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# The Farmer's Advocate

## and Home Magazine

"Persevere and Succeed."

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### EDITORIAL.

#### A Fairly Satisfactory Tariff.

Press comments and expressions of opinion by certain aggressive members of the Canadian Manufacturers' Association, make it clear that the body agricultural have reason for satisfaction over the tariff recently announced by Hon. W. S. Fielding, Dominion Minister of Finance. In the revision, the principle of moderation was adhered to with a judicious inclination towards reduction. In fact, on the whole, the Government's action has accorded with the view advanced by "The Farmer's Advocate" last spring. The only exception we could take would be that, if anything, they might have gone a little further in reducing protection on some staple lines; but so far from blaming them, we are disposed to congratulate them upon having resisted so effectually the seductive appeals of ultra-protectionists. Not only is the new tariff moderate, but if the intermediate schedule can be brought into operation through overtures with other countries, the burden of taxation and protection will be still further lifted, and more favorable markets obtained at the same time for Canadian exports.

"The Farmer's Advocate" would be opposed to a high general tariff, designed as a club to persuade other nations into a reciprocal mood, but with a general tariff conceived chiefly in our own direct interests, which is the proper plan on which the country should construct its tariffs, we believe the alternative intermediate tariff to be a move in the right direction.

As for the actual changes in the general tariff, it may be pointed out that the duty on binders and mowers has been practically levelled to the basis of the old Mackenzie tariff. Indeed, it is at a point where it is doubtful whether further reduction would result in cheaper prices of implements to the farmer, while it would certainly entail loss of revenue to the Federal treasury. The inordinate and, according to the Minister's statement, the unintentionally large measure of protection formerly accorded to the sugar refiners has been pared down by raising the duty on raw sugar. This will turn extra revenue into the treasury without injuring the Canadian beet-sugar industry or permanently raising the price of refined sugar to the consumer. We believe a ruse has been attempted by the refiners, but cannot permanently succeed, because a move to do this would ultimately be checkmated by importations of refined sugar. The addition of a 5-per-cent. tariff on the principal lines of smooth wire used by our fence manufacturers, which will add slightly to the cost of fencing, is accompanied with what is regarded as a concession to the Western farmer—a continuation on the free list of barbed wire, the use of which should be everywhere discouraged.

Some capital has been made of the placing of oranges, lemons and limes on the free list, and in many sections this move is popularly commended. However, when one examines the matter, he can scarcely get away from the suspicion that this move was chiefly for effect. The Government wanted to make a noteworthy reduction somewhere, and thought this a safe place to do it. This surmise is only borne out by the labored efforts of the Ottawa correspondents of the Government organs to prove that the move would be a great benefit to the British West Indies. If there were such a motive in view, the proper action would have been to retain or in-

crease this duty, and give the British Indies the benefit of the British preference. That the removal of the duty is approved in Canada means nothing more than that reduction of duty on any article would be received with gratitude, except where there is a special interest impelled to protest. Those who believe Canada should frame her tariff in the interest of revenue, rather than protection, can scarcely approve the wiping out of a duty which is purely and simply a revenue-producing item. However, this item is of small consequence, anyway, and, on the whole, we feel warranted in expressing the general satisfaction of the agricultural community with the results of the tariff investigation and subsequent revision, barring the continuation of the bonusing system.

#### Official Testing of Pure-bred and Co-operative Testing of Grade Cows.

During the past year much has been written about the testing of dairy cows through the instrumentality of the Dominion Department of Agriculture, but we surmise there is some confusion in the public mind concerning it all. There are two distinct lines of work being carried on by two separate Branches of the Department. The Dairy Branch, under Commissioner J. A. Ruddick, has an attache, Mr. C. F. Whitley, endeavoring to stir up interest in co-operative testing of common or grade dairy cows, and assisting the co-operative associations somewhat when formed. The other line of work is being carried on by the Live-stock Branch, and its purpose is the official testing of pure-bred cows whose owners wish to qualify them for admittance to the "Record of Performance," which is a supplementary and duplicate register kept by the respective breed organizations for the registration of pure-bred cows that have, in officially-supervised yearly tests, equalled or excelled certain minimum standards of milk and butter-fat production set by the respective breed associations; that is to say, the breed organizations keep their own Records of Performance, but the Live-Stock Branch of the Dominion Government assumes the work and responsibility of the official testing.

