages, three, four and five years old; all in good condition, and ready for a good season, and will be sold at right prices. Also, at the Millbrook stables, I have four grand Hackney stallions, three of them prizewinners, and all in first-class breeding condition, having been well kept and exercised during the winter months. Private individuals, or district companies, should not overlook this lot of extra high-class Hackneys, as they have size, breeding, quality and action, grand conformation, all four being extra good all-round actors, and their breeding unexcelled. Owing to my recent illness, these eight horses are going to be sold at purchasers' prices, and persons looking for stallions should not miss this opportunity. The ages of the Hackneys are three, six and eight years; color, brown and chestnut; all good breeding horses, and sure foal-getters. My stables are in the village of Millbrook, on the G. T. R., sixteen miles north of Port Hope, on the Midland division, and four miles from Cavanville, on the main line, C. P. R. Long-distance phone in connection with the barns, Millbrook P. O., Ont."

### QUESTIONS AND ANSWERS. Veterinary.

#### GROWTH ON EYELID.

Dog has small growth, the size of a bean, on the inside of each eyelid.

H. H. K.

Ans.—Get your veterinarian to remove these growths by an operation. Applications that would remove them would destroy the eyes, and carelessness in operating might be followed by serious results, hence it will be better to get a veterinarian to operate.

#### TEETH REQUIRE ATTENTION.

Cow, when eating hay, moans, groans, throws head up, moves backwards and forwards, shakes head, blows through nostrils, switches tail, stamps with feet, ceases chewing, commences to chew again, when the half-chewed hay falls out of mouth and saliva escapes. She chokes and coughs. Another cow acts somewhat the same, but does not moan and cough. They stand in the same stall.

C. S. N.

Ans.—The symptoms indicate either irregularity of the molar teeth, toothache, or a growth in the back part of the mouth. It may not be possible to locate the trouble if it be toothache, but if it be irregularity of the molars, they can be dressed. There may be some growth in the pharynx or throat that cannot be seen or removed. Get your veterinarian to examine her, and it is probable he can remove the cause.

#### OPEN JOINT.

Give treatment for an open joint; the oil escapes freely.

H. L.

Ans.—Cases of open joint require prompt and energetic treatment. If treated in the early stages, before suppuration has commenced, it is well to cleanse the wound thoroughly, fill with iodoform, stitch and bandage, and keep the horse as quiet as possible. In about 10 days, the bandage is removed, when the wound will have healed. If suppuration is established, as, doubtless, it is in your case, the better plan is to arrange so that a small stream of cold water, out of a small rubber tube attached to an elevated tub, will run on the joint constantly. Dress the wound frequently with a lotion composed of 1 ounce each sulphate of zinc and acetate of lead to a quart of water. Keep as quiet as possible, and, if necessary, sling. If yours was really a case of true open joint, he will doubtless be dead before this. The treatment varies greatly with the condition of the parts.

#### MISCELLANEOUS.

1. I have two Shorthorn cows that I have bred regularly to my own bull for more than a year, and they will not conceive. They show oestrus about every eighteen days, and it continues from thirty-six to forty hours. I got two veterinarians to operate on them. One used an instrument to open the os, but still they will not breed.

2. Clyde-dale horse, with very hairy legs, bites his fore legs between knees and fetlocks.

3. Pregnant mare rubs her tail and legs, and tramps the floor.

4. Draft horse, two years old, is too long and oblique on his fore pasterns, and the fetlock pad descends too much. I got him shod with high heels, but it seems to be hard on him to trot.

5. Clydesdale mare, three years old, does not eat hay properly, and she smacks her lips.

E. G. K.

Ans.—1. Nothing can be done, except try another sire. It is probable there is disease of the ovaries, and if so, they will not breed.

2. Make a solution of corrosive sublimate, 30 grams to a pint of water, and rub a little well into the skin once daily. Purge with 10 drams aloes and 2 drams ginger. Follow up with 2 ounces Fowler's solution of arsenic twice daily for a week.

3. Rub daily with lotion advised for question 2.

4. This is an undesirable conformation, and cannot be altered. Shingling with high heels will prove injurious.

5. The first two temporary molars in each row are shedding. It is probable the crowns could be removed with a forceps. It is probable the shedding will cease when the new molars are grown.



**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 Vest-Pocket Veterinary Adviser. Write us for a free copy. Ninety-six pages, covering more than a hundred veterinary subjects. Durable bound, indexed and illustrated.

**FLEMING BROS., Chemists,**  
45 Church Street, Toronto, Ontario

### PURE SCOTCH

### SHORTHORNS

Herd Bulls: Imp. Prime Favorite =45214=, a Marr Princess Royal.

Imp. Scottish Pride =36106=, a Marr Roan Lady.

Present offering:

2 imported bulls.

15 young bulls.

10 imported cows with heifer calves at foot and bred again.

20 one- and two-year-old heifers.

Visitors welcome. New catalogue just issued.

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

Burlington Jct. Sta. Long-distance telephone in residence.

### SHORTHORNS

Still have a few bulls, one roan and three reds, one red from Imp. Mary Ann 6th, got by Kinellar Stamp; also a few females for sale, all by Kinellar Stamp.

**SOLOMON SHANTZ, Haysville, Ont.**

Plum Grove Stock Farm. Baden Station.

### ROWAN HILL SHORTHORNS

Herd bull for sale: Greengill Archer, imp., 45184, as some of his heifers are of breeding age, and herd is not large enough to keep more than one bull; also a few young bulls and heifers.

**A. DUNCAN & SONS, Carleton Place, Ont.**

### J. Watt & Son SHORTHORNS

A number of extra good young cows for sale, three of them each raising a nice heifer calf; also a number of yearlings, just bred.

**SALEM P. O. Elora Stations, G. T. R. and C. P. R.**

### Hillhurst Shorthorns

Registered bull calves for sale, by Broad Scotch =46315=, from imported English and home-bred dams of good milking strains.

**JAS. A. COCHRANE, Compton, P. Q.**

### Queenston Heights SHORTHORNS

One bull, 18 months, extra size and quality. Got by Derby (imp.) =3-053=. Splendid value at price asked.

**HUDSON USHER, Queenston, Ont.**

### SHORTHORNS and BERKSHIRES

Present offering: Several good young bulls, and a choice lot of young pigs.

**JOHN RACEY, JR., Lennoxville, Que.**

### For Shorthorns—One young bull, 14 months

old; cows and heifers, all ages. Shropshires, all ages and both sexes.

**BELL BROS., "The Cedars" Stock Farm Bradford, Ont.**

### Bonnie Burn Stock Farm

offers Scotch and Shorthorn heifers, some bred; also two bulls, one roan, one red, 13 and 25 months, sired by Director 2nd (imp.) and Rustie (chief imp.), out of Mina 6th (imp.); all Scotch. A bargain, considering breeding.

**D. H. RUSSELL, Stouffville, Ont.**

### SHORTHORNS AND DORSETS

We are offering at living prices two 2-year-old and two 1-year-old heifers, a couple of young bulls and the stock bull, White Count 37871. The offering is a lot of good stuff and in good condition. Also a few H. red Dorsets.

**D. BARTLETT & SONS, Smithville P. O. and Sta.**

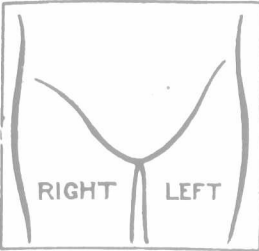
Young Shorthorn Bulls for Sale One 2 years old and several under one year. Also a number of females. Good milking strain. Prices right.

**GEORGE LEWIS, Balmatote, Ontario.**



# THE NEW QUICK WAY TO CURE RUPTURE

Is Without Operation, No Pain, No Danger, No Loss of time From Daily Work.



This Remarkable Simple NEW WAY TO CURE RUPTURE has opened up a new era in the treating of this terrible danger...

DR. W. S. RICE, 2 1/2 East Queen St., Block 279 Toronto, Ont.

Do you wear a truss? Does rupture pain? On which side ruptured? Ever operated on for rupture? Age? Time ruptured? Name? Address?

## VALLEY FARM



FOR SALE

Red Bull—"Montrose," 16 months, price, \$100. Red Bull—"Lord Minto," 12 months, price, \$100. Roan Bull—"Bold Buccleuch," 12 months, price, \$150. Roan Bull—"Borderer," 15 months, price, \$65

These bulls are well grown and fit for service, the first three being sired by our imported Scotch bull, "Magistrand"

All registered. These prices much below value, but stock must be sold. Apply to

A. SUMMERS, Aldershot P. O., Ontario.

## SCOTCH SHORTHORNS



9 heifers, yearlings. 4 bulls, yearlings. 29 heifers, calves. 27 bulls, calves.

All out of imported sires and dams. Prices easy. Catalogue.

JOHN CLANCY, H. CARGILL & SON, Manager. Cargill, Ont.

## SHORTHORNS

One imported aged bull, grandly bred and a great sire. One imported bull, three years old, a show bull and good sire. Four good big young bulls, from imported sires and dams, the kind we all want.

Ask for catalogue of Straight Scotch Shorthorns, with lowest prices. Will import Show and Breeding Sheep of all the mutton breeds, and am taking orders now.

ROBERT MILLER, Stouffville, Ontario. Telephone, Telegraph, Post Office & Railway Sta.

T. DOUGLAS & SONS, Strathroy, Ont.

## SHORTHORNS and CLYDESDALES

Present offerings: 13 young bulls, of No. 1 quality, ready for immediate service; also cows and heifers of all ages. Also one imp. stallion and two brood mares. Prices reasonable. Visitors welcome. Farm one mile from town.

## SHORTHORNS

The champion herd of Canada, 1905, is headed by the great show and breeding bull Mildred's Royal and Springhurst. Cattle of all ages for sale, whether for the breeding herd or the showing.

R. A. & J. A. WATT, Salem Post and Telegraph Office, Elora Stn. 13 miles north of Guelph, on the G. T. R. & C.P.R.

## SCOTCH-TOPPED SHORTHORNS.

Three young bulls, from nine to thirteen months old; also several young heifers by Scottish Baron (Imp.) for sale. Prices reasonable.

H. GOLDING & SONS, Thamesford, Ont. Stations, Thamesford, C.P.R.; Ingersoll, G.T.R.

Shorthorns for Sale—Some choice young bulls and heifers, got by British Flag, imported from deep-milking cows, registered. Prices moderate. C. & J. CARRUTHERS, Cobourg Stn. and P.O.

## A. EDWARD MEYER

Box 378, Guelph, Ont. SCOTCH SHORTHORNS

A specialty. Herd bulls—Scottish Hero (Imp.), Shethin Rosemary, Radium, a Cruickshank Myrtle. Correspondence solicited. Visitors welcome. Long-distance phone in house.

GEORGE D. FLETCHER, Breeder of Scotch Shorthorn Cattle and Large English Yorkshire Swine. Herd headed by the Duthie-bred bull (Imp.) Joy of Morning, winner of first prize at Dominion Exhibition, Toronto, 1903. Present offering: young Shorthorns of either sex; also a choice lot of Yorkshires of either sex, six months old, from imp. sire and dam. Prices easy. Binkham P. O., Ont. Erie Station and Tel.

## Shorthorns for Sale

Two real good 12 and 13 months' old bulls, Strathallans, sired by the Brawith Bud bull "Golden Count" =44787=; also a 4-year-old Strathallan cow with a choice 2 months' old heifer calf at foot, sired by Golden Count. She has again been bred to same bull. Will sell a few 2-year-old Strathallan heifers, bred since the New Year.

JOHN CAMPBELL, Fairview Farm, Woodville, Ont.

Oak Grove Shorthorns—Present offering: Several imp. cows, heifers and young bulls, all sired by Imp. Nonpareil Duke and out of imp. dams; also the stock bull, Imp. Nonpareil Duke a choice offering. Prices right. W. J. ISAAC, Cobourg Station, Harwood P. O.

Sunnyside Stock Farm—8 superior young Shorthorn bulls for sale. All from imp. bulls, four from imp. cows. Good enough to place at head of any herd. Apply JAMES GIBB, Brookside P.O. and Telephone.

Wm. Grainger & Son, Hawthorn Herd of deep-milking Shorthorns. Aberdeen Hero (Imp.) at head of herd. Eight grand young bulls by Prince Misty =37864=. Prices reasonable. Lonsdale Sta. and P.O.

## SCOTCH-TOPPED SHORTHORNS

Five choice young bulls, 8 to 12 months; also four heifers. W. H. WALLACE, Woodland Farm, Mt. Forest, Ont.

## QUESTIONS AND ANSWERS. Veterinary.

### SPAYING BITCHES, ETC.

1. I have a litter of puppies. Can they be spayed, and be made successful dogs? About what age should they be operated upon, and who can do it?

2. Is there any veterinary college in Ontario, except the one in Toronto? Are there many openings for veterinarians in Ontario for a young man in the profession? W. A. H.

Ans.—1. The female puppies can be spayed by a veterinarian. The operation can be performed at any age over two months old, but it is better to operate at between two and three months. The success of the dogs will depend upon the individuality rather than on the operation. A bitch that is spayed when quite young, as stated, usually makes a good dog, while if allowed to reach two or three years before the operation, they are usually inclined to lay on too much fat, and get lazy, like a castrated dog. Of course, it is a critical operation, and sometimes proves fatal, but is generally successful.

2. There is no veterinary college in Ontario, except "The Ontario Veterinary College," in Toronto. Ontario may truly be said to be overstocked with veterinarians, but there is always room at the top. V.

### ABORTION.

Mare aborted in 1899 and 1900. We bred her again in 1903 and 1904, and she carried foals to full term. In 1905, a cow calved about 25 feet from her, and she aborted in four days. The stable was whitewashed two days before. She is very nervous. The years she produced foals at full terms, she was tied in a single stall. The last year she aborted, she was in a box stall.

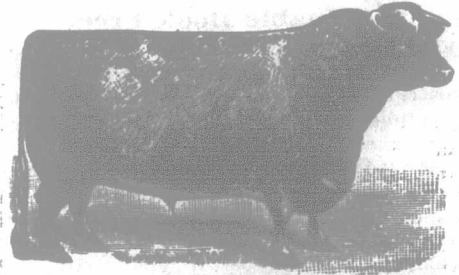
F. H. W.

Ans.—Mares readily acquire the habit of abortion. The smell of blood is very liable to produce it in mares that are predisposed. It is possible her proximity to the cow during parturition caused the last abortion. There is no question about the fact that a box stall is preferable to a single one for a pregnant mare. The next time you breed her be very careful to avoid excitement or odors to which she is not accustomed. Give her regular exercise or light work during pregnancy. Feed moderately on hay, oats, bran, and a few carrots. About the time she usually aborts, be very careful of her, and watch her closely, and if she shows any symptoms of abortion, give her 2 ounces laudanum in half pint cold water as a drench, and repeat every two hours until the symptoms disappear. Keep her, during this period, very quiet, and free from all excitement. V.

### UNTHRIFTY HORSE.

Six-year-old horse, naturally very spirited and very nervous, does not drive with his usual vim. He eats well, and is well fed. His skin is loose, but the hair has not the gloss it should have. His legs swell, but go down on exercise. He is failing in flesh, and his eye is dull. A little noise causes him to pass a little urine. Pressure over the kidneys causes pain. He never shows sickness or distress, and he urinates freely. We treated him for worms, but are now treating for his kidneys. Our veterinarian thinks he may have gall stones. J. A. H.

Ans.—You must be mistaken about your veterinarian's opinion. Gall stones are in the liver or its ducts, not in the kidneys. It is not probable he has renal calculi (stones in the kidneys), else he would show pain occasionally, and probably pass a little blood. Most horses flinch if pressed over the kidneys, and these organs are so deeply covered with bone and muscle that pressure on the muscles has little effect upon them. My opinion is that his unthrifty condition is largely due to his nervous disposition. I would advise very gentle and careful treatment and care, and the administration of tonics. Take equal parts sulphate of iron, gentian, ginger and nux vomica, and give him a tablespoonful three times daily. If he has calculi in the kidneys, practically nothing can be done, and they will eventually kill him. V.



## ARTHUR JOHNSTON Greenwood, Ont.

Offers for sale, at moderate prices,

## 12 high-class yearling BULLS

All sired by imported bulls, and most of them from imported dams.

Also imported and home-bred cows and heifers of all ages.

## GREENGILL HERD of high-class

## SHORTHORNS



We offer ten young bulls ready for service, a number of them from imported sire and dam; also high-class females, all ages, either imported or Canadian-bred. The herd is headed by (Imp.) Lord Roseberry.

R. MITCHELL & SONS, Nelson P.O., Ont.; Burlington June Sta.

## CEDARDALE SHORTHORNS



For immediate sale: Four young bulls and a few heifers, a nice thick, well-put-up lot, and bred on heavy-milking lines. Will be sold cheap.

DR. T. S. SPOULE, M.P., Markdale, Ont.

## Shorthorn Cattle and Lincoln Sheep

Shorthorn bulls, cows and heifers for sale at greatly reduced prices for the next 60 days.

J. T. GIBSON, Denfield, Ont.

## CALF-SKINS

HIDES. FURS.

Consignments solicited. Top prices.

E. T. CARTER & CO., TORONTO.

"Tell me, little girl, who is the oldest inhabitant in this village?" "There ain't no more, mum. He died last week."

## RAINY RIVER MAN HAD TROUBLES

Till Dodd's Kidney Pills Cured His Kidneys.

Then His Rheumatism and Other Pains Vanished Once and for All—His Case Only One of Many.

Barwick, Ont., April 9th.—(Special).—That Dodd's Kidney Pills will cure Rheumatism, or any other disease resulting from disordered Kidneys, is the experience of many of the settlers in this Rainy River country. The case of William John Dixon, of this place, is a fair sample of the work the great Canadian Kidney Remedy is doing.

"I had Rheumatism so bad I had to use a stick to walk. I had pains in my back and right hip, and I had no comfort in sleeping.

"I could no more than dress or undress myself for nearly two months, and I was for nearly three weeks I could not lace my right shoe.

"My brother advised me to try Dodd's Kidney Pills, and I did so. After taking three boxes I could walk around and lace up my shoes and do my work. Six boxes cured me completely."

Dodd's Kidney Pills are the one sure cure for sick Kidneys. Sick Kidneys are the cause of nine-tenths of the ills the human family suffers from.



**A Valuable Book Free.**

Every stockman and farmer should have it. It is full of good reading and good illustrations. The illustrations are made from photographs of the greatest prize-winning stock in Canada.

Toronto champions, Pan-American champions, and St. Louis World's Fair champions. The book is certainly worth writing for, and we will send it to you promptly, without cost, if you write the Beaver Mfg. Co., of Galt. Send us your address, and mention this paper. Address the Beaver Mfg. Co., Galt, Ont.

**Maple Shade**

CRUICKSHANK  
SHORTHORNS

**AND SHROPSHIRE SHEEP**

We have now for sale one (imp.) bull, 15 months; also a good roan junior yearling show bull. Catalogue on application.