In view of the widespread and growing interest in the co-operative testing of grade herds, and in the official testing of pure-breds, we have thought well to publish, at this stage, some fuller particulars of the work, and, under separate headings in our Dairy Department, readers will find considerable information about both lines of work.

#### The Deadly Level Crossing.

Mr. E. A. Lancaster, M. P. for Lincoln and Niagara, has, for the fourth time, we believe, introduced his bill in the Canadian Parliament for the protection of the lives of the people on level railway crossings. It proposes that, after Jan. 1st, 1908, railways must protect their crossings in the thickly-settled portions of cities, towns and villages, or else slow down. Newspaper scribes treat the subject with more or less frivolity, describing the measure as a "hardy annual," a "perennial plant," and so on. Last year the bill was incorporated in the general Railway Act, but was amputated in the Senate, that graveyard of not a little legislation in the interest of the people. Meanwhile, the railways have gone on remorselessly killing the people and destroying horses and rigs, evidently bent on making time records at all hazards. The list of these accidents during the past year has been appalling. Success to Mr. Lancaster's bill.

#### The Future of the Ontario Winter Fair.

The Ontario Provincial Winter Fair has outgrown its premises, having reached a stage where valuable educational features, such as the lectures and the judging, are contracted in their benefits by lack of accommodation; where extension of exhibits is debarred by restriction of quarters, and where the addition of new features is prohibited by the same limitation. When the present fair building was erected in Guelph, in 1900, its dimensions were deemed ample to accommodate the show for a good while to come, and, in consideration of her expenditure, Guelph was secured the holding of an annual Provincial Fair for ten years. The period has still three years to run, but in view of the present situation, and of the fact that before 1910 much larger quarters must be provided, it behooves the management, the Province and the City of Guelph to consider at once the urgent needs of this most important educational institution.

Guelph was fortunate in securing the Winter Fair, and the Fair has been equally fortunate in locating at Guelph. The proximity of the Ontario Agricultural College, the excellent stock-raising country surrounding the Royal City, its central situation and accessibility by railway from all the districts which it is intended to serve, make this the location par excellence. No disinterested person wishes to see a change. Nevertheless, there are people in Toronto, the city which likes to monopolize all good things Provincial and National, who are casting covetous eyes towards Guelph and Chicago, and wondering if they cannot get up a big winter show in the Queen City. The fact that Guelph has no accommodation for horse exhibits, gives Toronto a talking point. Then, there has been some talk about a Provincial dairy show in Toronto, independent of the fat-stock idea. Impartial opinion is that the dairy exhibition, if held at all, should be at Guelph and Ottawa, which points would be convenient of access for people of the two great dairy sections of the Province, and would give the dairymen the benefit of minimum railway rates. But this will require much room for the housing of cattle, dairy apparatus and dairy products. Then, again, the poultrymen are clamoring for two and a half or three times as much space as at present, and the wonderful growth of this department gives warrant to their claim.

The foregoing demands, together with wise provision for normal expansion of all departments, make it plain that the present area of floor space should be increased by about two hundred per cent, and that without delay, else some of the new features that might be brought here will find themselves permanently established elsewhere.

What is going to be done about it? One of the Guelph aldermen has suggested that the present building, which contains in one end the city fire hall, should all be given over to the purposes of the Fair, and the Government asked for a grant to enable the city to build a new fire hall. This, it is estimated, would cost the Province in the neighborhood of \$10,000, and the increased housing obtained would be entirely inadequate to meet the demands above specified. To forsake the present building at the expiration of the ten-year agreement would be regrettable indeed. The alternative is to enlarge it, and it happens to be so hemmed in by the streets, street-car track and G. T. railway that the only direction in which extension is possible is out on to the market square. While a certain amount of reluctance may be manifested by the citizens at seeing their square thus occupied, most of the objections van-

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1. **THE FARMER'S ADVOCATE AND HOME MAGAZINE** is published every Thursday (52 issues per year.) It is impartial and independent of all cliques or parties, handsomely illustrated with original engravings, and furnishes the most practical, reliable and profitable information for farmers, dairy-men, gardeners, stockmen and home-makers, of any publication in Canada.
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ish on consideration of the subject. A market under cover is certainly better than Nature's face, exposed to the weather, and there are many purposes to which a covered area could be advantageously devoted. We believe Hon. Nelson Monteith, Minister of Agriculture for Ontario, would be disposed to deal generously with the city in providing for the needs of the Winter Fair, and all well-wishers will join in hoping that a foresighted and liberal attitude towards this question will prevail.

### The Making of a Steer.

With the increasing population and industrial activity of northern climes like Canada and Great Britain, and the application of perfected cold storage, it is generally believed that the consumption of high-class fresh meat will increase. At the same time, the increased value of farm lands and other items in the cost of production make it necessary to consider carefully the rearing or securing of good feeding cattle at an outlay that will leave the feeder a fair margin of profit, or else, as he has done before now, he will turn to other specialties. The prospects for future cattle supplies will depend very largely upon the type of the coming cow and the sires that are used—a subject introduced for the consideration of breeders in the last issue of "The Farmer's Advocate." What does it cost to raise a stocker or feeder up to, say, two and a half years, and of finishing him in the stable or on grass, and in what ways can the outgo be so reduced as to enlarge with more certainty the margin of profit? These and other questions involved are of vital import, and this is the season of special opportunities for consideration, discussion and research, so that we may get down to facts and principles. Elsewhere in this issue we publish a number of timely contributions on this subject, upon which further correspondence from experienced cattle raisers and feeders, as well as investigators, will doubtless shed much-needed light.

### Our Maritime Letter.

Whilst the severest of winter weather, precipitated without a word of warning, and therefore felt with excessive keenness, attended the Maritime Winter Fair at Amherst this year; and whilst on this account and also on account of the presence of smallpox in adjacent mining centers, the attendance very considerably diminished, there was a sufficient patronage to gauge the public sentiment of the moment agriculturally, and, of course, the exhibits in the various departments, as might be expected, being annually improved in quality and in quantity, from this standpoint, at least, could it be called successful. Some day we may reach the Ultima Thule in the matter of quality, but that day is far ahead of us; not that we are showing inferior stock, but because the standard in all this range of animal husbandry will assuredly, in the future as in the past, with the concentrated thought and effort of men of genius in their calling upon it, evade, like the Will o' the Wisp, the pursuit of even the most ardent breeders and pastoralists. And it were well thus. Effort, a striving after perfection in any direction, is the only upward tendency in humanity. Agriculture, too, has more mysteries to be solved, more heights to be scaled by the daring than any other science, commonplace as the unthinking may regard it. It is well, then, to be reasonably aggressive.

There is, or has been, in Maritime Canada a feeling of unrest agriculturally—a bad feature in any country of life and activities. It is now somewhat familiar to most people within our borders, and, therefore, not so much to be apprehended. The glamor of the Western adventure early caught the fancy of young and old alike, the young in the early years, and latterly the staid and substantial yeomanry of the country. Population decreased; old methods even failed, profits diminished, labor became doubly onerous for the few, and discontent and dissatisfaction ran a riotous course. Then, face to face with new conditions, new energies were called into play. The farmer who sowed and reaped from mere force of habit, and left matters to attend to themselves pretty much in the interval, was surprised to awaken one fine day to a new order of things, exacting new effort, or at least something that at least might really be called effort, side by side with what he had all along put forth; he, too, lamented his lot, but in many cases because he could not go hence and to stay, even, had to arouse himself to energy, began to find that, after all, there is no ordinary obstacle in the field allotted by the Creator for our support and benefit that we cannot readily overcome and turn to immediate advantage. We have, then, fewer farmers in Maritime Canada than in 1880, fewer than in 1890, fewer than the census of 1900 gives us, but we have a new class of men entirely looming up—men who, for the most part, have put the antiquated methods and implements of the past behind them and determinedly set their faces towards the sun of surest success, which is visible in the eastern horizon.