**JOHN DRYDEN & SON**

Brooklin, Ontario.  
Stations: Brooklin, G.T.R. Long-distance telephone.  
Myrtle, C.P.R.

**CLEAR SPRING SHORTHORNS.**

Imp Spicy Broadhooks at the head of herd Young bulls from 6 to 11 months old, females all ages  
Prices reasonable Call or write

**JAMES BROWN, Thorold.****SHORTHORNS AND LINCOLNS.**

Present offerings: 4 choice young bulls 9 to 14 months; also a few good heifers, Lincolns, descended from the best English flocks.

JOHN LEE & SONS,  
Highgate, Ont.

40 miles west St. Thomas, on  
M.C.R.R. & P.M. Ry.

**6 Shorthorn Bulls 6**

One two-year-old from imported Mayflower cow, and by an imported Archer bull. Also BERKSHIRES, 4 to 5 months old, bred from large show stock and prolific strains.

**S. J. PEARSON, SON & CO.,**

Meadowdale, Ont.  
Stations: Streetsville and Meadowdale, C. P. R.

**KENWOOD STOCK FARM.****SHORTHORNS.**

Headed by (Imp.) Jilt Victor=45187=. 10 grand young bulls; also heifers; from imp. and home-bred cows, for sale. Choice Lincoln sheep; Berkshire and Tamworth hogs offered.

HAINING BROS., Highgate, Ont. Kent Co.

**Riverview Shorthorns and Oxfords**

Shorthorns represent Crimson Flowers, Athelstanes, Lady Janes and Roses.

We have for sale eight bulls, including our stock bull, four yearlings, and the balance calves; also a few one, two and three year-old heifers. A thick, straight, mossy lot. Also some spring and one-year-old Oxford rams.

Peter Cochran, Almonte P. O. and Sta.

**Maple Lodge Stock Farm.**

1854.

An excellent lot of Shorthorn bulls and heifers for sale now. Have choice milking strains. Have a few Leicesters left yet. Bargains in ewes.

A. W. SMITH, Maple Lodge, Ont.

**Pine Grove Stock Farm.**

Breeders of

High-class Scotch Shorthorns,  
Choice Shropshire Sheep, Clydesdale and Hackney Horses.

Herd catalogue on application. Address:

C. W. WILSON, Supt., Rockland, Ont.  
W. C. EDWARDS & Co., Limited Props. Ont.

**SHORTHORN BULLS**

and HEIFERS

Sired by the Scotch bull, Scottish Lad 45061

FOR SALE.

S. DYMENT, Barrie, Ontario.

**SPRING VALLEY SHORTHORNS.**

Herd headed by Imp. Bapton Chancellor=40359=(78286). A choice lot of females, mostly with calves at foot or safe in calf. Also a good six-month-old bull calf. Inspection and correspondence invited.

KYLE BROS., Ayr P. O.  
Ayr, C.P.R.; Paris, G.T.R.

**Modern Methods Avoid Waste.**

J. Ogden Armour, in a recent issue of the Saturday Evening Post, draws attention in the following sentences to the utilization of packing-house (abattoir) by-products.

"Waste not" is the packer's creed, and his scientific faithfulness to it—inspired by self-interest—is actually one of the most fruitful sources of economic advantages to the people of the civilized world, thus far brought about by the aid of the laboratory of the scientist.

Let us see just how much this by-product utilization means to the grower and the consumer of food animals, as well as the people in general.

In the old times, packing was done in the winter. The first change in method was the use of ice, and the commencement of summer packing. This started in hog-packing, but, with the introduction of the refrigerator car, beef was killed largely in the summer. About this time some of the packers adopted the method of packing and shipping meats in tin cans. The refrigerator car permitted beef to be killed near where it was grown, as it was cheaper to pay freight on 550 pounds of carcass beef than on a thousand pounds of live animal.

Immediately following this, the railroads endeavored to advance the freight on dressed beef, so that they could still continue to ship the animals alive on the hoof, as they were afraid that their tonnage would be materially reduced. It was soon demonstrated that under the new system, their beef tonnage was greater, and their old live-animal tonnage smaller, and though the dressed-beef rates East were much greater per pound than for live animals, yet the freight on 550 pounds of dressed beef is less than on 1,000 pounds of live animal.

The 450 pounds of non-edible material was largely thrown away, although the hide and tallow were utilized. Later, some of the waste product was used in the manufacture of glue. Nitrogen being the chief element in plant food, and this being abundant in the great mass of refuse matter originally thrown away as hopeless waste from all the packers' processes, a most important economic advance was made in the step which turned this large volume of scrappage into fertilizer.

It is good sense and for the best interest of the world that all material not needed to feed, clothe and heal the world should be returned to the ground as food for plants to grow more grain, to feed more cattle, and to feed more people. This is the circle completed by the packer.

All the cunning of the chemist has been called into service to save, to make the most of every scrap of material in hand, and to discover new ways in which some element of waste may be diverted from uselessness to use. Hundreds of valuable products are now made and shipped all over the world from materials which, under the old methods, had little or no value. Thousands of people are employed in manufacturing these products. The technical schools are constantly being called upon for young men to aid in solving new problems in by-product utilization. New plants are being built requiring material, machinery and labor in their construction. Success in by-product utilization in the packing industry has directed the attention of other industries to this important element in industrial administration.

The furniture of the country is glued with packers' glue. A great deal of the wool used in clothing is from sheep slaughtered by the packers. One of the largest sources of curled hair is the switch from the tails of the cattle. A large portion of the soap manufactured comes from the tallows and greases prepared by the packers. The colors in the summer prints worn by women are largely fixed by the use of albumen prepared by the packers, as is also the finish on many of the finer leathers. The horn comb, hairpins and buttons are made from the horns of steers. The knife-handle, the bone button and many other articles are made from the hard bone of cattle.

Packing-house laboratory products, the results of original research by scientists of the first class, are employed every day by physicians, surgeons, dentists and

chemists throughout the world. More than thirty recognized therapeutic agents of animal origin are produced in Armour & Co.'s laboratory. Among them are the pepsin and pancreatin that physicians use in treating digestive disorders. There is a product of thyroid glands that is employed in treating cretinism or idiocy. Another is suprarenalin, used in the most delicate surgical operations to stop the flow of blood. To illustrate how closely the by-product feature of the business is gleaned, the suprarenal glands of more than 100,000 sheep are required to produce one pound of suprarenalin, and, when produced, this suprarenalin is worth more than \$5,000 a pound.

Certain by-products of the packing plants are used for hardening and for coloring steel; in fact, materials of animal origin, the result of by-product utilization, enter into the manufacture of almost every article extensively.

The packer who could make the most out of these products could afford to pay and did pay more for the live steer than his competitor who was not so progressive, and, in consequence, he got his pick of the cattle. The stock-grower was benefited by the higher price paid for the live animal, and the people were benefited by the lower-selling cost of the beef over the old method. One cannot eat his cake and have it too, and the reward that the packer received was that of increased business and the decreased cost per head of killing cattle, owing to his much heavier kill; but, in order to cash in that reward, he had to give both the stock-grower and the public a part of the benefit of by-product utilization.

**GOSSIP.**

Mr. Robert Miller, Stouffville, Ont., writes: "Since writing you a short time ago, I have made the following sales of Shorthorns and Shropshires: "To Mr. W. Widdifield, Uxbridge, Ont., the imported three-year-old bull, North of Scotland—55032—(89438), a Lady Dorothy, sired by Cornelius (66864), a full brother of the champion, Corner Stone, and, in the opinion of many, the best sire in the district of Alerdeen where owned. North of Scotland is a smooth, good-sized bull, has a fine head and horns, and he has proven himself a good sire. To Mr. Wm. Fry, Sutton, Ont., have just sold the beautiful young red bull, Comrade—61689—, sired by the imported Clara bull, sold last year to Mr. Guy Bell, and that will be sold soon at his dispersion sale. Comrade's dam was the imported Claret cow, Comely, from which I have sold three good bulls within the past two months. She has given birth to four calves within 24 months, and will have another before the end of the year. Comrade is one of the nicest young bulls I have bred. To L. S. Dunham, Concord, Mich., have sold a car of very choice Shropshires—some ewes, some ewe lambs and some ram lambs. To other parties have sold fifty-five choice ewe lambs, and to George McKerron, Wisconsin, have sold a lot of the best ram lambs that I have ever had. Have about 150 ram lambs, and they are thriving well, am afraid the supply will be a long way short of the demand in September next. The lamb crop has never been better, and it goes to show what a fine winter and lots of exercise will do."

**TRADE TOPIC.**

WARNING—I wish to state positively that no one has in the past, nor will in the future be authorized or permitted to sell in halls, tents, or in any public places, my prescriptions—Dr. Shoop's Remedies. Reputable druggists or chemists are my only legitimate representatives.

Certain parties, of questionable reputation, have been offering manufactured articles in the undignified manner mentioned above, said articles purporting to have been created at my laboratories. Probably the persons responsible for this deception are aiming to gain the advantages that naturally will come to them because of the popularity of the genuine Dr. Shoop's preparations.

This article is published as a means of warning the public against the deception in question. Prosecutions at law will follow.

C. I. SHOOP, M. D.

**INDIGESTION!**

Stomach trouble is not really a sickness, but a symptom. It is a symptom that a certain set of nerves is ailing. Not the voluntary nerves that enable you to walk and talk and act—but the AUTOMATIC STOMACH NERVES over which your mind has no control.