The speeches of the public men at fairs like that at Amherst are not, as a general thing, to be too seriously considered. With them, the desire of bringing water to their own mills is ever manifest. And, sometimes in their haste to elevate, they seriously offend against the fitness of things, and are as much in place as rioters in a house of mourning. For successful assemblage, there must be a bond of sympathy between speaker and hearer, and in what he says no great disproportion of verisimilitude on either side. Then the electric circuit is complete, and flashes its cheering current all through its human content. With such conditions verified, the meeting may be called successful—the speaker is happy, and his auditors are happy to acknowledge agreeable sentiments.

We have heard the platitudes fall flatly enough before on such audiences as fill a fair auditorium. This year, it must be said that there was no overpowering feeling of disproportion. The speakers from the local Governments were assuring and hopeful in tone; the people accepted their assurances, and beheld the dawn of brighter days already before them. All admitted that the transition stage had been distressing enough, but all, or about all, saw its ending and the beginning of a fixed and satisfactory state of rural prosperity for the Eastern Provinces. Happily, there was nothing out of focus with this view introduced, and we are confident that for once public men have interpreted feeling well, and used

discernment. Governor Fraser is a clever speaker—no mere functionary, as are so many Governors, but a man who has given thought and study to the agricultural as well as the industrial side of his country's calling, and can not only note the changes going on about him, but points the way effectually to the acquisition of better things. He is not satisfied with sharing the conviction that there is a good time coming, either; he feels it as surely as if it were a reality, and communicates his feeling to his hearers. Agriculture will have in him a friend. Governors, as patrons, can do more than most democrats are ready to admit to help the good cause forward. The other politician speakers we might pass by, but Premier Murray, also of Nova Scotia, which is perhaps the least dependent on and best supporter of agriculture in these three divisions, came out flat-footedly in support not only of the ordinary departmental largesses to that interest, but also in the more ambitious work of a central directory of higher education at Truro. He said that there might be differences of opinion as to the political union of the Provinces; to his mind, there could be none of the necessity of one good strong and efficient educational center for agriculture, and his hand was therefore extended to the other divisions to participate in Truro's present advantages, and his lips formed constantly the piercing Macedonian cry, "Come over and help us to make these greater." The perfect agreement of all present seemed to stamp this sentiment as thoroughly Maritime. We have always been friendly to it, for our own part; and whilst the Federal Department is now contemplating the establishment of an Experimental Station in our own Province, at a considerable cost, we think that this will only assist Truro, and not at all, as some contend, supplant it in our regard. Experimentation may be everywhere made; the educational centers can only be successful where properly equipped, administered and patronized.

This much of the general note of hopefulness pervading the public utterances at the fair; of its special features, and the lessons to be carried home and applied to every farmer's work, we may have a word later.

A. E. BURKE.

### Farmers the Salt of the Earth.

After all, there is no place like the farm, and no people like farmers. The more intimate one's acquaintance with city folk, their ways, their humdrum work, the unwholesome slavishness of shop life, their fettered existence, their sordid, frivolous and hollow ambitions, and their more or less brilliant but often superficial mentality, the more exalted is his opinion of the genuine, simpler but nobler traits of rural character, born of natural environment, and strengthened by a wholesome, self-reliant occupation which demands the best that is in us. Country people may lack gloss and versatility, but for sound moral fiber, general capability and practical common sense, commend us to the product of the Canadian farm.

### Advance.

The gospel of agriculture must be progressive. It is not enough to disseminate the best methods in vogue and the best ideas now held. This must be done, but we must also do more. We must seek better methods than any yet practiced, a more advanced philosophy than any now extant, while still striving to make the exception of today the level of to-morrow's average achievement. An individual or an industry which fails to keep pace with the quick-march of the times is relatively falling back. Agriculture cannot afford to fall behind other industries. Let us press ever strongly to the fore.

### A Piratical License Denied.

To the victors belong the spoils, is an old slogan with which conquerors in war and politics have ever defended indulgence of their greed. But in the clearer light of this age the public is strongly asserting the principle that to the victors belong not a vestige of the spoils, and he who would appropriate them is a robber of the people and a traitor to his trust.

### Likes It Better than Ever.

I enclose a post-office order for \$1.50, my renewal subscription to "The Farmer's Advocate." I have been a subscriber for almost thirty years, and feel less inclined than ever to do without "The Farmer's Advocate."

M. J. GIBSON, N. B.

ANDREW GIBSON.

I will question of the inspection tion will at the half of are of it would bred ho and con nose i or the as it gi that I v low far be doing the farm choose t brother from yo to repea judge fo ly. As own into Oxford

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HORSES.

Don't Want a Stallion Inspector.

Editor "The Farmer's Advocate":  
I will give you my views on this important question. I think the Government is taking hold of the wrong end of the rope in this stallion-inspection business because they don't start inspection with the stallions that are being imported at the present time. I may safely say that one-half of the stallions that come to our section are of a very inferior type of a Clyde horse, and it would be an injustice to bar a good Canadian-bred horse because he had no registered pedigree, and compel us to use the imported scrub. Now, whose interest is this act in favor of—the importer or the farmer breeder? Certainly the importer, as it gives him a clear road. I may safely say that I voice the feelings of nine-tenths of my fellow farmers in this section, that the act would be doing a great injustice to them. I think that the farmer of the present day is well able to choose the sire that he wants for himself. Now, brother farmers, this is the time to let us hear from you, for if the act is once passed it is hard to repeal it. If you think that you are able to judge for yourself, speak up now and speak plainly. As for myself, I think I can look after my own interests without the help of any inspector.  
Oxford Co., Ont. WM. McINTOSH.

Spurious Pedigrees and Un-sound Horses.

Editor "The Farmer's Advocate":  
I have been reading a number of articles in your paper relating to stallion inspection and lien act. I approve of the stallion-inspection act. I think it is a step in the right direction. I am opposed to the lien act. I think the stallion man should look out for himself. We are in need of a few good Clydesdale stallions in this county. Too many unsound horses, or horses of unsound ancestry, are allowed to be used as stallions. If "Haldimand Farmer" will tell us how to get at the ancestry of those stallions without some way of inspection, we would like him to do so; other stallions have stolen pedigrees. Farmers will not take the trouble to find out about ancestry or pedigrees of stallions. They look at the general appearance and style of the stallion, and often raise a colt up to three years that will not sell for the cost of raising because the services can be obtained for a very small fee. I have often noticed at our fairs a class of horses called "agricultural" or "general-purpose," which are nothing but mongrels, and which, I think, are the worst class of horses we have. If the farmers would breed their best heavy mares to some pure-bred Clydesdale stallion when the colts reach three or four years old, they can be sold readily at from \$150 to \$200. I am not the owner of a stallion, but I am anxious to see farmers raise horses that will sell.  
Leeds Co., Ont. W. J. MALLORY.

A G'engarry Horseman's View.

Editor "The Farmer's Advocate":  
You are desirous of getting the views of horse-men regarding the Government inspection and licensing of horses. The move is a very good one in some respects. I think, however, that the farmers of Eastern Ontario have studied the breeding of horses to such an extent that they should be able by this time to judge very nearly what kind of a horse is most useful to them in their occupation in life. I would like to ask the farmers of Eastern Ontario what kind of horses did the British Government require during the South African war, and even this fall what kind were the representatives of the Home Government looking for? How many did they get when buying in Montreal? Was it not the strong, blocky-built horse they required? For myself, I have gone as far as thirty miles to breed to a good horse, and have been very much disappointed in what I have received for my trouble. Now, I think that horsemen would take advantage of the service if licensing horses would come into effect. For carriage use, I have always liked the Standard-bred horse or the Hackney. I have used several, some standing 16 to 16.1, and have bred to others 15.2, receiving very good results. I see in a letter that a gentleman wishes to cut out three different breeds. I think this would be a big mistake to the farming public. As it is, there are very few horsemen who keep up-to-date sires, and as we are not all millionaires and cannot afford to pay the high fee that the Government might think we should, this should be left to the farmers' own judgment. I have been buying and breeding for 32 years, and have always been looking for the good ones.  
Glengarry Co., Ont. NORMAN OXLEY.