I have not room here to explain how these tender, tiny nerves control and operate the stomach. How worry breaks them down and causes indigestion. How misuse wears them out and causes dyspepsia. How neglect may bring on kidney, heart and other troubles through sympathy. I have not room to explain how these nerves may be reached and strengthened and vitalized and made stronger by a remedy I spent years in perfecting—now known by physicians and druggists everywhere as Dr. Shoop's Restorative (Tablets or Liquid). I have not room to explain how this remedy, by removing the cause, usually puts a certain end to indigestion, belching, heartburn, insomnia, nervousness, dyspepsia. All of these things are fully explained in the book I will send you free when you write. Do not fail to send for the book. It tells how the solar plexus governs digestion and a hundred other things everyone ought to know—for all of us, at some time or other, have indigestion. With the book I will send free my "Health Token"—an intended passport to good health.

For the free book and the "Health Token" you must address Dr. Shoop, Box 52, Racine, Wis. State which book you want.

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

Dr. Shoop's Restorative Tablets—give full three weeks' treatment. Each form—liquid or tablet—have equal merit. Druggists everywhere.

**Dr. Shoop's Restorative.****GLENAVON STOCK FARM. Shorthorns and Berkshires**

Will be sold cheap if sold before the 1st of April, the following: 3 bulls (Shorthorns) and one Berkshire boar.  
W. B. ROBERTS, Sparta P. O.  
Sta.: St. Thomas, C.P.R., M.C.R., G.T.R.

**PLEASANT VALLEY SHORTHORNS**

Herd headed by imp. Old Lancaster=50068=. Grand champion, Toronto, 1905, and consisting of females of the leading Scotch families; can spare a few young cows bred to imp. Old Lancaster.

GEO. AMOS & SON, Moffat Stn. and P.O., C.P.R.

**SHORTHORNS**

Imp. Keith Baron 36050. Six young bulls from 10 to 18 months old. A lot of 2-year-old heifers in calf and a few young cows. A bunch of heifer calves, cheap.

**CLYDESDALES**

Just now: One pair of matched geldings 5 and 6 years old; show team.

JAS. McARTHUR, Goble's, Ont.

**BELMARPAC SHORTHORNS**

40 bull calves.  
16 heifers under two years.

All of the choicest breeding and practically all of show yard quality. You can buy anything in the herd at a reasonable figure.

JOHN DOUGLAS, Manager. PETER WHITE, JR., Pembroke, Ont.

JOHN GARDHOUSE & SONS, Highfield P.O., Ont.

Breeders of Scotch and Scotch-topped Shorthorns, Lincoln and Leicester Sheep and Shire Horses.

A good selection of young stock of both sexes always on hand for sale. Scottish Prince (imp.), Vol. 49, at head of herd. Royal Albert (imp.) 20367, at head of stud. Farms 34 miles from Weston, G. T. R. and C. P. R., and electric cars from Toronto.

Glen Gow Shorthorns—Our present offering is 9 bulls, from 6 to 14 months of age, sired by Imp. Ben Loman and Imp. Joy of Morning, and out of imp. and Canada-bred cows. Also a number of very choice heifers. No fancy prices asked. Long-distance telephone.

WM. SMITH, Columbus, P.O.

Brooklin and Myrtle Stns.

Willow Bank Stock Farm | Established 1855

**Shorthorn Cattle, Leicester Sheep.**

Imp. Rosicrucian of Dalmeny=45290= at head of herd. Choice young stock for sale.

JAMES DOUGLAS, Caledonia, Ont.

Brown Lee Shorthorns—Present offering is 3 young bulls from 9 to 15 months old, a nice straight, good-doing lot, sired by Blenheim Stamp; also females of all ages, daughters of Imp. Sir Christopher and Imp. Beauchamp. Prices very reasonable.

DOUGLAS BROWN, Ayr P.O. and Station.





HERE'S A PAROID ROOF, "The Roof That Lasts."

The Monmouth Poultry Farm, Freneau, N. J., one of the largest in the country, sends a photograph (see above) showing their Paroid roofs. They like it and so do thousands of poultrymen, the large ones and the small ones, because they found that for roofing and siding, nothing in the world equals

PAROID ROOFING.

Economical, durable, extra strong, light slate color—contains no tar—does not run nor crack—does not taint rain water. Any one can lay it. Keeps buildings of all kinds warm and dry; spark, water, heat, cold, acid and gas proof, in short it's just the roof you're looking for. Now, don't be put off with a poor imitation, but

Send for Free Samples and name of nearest dealer. Investigate its merits for yourself. For a 2 cent stamp we'll send new book of complete plans for poultry and farm buildings.

F. W. BIRD & SON, Makers.

Originators of the free Roofing Kit—fixtures for applying in every roll. Established 1817. HAMILTON, ONTARIO.

Advertisement for THE BISSELL Disk, featuring an illustration of the disk and text describing its benefits for horse-drawn work.

Advertisement for ROCK SALT and BARREN COW CURE, including an illustration of a cow and text describing the products.

Advertisement for HOLSTEIN BULL, featuring an illustration of a cow and text describing a specific bull named Piebe De Kol.

For Sale. Fine young JERSEY and GUERNSEY bulls. Six to fourteen months old.

HIGHGROVE JERSEY HERD. Our present offering is a few choice heifer calves from 2 to 3 months old.

Robt. Tufts & Son, Tweed P.O. & Sta. Brampton Jersey Herd. We have now for immediate sale 10 bulls.

Lyndale Holsteins. For Sale. A number of bull calves from one to four months old.

Grove Hill Holsteins. Herd contains 55 head, in the advanced registry.

IMPERIAL STOCK FARM HOLSTEINS. A prizewinning herd of imported, officially tested stock.

"GLENAROHY" HOLSTEINS. We have for immediate sale several young bulls, and a number of young females.

ANNANDALE HOLSTEIN HERD. Have won during the past show season at Ottawa first and sweepstakes on cow.

WOODBINE HOLSTEINS. Herd headed by Sir Mechthilde Posch, also lately the best official-backed sire in Canada.

HILL AND CENTRE VIEW HOLSTEINS. 95 head. Stock bulls bred on high-producing lines.

MAPLE GROVE HOLSTEIN-FRIESIANS. For Sale: Three bull calves, sired by Lord Wayne Mechthilde Calamity.

WALBURN RIVERS, Falden's Corners. Apply

GOSSIP.

The catalogue is issued of the herd of 117 head of Shorthorn cattle belonging to the estate of the late Mr. Philo L. Mills, of Ruddington, England, to be sold by auction on May 3rd.

Hamilton & Hawthorne, of Simcoe, Ont., write: "We have sold to James H. Armstrong, of Carp, Ont., for the handsome sum of \$2,000, the grand imported Clydesdale stallion, Royal Brunstane (9977), by Prince of Brunstane (8899), dam Jean of Rigg (11453).

W. G. Pettit & Sons, Freeman, Ont., report the following recent sales of Shorthorns from their herd: "To the Windermere Stock Improvement Company, Windermere, Ont., a very nice Scotch-topped fifteen-months-old bull, to M. M. Smith, of Milan, Quebec, the eighteen-months-old bull, Mayflower Royal.

CHERRIES A PAYING CROP IN BRITISH COLUMBIA.

The West is a great country, and it never loses anything when one lets the Westerners tell about it. Confidence, enthusiasm, unbounded optimism are stamped upon their faces and in all their talk.

Many Women Suffer UNTOLD AGONY FROM KIDNEY TROUBLE.

Very often they think it is from so-called "Female Disease." There is less female trouble than they think. Women suffer from backache, sleeplessness, nervousness, irritability, and a dragging-down feeling in the loins.

DOAN'S KIDNEY PILLS

Price 50 cents per box or three boxes for \$1.25, all dealers or sent direct on receipt of price. The Doan Kidney Pill Co., Toronto, Ont.

RIVERSIDE HOLSTEINS

80 head to select from. Six young bulls, from 4 to 7 months old, whose dams have official weekly records from 16 to 21 lbs. butter.

MATT. RICHARDSON & SON, Oshawa, Ont.

With Cheese at 12c. and Butter at 25c. why not Buy a Holstein Bull

and Improve Your Dairy Herd? I have them Right in Breeding, Right in Quality, Right in Price. Order early if you want one.

G. W. CLEMONS, ST. GEORGE, ONT.

HOLSTEINS AND CHESTER WHITES.

Our Holsteins are producers and prize-winners. Young bulls and a few choice heifers for sale, also some extra good young Chester White pigs.

A. C. MAILMAN, Waterloo Co., Breslau, Ont.

SPRINGBROOK HOLSTEINS & TAMWORTHS

Two choice bulls, 11 and 13 months old, Toronto prize-winners, rich breeding; yearling Tamworth boar, 2nd prize at Toronto, good stock-getter.

A. C. MAILMAN, Waterloo Co., Breslau, Ont.

QUEEN CITY HOLSTEINS

If you would like to purchase a young Holstein bull whose sire's dam has an official record of 560 pounds of milk and 26 pounds of butter in seven days, write to R. F. HICKS, Newton Brook P.O., York Co., Ont.

R. W. WALKER, Uxton P.O., Ont.

Meadowside Farm

Ayrshire Cattle, Shropshire sheep, Berkshire pigs, B. P. Rocks and B. Oringtons. Young stock for sale.

A. R. YULL, Prop., Carleton Place, Ont.

SPRINGBROOK AYRSHIRES.

Gave over 7,000 lbs. of milk, testing 3.9 per cent. butter-fat, during 1905. For sale: One bull, 2 years old, Comrade's Fancy of Glenora 18790; bull calves of this year; also females of all ages.

W. F. STEPHEN, P.O. Box 163, Huntingdon, Que.

SHANNON BANK STOCK FARM

FOR AYRSHIRES AND YORKSHIRES. Young stock of both sexes for sale from imported stock.