The world needs men who see clearly with unbiased vision, men who fear nothing and hesitate not to pierce the mail of self-complacency with which mankind is prone to surround itself; men whose unflinching purpose is to know the absolute truth, and, knowing, proclaim it to the world.

A Senate for Discredited Stallions.

Editor "The Farmer's Advocate":  
Why are we at present hearing some talk concerning the inspection of stallions for breeding purposes? The owner of the unsound old mare, with bad conformation, a big bone spavin, and cataract into the bargain, answers, "The Government is going to pass an act providing for the compulsory inspection of all stallions used for breeding purposes, so that there will be a big improvement of the horses produced in the country." Such an answer from the owner of the sightless old slave is enough to stagger any man who had not tasted either Irish or Scotch for a twelvemonth. Is the horse market not in a flourishing condition? Are prices not good enough, even for a scrub worker or driver? Are the pure-bred stallions of all breeds getting scarcer, and the scrubs getting plentiful and crowding the superior animals to the wall? I think the demand and prices are good, and that the pure-bred horses are rapidly increasing everywhere, and thus improving the quality of the younger generation of colts. If such an act had been placed in force about twenty years ago, when the country was infested with scrubs, we would not have to look back and recall the days to memory when every barnyard was full of the produce of the scrubs, that could not be sold at any price. But to-day, when there is a registered horse in nearly every nook and corner of the country where there is any enterprise at all, I say no such act is required. If the mares were equal to the stallions in general, although there are some inferior ones, we would not

He commences his career as a breeder of colts, which become unsound from very trivial causes. He is sound, and yet year after year he breeds colts which develop unsoundness of one kind or another. What will the Government do with him? Will he be allowed to breed on and produce his undesirable kind? If he is stopped, what will the owner of this sound horse say, with \$1,500 or \$2,000 in him? Seeing that the proposed act is for the benefit of the farmer-breeder and not for the stallion man, it would be nothing less than right that the Government would pay for such a horse if its acts reach far enough to condemn him as a breeder. If he is allowed to breed he will do more damage than many an unsound horse. The second is a horse which has already developed some unsoundness, but he is a good breeder of sound stock. Has such a horse to be condemned as unfit for breeding purposes? The majority of breeders will answer "No." The inspectors will need to be far-seeing and discerning men to say whether a horse is to be condemned or allowed to breed. If an act is passed, is it going to have a sliding scale, by which the inspectors can effectively deal with the two foregoing kinds of horses? If the unsound stallion, although he breeds good, sound stock, is allowed to continue breeding in some instances, what are all the other owners of similar stallions going to do or say if their horses are not allowed to breed also? What will the owners of the sound horses say about the unsound ones being allowed to continue? We hear about a tax of \$10 to \$50 on each stallion. Are stallion men growing rich, so that they can afford to pay this tax, and what will most of them think of this proposed act after looking into it? The most of them will say that the proposed act is a genuine humbug. The Government ought to pay for a stallion as soon as it condemns him out of those taxes, as the owner cannot afford to lose the price put in him. The Government ought also build extensive sanatoria in various parts of the country, to receive stallions which they condemn. The taxes might go to establish a n Upper House or stallion Senate for discredited stallions, on the same principle as the Senate is now a haven of rest for discredited politicians. The stallions could talk over old times, and their usefulness not being appreciated, but could rest content with plenty of oats and hay. Such a n institution would be useful to the embryo horsemen of the country; they could there see the blind, lame, halt, vicious and sweet-tempered stallion. The country needs no such act. The best breeds of horses are coming in in great numbers; the inferior horses are fast disappearing, not receiving public patronage; this will continue. Breeders have found it profitable to patronize the best, and are capable of selecting their own sires.  
Norfolk Co., Ont. HORSE-BREEDER.