W. H. TRAN, Cedar Grove, Ont.

AYRSHIRES FROM A PRIZEWINNING HERD

Have some nice bull and heifer calves for sale at reasonable prices. For particulars, etc., write to Wm. Stewart & Son, Campbellford Stn., Menie P.O., Ont.

Wm. Stewart & Son, Campbellford Stn., Menie P.O., Ont.

Maple Cliff Dairy and Stock Farm

Breeders of Clydesdale Horses, Ayrshire Cattle, Berkshire and Tamworth Pigs. Young stock for sale at all times.

R. REID & CO., Hintonburg, Ont.

AYRSHIRES—Choice stock of either sex, different ages, for sale. Prices reasonable. For particulars apply to N. DYMONT, Hickory Hill Stock Farm, Dundas Stn. & Tel., Clapperton, Ont.

N. DYMONT, Hickory Hill Stock Farm, Dundas Stn. & Tel., Clapperton, Ont.

MAPLE GLEN STOCK FARM

Can now offer one young bull, born last spring, and four bull calves, born in Aug., Sept. and Oct., from select cows, and sired by the great imp. bull, Sir Alta Posch Beets.

C. J. GREY & Son, Glen Buell, Ont.

AYRSHIRES for Sale—Young calves of both sexes from choice stock; also one three-year-old bull. Prices very reasonable.

D. A. JAMES, NILESTOWN, ONTARIO.



## Bone Spavin

No matter how old the blemish, how lame the horse, or how many doctors have tried and failed, use

**Fleming's Spavin and Ringbone Paste**

Use it under our guarantee—your money refunded if it doesn't make the horse go sound. Most cases cured by a single 5-minute application—occasionally two required. Cures Bone Spavin, Ringbone and Sidebone, new and old cases alike. Write for detailed information and a free copy of Fleming's Vest-Pocket Veterinary Adviser

Ninety-six pages, durably bound, indexed and illustrated. Covers over one hundred veterinary subjects. Read this book before you treat any kind of lameness in horses.

**FLEMING BROS., Chesham, Ontario**  
45 Church Street, Toronto, Ontario

## AYRSHIRES

The famous Redford Herd at St. Anne de Bellevue, Que., now owned by Sir William C. Macdonald.

Several yearling bulls for sale; also a number of bull calves. Quality and appearance extra good, bred from the best milking strains, noted for robust constitution and large teats.

For particulars apply to

**MACDONALD COLLEGE**  
St. Anne de Bellevue, Quebec.

## AYRSHIRES and YORKSHIRES

An August, 1904, bull of a choice dairy strain. A March, 1905, bull calf, very stylish, a winner. Several young calves of good breeding; cheap to quick buyers.

Some real good 2-year-old heifers in calf. Orders booked for young pigs. Correspondence solicited.

**ALEX. HUME & CO., Menie P. O., Ont.**

## Ayrshire Bulls

For Sale 12 Ayrshire bulls one to two years old. Bred from deep milking stock, both by sire and dam. Price reasonable. Correspondence and inspection solicited.

**W. Owens, Monte Bello, Que.**  
Riverside Farm,

## AYRSHIRE BULLS FOR SALE

One 5-year-old bull, 3rd-prize winner at Central Canada Exposition; one 2-year-old bull, 1st-prize winner at Central Canada Exposition, and one bull calf, 19 months old, 3rd-prize winner at Central Canada Exposition. These bulls are fit to head any herd in Canada. Terms reasonable. Write

**A. KENNEDY & SON, Hillview Stock Farm, Winchester Stn., C. P. R. Vernon, Ont.**

**Holyrood Production 70785**, is offered at the small fee of \$5 to a limited number of approved bitches for a short time. Send for stud card. Free. **R. E. CLARK, Glenora Farms, West Lorne, Ont.**

## SOUTHDOWN SHEEP

Sale by auction of the whole of the world-renowned prizewinning flock of pedigree registered Southdown sheep, the property of EDWIN ELLIS, Esq., Summersbury, Guildford, Eng., by STRIDE & SON, on

**WEDNESDAY, AUG. 8th, 1906**

For the last 20 years the sheep from Summersbury have been shown both at home and abroad with unparalleled success, over £4,000 in prizes having been won, and the forthcoming final dispersal of the flock affords an unique opportunity to foreign breeders to obtain some of the finest specimens of Southdown ewes and rams in the world. Commissions carefully executed.

**STRIDE & SON, Auctioneers, Chichester, Sussex, Eng.**

## Kent or Romney Marsh

### ANNUAL RAM SALE.

The annual show and sale of registered Kent or Romney Marsh rams, consisting of selected specimens from the leading flocks of the breed, will be held on

**FRIDAY, SEPT. 28, 1906, at Ashford, Kent, England.**

Catalogues and full information from

**W. W. CHAPMAN,** Secretary, Kent or Romney Marsh Sheep Breeders' Association, Mowbray House, Norfolk Street, Strand, London, England, W. C.

## The Bacon Hog in Quebec.

There are in Montreal three well-equipped pork-packing plants, and these, with a similar plant at Hull, have a capacity of over seventeen thousand hogs per week. According to the statements of the proprietors of these, not more than 200 hogs per week are received at the factories from the Province of Quebec, and of these not more than 100 are fit for the production of bacon of a sufficiently high quality for the export trade.

During the past fifteen years, Canada's bacon industry has grown very rapidly. In 1890, there were marketed through the packing houses of the Dominion about 100,000 hogs. Last year this number had been increased to over one and one-half millions. Quebec, however, has received little or no benefit from this enormous trade. In the past five years, not more than fifty boxes of export bacon, all told, have gone from the farms of the Province. These, according to the present prices for bacon, have a valuation of not more than \$2,500, or \$500 per year. Compared with Ontario, this is not worth mentioning. In Ontario, we find that the export of bacon for the five years just past has been worth fully fifty million dollars, or ten million dollars per year. Why there should be such a difference between the hog production of the two provinces is difficult to understand: Quebec is probably better suited for hog-production than Ontario. The coarse grains are as cheaply and as easily raised. The land is well adapted to the growing of fodder crops suitable for hogs, and, in addition to this, the dairying of the Province, which constitutes a large proportion of the agricultural practice, is largely confined to creamery work, which provides large quantities of skim milk and buttermilk, than which there is no better feed, especially for growing hogs.

A visit to the markets of Montreal, at which hogs are received and sold, will give one a fair idea of the sort of hog raised in the Province of Quebec. As a rule, the animals offered are well fattened, but many do not exceed 75 to 125 pounds in weight. These are intended, perhaps, more particularly for the local butcher trade, but, according to our produce merchants, hogs of the ideal bacon type, which have been given a chance to grow, and have reached a weight of about 200 lbs. at an age of 7 or 8 months, are quite as acceptable to the local trade as the lighter fatted class.

The practice in the Province of Quebec seems to be to keep the growing hogs closely housed, feeding them largely upon grain. This method is not conducive to the best thrift of the animals, and, therefore, does not tend to the profitable production of pork. On the farms in Ontario, where money is being rapidly made from hog-production, we find that growing animals are not only given a fair amount of exercising space in the winter, but they are pastured in fields during the summer. When housed, it has been found by carefully-conducted experiments that the most profitable returns for food consumed are received when the ration consists of fifty per cent. each of grain and some sort of forage crop, such as roots, rape, clover, vetches, etc. When fed on such a ration, rapid growth and a thrifty condition are secured, enabling the animals to make the best use of the feed consumed during fattening period.

I understand also that it is the practice of a large number of Quebec farmers to wean the litters at from four to six weeks old. The most up-to-date and progressive breeders in Ontario have learned that it pays best to allow the young pigs to run with the dam until they are quite eight weeks old, and it is not uncommon to find unweaned litters at nine and ten weeks of age. When this is done, the mother generously fed, and the litters are given access to a pen in which they can learn to feed, the weaning period is never a source of set-back to the young animals, and they gain in size and thrift without any intermission.

I have referred to the value of milk as a feed for growing pigs. It has been found that milk is most valuable when fed in the proportion of three to six pounds of milk to each pound of grain. When mixed grains are worth \$1 per cwt., skim milk, fed at the rate of 2

lbs. per day, is worth 54c. per cwt.; at the rate of 3 lbs. per day, 31c. per cwt.; at the rate of 5 lbs. per day, 18.6c. per cwt.; and at the rate of 17.1 lbs. per day, is worth only 11.33c. per cwt.

By using foundation stock of the bacon breeds and type, and rearing their offspring as outlined, there is no reason why pork, even for local consumption, should not be more satisfactorily and more cheaply produced than the shorter, smaller type of pig, now so generally raised in the Province. In addition, the hog of the bacon type is qualified for the export bacon trade, which is yearly increasing in proportion to the suitability of our animals for that trade.

To go on raising the thick, fat hog of short dimensions is to compete with the corn-fed American pork which can be produced in the United States much more cheaply than we can ever hope to do in Canada. To depart from that class, taking up the ideal bacon breeds and type, is to enter the field with the Banes and the Irish, and for this class of bacon there is an ever-increasing demand in the British market.

J. B. SPENCER,  
Acting Live-stock Commissioner.

[Note.—In view of the foregoing, and by reason of the representations, the Montreal packers' sales of pure-bred hogs were arranged during the latter part of March and the first week in April at Huntington, Cowansville, St. Hyacinthe and Joliette, under direction of Mr. Spencer, with a view to stimulate the purchase and breeding by the Quebec farmers of the bacon type of hog.]

## BEGIN WITH A SMALL FLOCK OF SHEEP.

It seems to be an exceedingly easy thing for Canadians going to the United States to get titles and dubs of one sort and another. In a recent issue of a Minnesota exchange, we notice a half-tone presentation of "Hon. Andrew Elliott, of Galt, Ont." in connection with a full report of an address Mr. Elliott delivered before the State Agricultural School, at St. Anthony Park, Minnesota. The address, it may be remarked was a good one, with some naive philosophy.

Here is an extract: "About the breed,—it is usually said to keep the kind you like best. To a certain extent that is correct, but I like to correspond with what will fill my pocket. It is rightly said that no man should marry for money, but for love. That is true, but bear in mind, my young friend, that it is just as easy to love a young lady with a good bank account as one without shoes to her feet, and it is a good deal more convenient. (Tremendous applause.)

The market calls for a sheep with a dark face and legs, and a close fleece is an advantage also. There never has been a time when a fair profit could not be obtained from the keeping of sheep. There are in the world to-day ninety million fewer sheep than twelve years ago, and the consumption of mutton and wool is rapidly increasing, hence it is safe to conclude that sheep to the farmer is a safe proposition. Do not start on a large scale; begin low and work up. The Western farmer does not like to do this, and you are no exception. You have never planted the apple because you did not expect to stay to eat the fruit. You must rush on and do big things. Do you know that in the animal as well as in the vegetable world, rapid growth means rapid decay. Plant this live-stock business, and give it time to strike its roots deep down, and after it is fairly rooted, allow the top to grow.

In the Red River Valley some time ago at an Institute meeting a gentleman came forward after the meeting and said to me: "I am convinced you are right, and I am going into sheep. I will, this spring, buy 1,000 ewes, and make it go." I asked, "How many sheep have you now?" "Oh," he said, "I never owned a sheep in my life." My reply was, "You will fail in all probability, and leave the business in disgust. Begin low; a dozen ewes, just ordinary ewes, strong and vigorous, and mate them with a good ram—a good one, and stick to the same breed." What breed, you ask? The Shropshire, Hampshire or Southdown will, any of them, give a good return. The market is steady for sheep products.

## CURED HIS WIFE of LA GRIPPE

Quebec Man tells how the Great Consumptive Preventative was an all-round Benefit

"My wife took La Grippe when she was in Ottawa," says R. N. Dafeo of Northfield Farm, Que., in an interview. "She got a bottle of Psychine and after using it for a few days she was quite well. I took a cold and am using it and am getting all right, I think Psychine is one of the best tonics on the market to-day."

There you have the whole matter in a nutshell. La Grippe and colds are among the forerunners of consumption.

This man had one, his wife had the other. Psychine not only cured both but it built them up so that their bodies are strong enough to resist disease. All seeds of consumption are killed by

## PSYCHINE

(Pronounced Si-keen)

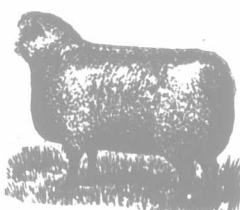
## 50c. Per Bottle

Larger sizes \$1 and \$2—all druggists.  
**DR. T. A. SLOCUM, Limited, Toronto.**

## Shropshire & Cotswold Sheep

SCOTCH SHORTHORNS and

CLYDESDALES



Choice ram and ewe lambs. Also 50 shearing ewes for sale. Apply to

**JOHN BRIGHT,**  
Myrtle Station, Ontario.

## COTSWOLD SHEEP

From one of the largest breeders in the home of the breed. We have bred the prizewinners at the leading English shows. Address:  
**W. HOULTON, Broadfield Farm, Northleach, Glos., ENGLAND; or S. HOULTON, Calgary, ALBERTA.**  
Canadian representative.

## SOUTHDOWNS

Having sold short, I am now booking orders for future delivery of show and breeding flocks.

## COLLIES

At Stud, Holyrood Clinker,  
Just imported. Fee \$10.00.

**Robt. McEwen, Byron, Ont.**

## Lincolns are Booming

We have only a few more ewe and ram lambs and breeding ewes for sale. We have seven choice young bulls, Scotch-topped, and a grand lot of heifers and young cows for sale at reasonable prices. Write or come and see us.

**F. H. NEIL & SONS,**  
Telegraph & R.R. station, LUCAN, ONT.

## Sheep Breeders' Associations.

American Shropshire Registry Association, the largest live-stock organization in the world. Hon. John Dryden, President, Toronto, Can. Address correspondence to MORTIMER LEVING, Secretary, Lafayette, Indiana. om

**Leicester Sheep**—Choice ram and ewe lambs; also a few yearlings for sale. For particulars write to **CHAS. F. MAW,** Milton Stn. and Tel. **Omagh P.O.**

## GOTSWOLDS

Some good shearing ewes and ewe lambs, and a few choice ram lambs, right type, for sale. Prices moderate.

**E. F. PARK, Burgessville, Ont.**

## Seed Grains and Dorset Horn Rams

Emmer and Tarter King oats. All grains well cleaned. Write for samples and prices.

Glenair Farm, **JAMES DICKSON, Orono, Ont.**



WIFE  
GRIPPE

the Great Con-  
ative was  
enefit

when she was  
of Northfield  
"She got a  
using it for a  
I took a cold  
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QUESTIONS AND ANSWERS.  
Miscellaneous.

DOMINION MINISTERS OF AGRICULTURE.

Please publish the names of the Dominion Ministers of Agriculture since confederation.

C. M.  
Ans.—Hon. J. C. Chapais, P. C., from 1st July, 1867, to 15th November, 1869; Hon. C. Dunkin, D. C. L., Q. C., from November 16th, 1869, to October 24th, 1871; Hon. J. H. Pope, from October 25th, 1871, to November 6th, 1873; Hon. L. Letellier de St. Just, from November 7th, 1873, to December 14th, 1876; Hon. C. A. P. Pelletier, from January 26th, 1877, to October 16th, 1878; Hon. J. H. Pope, from October 17th, 1878, to September 24th, 1885; Hon. John Carling, from September 25th, 1885, to December 4th, 1892; Hon. A. R. Angers, December 5th, 1892, to July 11th, 1895; Hon. W. H. Montague, from December 21st, 1895, to January 6th, 1896; Hon. D. Ferguson (acting), from January 7th, 1896, to January 14th, 1896; Hon. W. H. Montague, from January 15th, 1896, to July 12th, 1896; Hon. S. A. Fisher, the present Minister, sworn in on July 13th, 1896.

BUFF ROCKS.

A reader asks: "What are the Buff Rocks derived from, are they a general utility breed, and where can I get some of them?"

Ans.—The Buff Rocks have practically the same qualities as the Barred and White varieties; that is to say, we would call them a fairly-hardy, general-purpose, brown-egg breed. They are medium in size, the cock bird weighing nine and a half pounds, and the cockerels, eight pounds; hens, seven and a half, and pullets, six and a half pounds. They are one of the best general-purpose breeds that we have. The Buff variety are not grown to as great an extent as the Whites and Barred. The Barred, being the oldest, is the most popular.

Plymouth Rocks would be considered good sitters and good mothers, and among the best winter layers, and particularly if bred in line for this purpose. As to the origin of the Buff, I am not sure that anybody knows exactly how they came about. There was, undoubtedly, some Barred Rock blood used, possibly some blood from the chickens in the State of Rhode Island. I have no information at hand at the present time that I would care to say is absolutely correct, hence, I do not care to write much about the exact origin of the breed. They have very much the same characteristics as the Barred Rocks, only are not nearly so popular. In the East here, the Buff Orpingtons seem to be supplanting the Buff Rocks. Buff Rock breeders should advertise.

W. R. GRAHAM.

TWITCH OR COUCH GRASS

We have a field of twelve acres badly overrun with twitch grass, to such an extent as to interfere with growing crops. Soil is clay loam, in good heart. Have been fighting this weed for ten years by summer-fallowing, but the weed is gaining ground, especially in a wet season, like 1905. Could any reader of "The Farmer's Advocate," who has had experience with this weed, give their method? Would seeding with lucerne tend to choke it out? Field was plowed last fall.

A. B. M.

Waterloo Co., Ont.  
Ans.—We think that if you had summer-fallowed faithfully with cultivator having wide, sharp teeth and never used the plow, you would have conquered the twitch or couch grass. Persistent surface cultivation will kill the worst weed yet known. We fear that lucerne, which takes time to get thoroughly established, would not be effectual. The plan recommended is to plow lightly right after harvest, then harrow well, and rake off the roots with sulky rake and burn. Repeat the harrowing, raking and burning as often as possible during fall. In July before winter, rib up into drills, giving frost a chance to help kill root. The following season it may be summer-fallowed, but instead of a bare fallow sow with buckwheat, whose rank growth will help to smother out the weed, and it can, while in bloom, be turned under, or the land may be kept cultivated until rape is sown in June or July. This crop, if sown in drills, and kept clean as long as possible, is highly spoken of as a smothering crop for couch grass.

T. B.



HOW I CURE WEAK, PUNY MEN  
WITHOUT COST UNTIL CURED

Give me men broken down from hard work or worry; from any cause which has sapped their vitality. Let them follow my advice for three months and I will make them as vigorous in every respect as any one of their age.

I will not promise to make a Hercules out of a person who was never intended by nature to be strong and sturdy. Even that person I can make stronger, but the person who has been strong and has lost strength I can make as good as they ever were.

A man who is nervous, whose brain and body are weak, who sleeps badly, awakes more tired than when he went to bed, who is easily discouraged, inclined to brood over imaginary troubles, who has lost ambition and energy to tackle hard problems, lacks the animal electricity which Dr. McLaughlin's Belt supplies. The whole force of vitality in your body is dependent upon your animal electricity. When you lose it in any manner my Belt will replace it, and cure you.