Emblematic

Shire stallion. Winner of numerous prizes in England.

be continually hearing of the low class of horses in almost every neighborhood. That is the place for the Government to step in and, by some means, put an end to the breeding of the unsound and ill-shaped mares. What horse could get a good foal from the majority of them? Darnley 222 or Prince of Wales 673 would be powerless to get a first-class horse from most of them. We hear about the importers favoring an act to shut out all unsound stallions from breeding operations. The importers generally import for sale, and it is presumed their horses are sound, but I would ask the army of stallion men who buy from the importers and wear the stallions out, how they will like the act when their sound horses at purchasing time deteriorate into the unsound ones, with their hard-earned money in them! The perspiration will stand out on your brow some morning, when the temperature is below zero, for you have discovered that a spavin is gradually developing, or that he is lifting and falling unnaturally at the flank. Take off your hat and allow your heated brain to cool, then proceed to the house and inform your wife, for she is the only one to whom you can confide your misery (the neighbors could not keep a secret like that). You will both be compelled, by the Act of Parliament, to acknowledge that he is useless, although you have paid \$2,000 for him. The importers will supply you with another, if you have the price—not otherwise. Can you afford to favor an Act of Parliament of the kind proposed, where so many chances of loss to yourself may be hidden in the background?

There are two kinds of stallions, and I would like to know what is to become of them under the proposed act? The first is the sound stallion, that remains sound after he has left the importer's hands.

Formalin for Thrush.

A substance that has come into wide use in recent years is formalin, which is nothing more nor less than a forty-per-cent. solution of the gas formaldehyde in water. Formalin is the best preventive for smut in seed grain, the best and safest treatment for scab in potatoes, and vaporized formaldehyde is the best disinfectant for sick rooms. The multiplicity of uses to which it may be put suggested to an enterprising veterinary practitioner in Ontario, that it might be good for thrush in horses' feet. He tried it with marked success. Last spring he told "The Farmer's Advocate" about this new treatment for thrush, and we printed an item which was widely copied (without credit) in our American exchanges. Lately we had opportunity again to ask our veterinary friend if he still found his remedy a success. His reply was a decided "Yes; you can make no mistake in recommending it through your columns." The treatment is simple and cheap. Clean out the cleft of the frog and syringe or douse daily with a solution of one part formalin in five or six parts water. In obstinate cases a slightly stronger solution may be used. This recipe is worth a year's subscription to every man having a bad case of thrush to treat.

LIVE STOCK.

Beef Cattle Slowly Improving.

Editor "The Farmer's Advocate": I purchase nearly all the cattle I feed, and do not find them more difficult to secure than formerly. Drivers bring them in large numbers every fall to sell to farmers for stall feeding. I would say that the quality has been improving slowly the past ten years. Most of the cattle brought here for feeding show more or less breeding.

In some sections cattle can be raised at less cost than with us in Wellington County. A steer 2 1/2 years old should be worth \$40.00 to \$45.00. I do not think he can be raised for less.

Stall feeding is preferred in this section. We can grow grain, hay and roots, but our soil is not so suitable for pasture as in some other sections. A bunch of good steers, stall-fed, should make an average increase in weight of at least 50 lbs. a month, and should increase in value so as to pay the feeder \$5.00 to \$6.00 a month.

When feeding liberally we prefer the cattle tied up, as each animal is then sure to get its allowance. Hay, roots and mixed grain chopped is the principal feed we use; we feed three times a day, and water regularly. We commence with a light grain ration, keep increasing for six or eight weeks until a full ration is arrived at, which should be about one pound of meal for every 100 lbs. of the animal's live weight. Keep comfortable, warm, with good ventilation; use common sense in the management of the animals and all will go well.