Dr. McLaughlin.—Dear Sir: When I purchased the Electric Belt from you about six years ago, I was then suffering very much with sciatica in the hip. When I began to wear the Belt it acted like a charm. The Sciatica left me, and to-day I am entirely free from it. I also suffered with costiveness, and had for years been taking medicine to keep my bowels right. Since wearing the Belt I have scarcely ever taken any medicine for that cause, and I can confidently recommend your Belt to any one suffering as I was.—D. F. KNIGHT, Central Kingsclear, York Co., N.B.

Letters like that tell a story which means a great deal to a sufferer. They are a beacon light to the person who has become discouraged from useless doctoring. I get such letters every day. My Belt has a wonderful influence upon tired, weak nerves. It braces and invigorates them; and stirs up a great force of energy.

I make the best electrical body appliance in the world, having devoted twenty years in perfecting it. I know my trade. My cures after everything else has failed are my best arguments. Give me a person with pains in the back, a dull ache in the muscles or joints, "come and go" pains in the shoulders, chest and side, Sciatica in the hip, Lumbago, Rheumatism or any ache or pain, and my Belt will pour the oil of life into the aching body and drive out every sign of pain. No pain can exist where my Belt is worn.

Dr. McLaughlin.—Dear Sir: I take this opportunity of letting you know the benefit your Belt has given me. I was a poor cripple before I got it; now I can stoop and pick up a pin with ease. It was worth a great amount of money the good it has done me. My advice is that no home should be without one. I thank you for the benefit it has done me.—Yours truly, PHILIP MCGAHEY, Riviere aux Pins, St. Gabriel P.O., Que.

They come every day, from everywhere. There is not a town or hamlet in the country which has not cures by Dr. McLaughlin's Electric Belt.

The confidence I have in my remedy enables me to make the offer I do, and any man who will give me reasonable security while he uses my Belt need not pay a cent until he is cured.

Now, what does this mean to you, dear reader? If you are not what you ought to be, can you ask any better proof to make you try it? If there is a remedy which is as simple, as easy to use, as sure to cure, and as cheap as Dr. McLaughlin's Electric Belt, I have not seen one. You must try it. In justice to yourself and to those who look to you for their future happiness, try it now. Act this minute. Such a matter ought not to be delayed.

It's as good for women as for men. Worn while you sleep, it causes no trouble. You feel the gentle, flowing heat from it constantly, but no sting, no burning, as with old style belts.

Write To-Day for My Free Illustrated Book and Full Information.

**CALL TO-DAY**

If You Can't Call Send  
Coupon for Free Book

**Dr. M. S. McLaughlin,**  
130 Yonge Street, Toronto.

Send me your Free Book, closely sealed, and oblige,  
NAME .....  
ADDRESS .....  
Office Hours—9 a.m. to 6 p.m.; Wednesday and Saturday till 9.00 p.m.  
SUNDAY 10 a.m. to 1 p.m.  
Write Plain.

**DORSET HORN SHEEP and SCOTCH SHORTHORNS**

The latter representing the Nonpareil, Miss Ramsden, Missie and Gloster families exclusively, and the former comprising more Royal winners and more St. Louis prizewinners than any other flock in the world. Stock for sale always on hand.

**JOHN A. MCGILLIVRAY,**  
North Toronto, Ontario.

Oxford Down Sheep, Shorthorn Cattle, Yorkshire Hogs.

Present offering: Lambs of either sex. For prices, etc., write to **John Cousins & Sons,** Buena Vista Farm, o Harriston, Ont.

**BROAD LEA OXFORDS.**

Present offerings are 28 ranch shearing rams, seven shearing ewes, one show ewe four years old. Will also book orders for ewe and ram lambs from imported ram.

Correspondence promptly answered.  
Visitors always welcome.

R. R. Stations:  
Mildmay, G. T. R.  
Teeswater, C.P.R.

**W. H. ARKELL,**  
Teeswater, Ont.

**SHROPSHIRE**

Shearing ewes and rams for sale.

**GEO. HINDMARSH,** Alisa Craig, Ont.

**100 Shropshires 100 & Cotswolds 100**

One hundred head for sale. Ten shearing rams, fifty ram lambs, and sixty shearing ewes. Rams are good enough to head any flock. The ewes are a choice lot and will be bred to imp. ram.

**John Miller, - Brougham, Ont**

**Sheep and Cattle Labels.**  
If you are putting stock out this spring you will need them. Sample and circular free.  
**F. G. JAMES,** Bowmanville, Ont.



**The "STAY THERE"**  
**Aluminum Ear Markers**  
 are the best. Being made of aluminum they are brighter, lighter, stronger and more durable than any other. Fit any part of the ear. Nothing to catch on feed trough or other obstacle. Your name, address and any series of numbers on each tag. Sample tag, catalogue and prices mailed free. Ask for them. Address  
**WILCOX & HARVEY MFG. CO.**  
 104 Lake St., Chicago, Ill.

**NEWCASTLE HERD OF Tamworth Swine and Shorthorn Cattle**  
 Still have a lot of beauties to offer in Tamworths of both sexes, from 2 months to 2 years old; a half-dozen March sows that will be bred in October and November. All for sale at moderate prices. Also four young Shorthorn bulls ready for service, and a half-dozen beautiful heifers.

**COLWILL BROS., Newcastle, Ontario.**

**Mount Pleasant Herd of Tamworths and Holsteins.** A large herd of choice pigs of all ages on hand. Mount Pleasant type of hogs are profitable breeders and ideal bacon hogs. Pairs not akin. Herd headed by Colwill's Choice No. 1348. Won sweepstakes and silver medal at Toronto, 1901-3. Also a few bulls.

**Bertram Hoskin, The Gully**

**ORCHARD HOME HERD OF LARGE ENGLISH YORKSHIRES**  
 Now on hand, Feb. 8th: A choice lot of boars and sows, 3 to 4 months old. We furnish stock of most approved type and high quality. Our record for 1905: Every customer pleased and satisfied. Place orders now for spring pigs. Address,  
**S. D. CRANDALL & SONS, Cherry Valley, Ont.**

**Large White Yorkshires**  
 A choice lot of young boars ready for service, young sows ready to breed, and young pigs all ages; all direct from imported stock of choice quality.

**H. J. DAVIS,**  
 Importer and Breeder of Shorthorns & Yorkshires  
**G.P.R. and G.T.R. Woodstock, Ont.**

**RIVER VIEW FARM**  
**ROBERT CLARKE**  
 Importer and Breeder of  
**Chester White Swine**  
 Pigs shipped not akin to each other. For price and particulars, write  
**41 Cooper Street, OTTAWA, ONT.**

**GLENHODSON YORKSHIRES AND POULTRY.**  
 Sows bred or ready to breed, from choice imp. stock, also young pigs, for sale. Buff Orpington, B. P. Rock and White Wyandotte eggs for hatching at \$1 for 15.

**GLENHODSON COMPANY, Myrtle Station, Ont**  
 Long-distance phone at farm. Lorne Foster, Mgr.

**Glenburn Herd of YORKSHIRES**  
 Now on hand, a number of sows, 5 and 8 months old, for spring farrow; also a large number of September sows and boars. Booking orders for spring pigs, o.

**DAVID BARR, JR., Box 1, Renfrew, Ont.**

**CHESTER WHITE SWINE**  
 Shropshire Sheep and Mammoth Bronze Turkey Eggs. Write for prices.  
**W. E. WRIGHT, - Glenworth, Ont.**

**YORKSHIRES**  
 Two grand (imp. in dam) sows, bred to farrow in June, to a show boar; also a young litter ready to ship in April. Orders booked ahead and satisfaction guaranteed.  
**L. HOOEY, P.O. Corners P.O. Fenelon Falls Station**

**For Sale**—Ohio Improved Chester Whites, the largest strain, oldest established registered herd in Canada; young sows in farrow; choice young pigs, six weeks to six months old; pairs not akin; express charges prepaid; pedigree and safe delivery guaranteed. Address:  
**E. D. GEORGE, Putnam, Ont.**

**Yorkshire Boars**  
 We are offering weighing 40 lbs. at \$7 each, registered, f. o. b. cars. Three yearling Shorthorn bulls, good breeding and colors, at \$75, registered, f. o. b. cars.  
**W. R. BOWMAN, Mt. Forest, Ontario.**

When Writing Please Mention this Paper

**BERKSHIRES**  
 Imported and Canadian-bred  
**H. M. VANDERLIP, Cainsville,**  
 on T. H. & B. and B. & G. division of Grand Trunk. Telephone and telegraph, Cainsville, Ont.

**HILLCREST HERD OF ENGLISH BERKSHIRES**  
 For Sale: A lot of very choice young things of various ages. We prepay express charges and guarantee satisfaction. Enquiries promptly answered.  
 Vine Sta., G. T. R., near Barrie. **JOHN LAHMER, Vine P.O., Ont**

**QUESTIONS AND ANSWERS. Miscellaneous.**

**OWNERSHIP OF MISS BAKER.**  
 Can you give me the address of the present owner of the Hackney mare, Miss Baker, imported by Senator Cochrane?  
 Ans.—The last owners of which we find record were D. & O. Sorby, Guelph, Ont.

**WORMS IN BARN TIMBER.**  
 Can anything be done to stop pinworms from working in the beams and overlayers of an old stable? The timber is elm and basswood. J. S. L.  
 Ans.—We cannot answer from experience, but would remove all bark, brush the timber with a stiff broom, and apply Zenoleum with a spray pump, or crude petroleum with a stiff brush or broom.

**COW BLOATING—CONSTRICTED TEAT.**  
 1. Have a cow with an exceedingly bloated paunch. Seems to be in a healthy condition, eating heartily, etc.; is being fed bran mash, best of hay, and potatoes, also a little sweet nitre.  
 2. A healthy cow has a teat almost blind. It can scarcely be milked, and takes a long time to do it.

**SUBSCRIBER.**  
 Ans.—1. If the bloating is caused by gas in stomach, give one quart raw linseed oil and 2 ounces spirits turpentine.  
 2. We would try inflating the quarter with air, using a teat tube and a bicycle pump, and massaging well with the hands while filled with air.

**CARBOLIC ACID FOR MARES.**  
 Mare, eight years old, raised a colt when five years old; missed one year; bred again next year, and got with foal, but aborted at about nine months; was bred again in about two and a half months after abortion; got in foal, and lost it about same time as previous year. Foal was living up to almost time of abortion, hared over, and quite fully developed; mare in good, healthy condition, and working every day, fed on good timothy and clover hay (mixed) and oats and a little bran (mixed). This is quite a common occurrence in this county, as mares that are never harnessed or away from home do the same thing, and about seventy per cent. of foals have been lost in this way for the last two years. Would the carbolic-acid treatment, recommended by Mr. Rice for cows, apply to a mare as well?  
 A. M.

Ans.—Abortion is, no doubt, caused by various occurrences, such as injury from a blow, slipping, etc., but the most general cause given, and the one that appeals to me as the most reasonable, is that the life-cord is attacked by a germ or becomes diseased, and it is upon this theory that carbolic-acid treatment has been used in the case of cows, and with very great benefit. In this regard, it is a preventive, rather than a cure, and, as such, must be given in time. A certain amount of discharge comes from pregnant females when well advanced. It is the color of this discharge that warns the experienced stockman. When this discharge is clear, the organs are healthy, but when yellow or putrid-looking, look out for trouble. In the case of mares not getting sufficient exercise, the urine is often a bad color. This can be helped by giving moderate doses of sweet nitre. If that does not correct it, it will certainly do no harm to give a mare 20 drops of carbolic acid twice a day for a few days, and repeat later on. The mares will be greatly benefited after losing their foal by having their system cleared out by doses of carbolic acid. If the carbolic-acid treatment is able to, in a short time, remove all unhealthy discharge in mares, it will certainly be efficacious in preventing abortion. Necessarily, our opportunity to see the effect of treatment of mares is limited, but I believe truly that if mares are given doses of carbolic acid, say a month before they are to be bred, and eight or nine months after they are in foal, more will get with foal and have healthy colts.  
**GEO. RICE.**

**TROUBLE WITH CREAM.**

We have been having trouble with our butter lately. The cream seems to froth up, and, after churning a long time (sometimes as long as two hours), the butter comes, but we cannot separate it from the milk. It is very fine, like sand, and is very frothy. We keep the milk in creamers. The cows are fed on prairie hay, have good spring water, and are salted regularly. C. R. Alta.

Ans.—The trouble with your butter is due to the condition of your cream at the time of churning. Your cream is too thin and too cold, two conditions which are invariably sure to produce the trouble you mention. When cream is thin, the fat globules are more scattered and do not strike together so often in the process of churning, consequently a longer time is required in churning. If the cream is very thin, the fat may gather in small granules, and, no matter how much additional churning is done, they do not seem to enlarge any. When this occurs, about the only thing that can be done is to draw off a part of the buttermilk, which allows the fat globules to come together, and thus overcome the difficulty. It is better, however, to avoid such difficulties by skimming a heavier cream, say 30 to 35 per cent. fat. Cream of this quality can be churned at a lower temperature than thinner cream, thus giving a firmer and better quality of butter. The thicker the cream, the less buttermilk it contains, and, consequently, the less loss of fat. Therefore, thick cream gives not only a better quality of butter, but also a greater yield per pound of fat. The frothing of the cream is also due to its thinness, which can be easily overcome.  
**W. J. CARSON,**  
 Manitoba Agricultural College.

**SEAWEED FOR FOWLS—SKIM-MILK CURDS FOR POULTRY—EGG RECORDS.**

1. I have been using short seaweed as litter in pens of henhouses. The hens eat it greedily, seeming to prefer it to clover chaff, probably on account of its salty taste. Has it any value as food, and will it have any bad effects?  
 2. How does skim-milk curd compare pound for pound, with fresh meat as food for young and laying stock?  
 3. Are there any flocks of any size in Canada or United States where the layers average 200 or more eggs per hen? I have heard it stated that certain poultrymen in United States had flocks which averaged 250 eggs or more. Do you know if this is true?  
 4. If I bought standard-bred prize-winning poultry, would I be likely to get good laying and market birds, or are these qualities sacrificed for fine feathers and correct shape, and don't the breeders of standard-bred poultry inbreed, and, therefore, weaken the birds' constitution?  
**P. E. L. C. P.**

Ans.—1. I do not know that the litter spoken of has any value, but the salt is of some use. We consider that you can feed an ounce of salt daily to a hen with good results. The seaweed is used to some extent in the New England States, but whether it has any food value or not is a debatable point. The majority of the growers think that clover is much better food.  
 2. Skim milk curds would have more food value, pound for pound, than meat, and will produce eggs or grow young stock as good as any food known, perhaps better.  
 3. There are no flocks of chickens in Canada or the United States, that I know of, of more than 100 each, that average 200 eggs per hen. Even where the breeding has been carried on fairly systematically for five or six years, the average production per hen has not been much more than 150 eggs. There are cases on record of flocks averaging 250 eggs per hen, but the flocks are small, and the year must have been long.

4. You can get birds that are good layers, good market type, and are fair in standard qualities. The very best exhibition specimens are occasionally not so good market types as some others, but there are many examples of purebred poultry which are bred with fine points as a secondary consideration that are good in every other respect.  
**W. R. GRAHAM,**  
 Market Poultry Department,  
 Ontario Agricultural College.

**The Bad Cold of To-Day MAY BE PNEUMONIA TO-MORROW.**

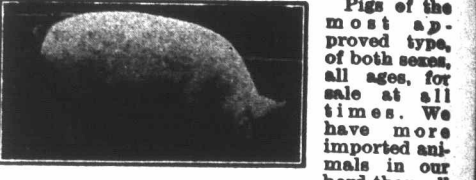
The sore throat or tickling cough that, to the careless, seems but a trivial annoyance, may develop into Pneumonia, Bronchitis, or some Throat or Lung trouble.

**DR. WOODS NORWAY PINE SYRUP**

contains all the lung-healing virtues of the pine tree, and is a sure cure for Coughs, Colds and all Throat or Lung troubles. Mrs. E. Hutchison, 186 Argyle Street, Toronto, writes: "I have been a sufferer from Chronic Bronchitis for years and have found Dr. Wood's Norway Pine Syrup far better than any of the hundreds of remedies I have used. Our whole family uses it in cases of Coughs or Colds. We would not be without it."

Don't be humbugged into taking something "just as good," ask for Dr. Wood's and insist on getting it. Put up in yellow wrapper, three pine trees is the trade mark and price 25 cents.

**LARGE ENGLISH YORKSHIRES**



Pigs of the most approved type, of both sexes, all ages, for sale at all times. We have more imported animals in our herd than all other breeders in Canada combined. We won more first prizes at the large shows this year than all other breeders combined. We won every first but one and all silver medals and Bacon prizes at Toronto and London, and at St. Louis we furnished all the first-prize hogs in the breeding classes except two; also supplied both champion and grand champions. Prices reasonable.

**D. C. FLATT & SON, Millgrove, Ont.**

**FOR SALE: IMPROVED CHESTER WHITES**

Of the long, deep, heavy sort. Breeding stock selected from the most noted families, with a view to size and quality. Booking orders for choice spring pigs; also a few fall pigs for sale. Pairs furnished not akin. Express charges prepaid. Pedigrees and safe arrival guaranteed.

**H. E. GEORGE, Crampton, Ont.**

**Morrison Yorks, and Tams,**



on hand, for sale. Are both sexes of both breeds. Bred from prizewinners and extra choice. Prices right.

**Charles Currie, Morrison P. O., Schaw Sta., C. P. R.**

**WOODSTOCK HERD OF BERKSHIRES**



A few fall pigs left, sired by Imp. Poligate Doctor. Also am booking orders for spring pigs, for which I can supply pairs not akin at reasonable prices.

**Imp. Poligate Doctor.**  
**DOUGLAS THOMSON, Woodstock, Ont.**

**Oakdale Berkshires**



Of the largest strains. Imported fresh from England. The produce of these and other noted winners for sale reasonable. Let me book your order for a pair or trio not akin.

**L. E. MORGAN, Milliken Stn. and P. O.**

**MONKLAND YORKSHIRES**

Imported and Canadian-bred. We keep 35 brood sows, and have constantly on hand between 100 and 200 to choose from. Can supply pairs and trios not akin. Quality and type unsurpassed. Prices right.

**JAS. WILSON & SONS, FERGUS, ONT.**  
 G. T. R. and C. P. R. Long-distance Phone

**Blmfield Yorkshires**

Have still a few choice young boars from Summer Hill Chester, some young sows from imp. sire and dam; also a fine lot of suckers coming on. A few sows 7 months old, bred again.

**G. B. MUMA, Ayr P.O., Ayr and Paris stations.**

**Rosebank Herd of LARGE ENGLISH BERKSHIRES**

Present offering: Choice stock from 6 weeks to 5 months old, sired by Concord Professor and Willow Lodge Crown 8th. Can supply pairs and trios not akin. Satisfaction guaranteed. Express prepaid.

**JOHN BOWEN, Jr., Churchhill, Ont.**