Stockers are not raised for sale in this section, and very little finishing is done on grass. Our pastures are not as suitable for finishing as in some other parts of the country.

Wellington County. G. B. HOOD.

Itemized Cost of a Stocker.

Editor "The Farmer's Advocate": I might say that to sell good stockers or feeders is something I would never do, as I think it more profitable to finish them for the block. Of course there may be cases where it is advisable to sell as feeders, as, for instance, where a man has not proper feed or stables, or time or ability to finish them. The business of raising stockers has the advantage over dairying of requiring less work for the amount of food consumed, hence better where labor is scarce or for a bachelor farmer; or, it answers well where one has a pasture farm at some distance from his cultivated farm, so that his cows could not be driven to and fro every day. Probably one need not be so particular as regards carefulness of handling and time of feeding, hence better for a man who cannot be always on hand at just the right time to feed. The latter considerations apply also to the advantages of stocker-rearing for sale over finishing for beef.

Certainly it is better to raise and sell stockers than to feed practically no stock and sell the fertility of your farm in grain and hay; though in selling stockers you sell more fertility or fertilizing constituents than in selling any other class of farm stock, still you do return a large percentage to the soil and much vegetable matter in the manure.

I have calculated to the best of my knowledge and judgment the exact cost of rearing a calf and feeder under our particular conditions, but as I have never kept an exact account of these things, they may not be exactly correct. Objection might be taken to the price of some things, as, for instance, new milk. I have rated it at about its value for buttermaking. We will suppose the calf to be bred from beef-producing dam and sire, and to be dropped May 1st:

Table with 2 columns: Item and Cost. Items include: Fed 15 days on new milk, 6 qts. per day; 90 qts. at 2c. (\$1.80); Fed 15 days on half new and half skim milk; 50 qts. new, \$1; 50 qts. skim, 10c. (1.10); Fed 5 months—150 days—on 10 qts. skim milk per day; 1500 qts. at 4c. per qt. (3.75); Fed 1/2 lbs. linseed meal per day; 40 lbs., at 4c. per lb. (1.60); Fed 1 1/2 lbs. ordinary meal per day; 225 lbs., at 1c. per lb. (2.25); Pasture, green feed, etc., for this period (1.00); This brings us to the end of October, when it should go into the stable for 6 mos.—180 days. Fed 2 lbs. meal per day; 360 lbs., at 1c. (3.60); Fed 10 lbs. roots per day; 30 bush., at 5c. (1.50); Fed 10 lbs. ensilage per day; 1800 lbs., at 1c. (1.80); Fed 4 lbs. clover hay per day; 720 lbs., at 1.3c. (2.40); Then 6 months' pasture, at 50c. per month (3.00); Then 6 months' stable feed, as follows: Fed 15 lbs. roots per day; 45 bush., at 5c. (2.25); Fed 20 lbs. ensilage per day; 3600 lbs., at 1c. (3.60); Fed 5 lbs. clover hay per day; 900 lbs., at 1.3c. (3.00); No grain fed this winter. Then 6 months' pasture, at 75c. per month (4.50).

2 1/2 years old for total cost of \$37.15 Such a steer should weigh about 1,100 lbs., and cost about 3 1/2c. per pound, without counting labor or straw, against which I place the manure. Simcoe Co. A. W. P.

Molasses for Fattening Cattle.

Within recent years molasses has become one of the staple stock feeds of Texas. The cane molasses sold for feeding is the refuse after all the crystallized sugar obtainable has been taken from the concentrated juice of the cane. It is a thick, black mess, having somewhat the appearance of coal tar, but a pleasant odor and sweet taste. It runs on an average about 12 pounds to the gallon, or 170 gallons to the ton. The sugar refining companies in Texas offer feeding molasses, barreled, at 6 cents per gallon, and the same factories quote the molasses in tank cars at 2 1/2 cents per gallon.

Molasses is essentially a fattening food, containing no digestible protein worth while, but a carbohydrate content of from 41 to 70 per cent. It has, therefore, been especially recommended for feeding in combination with cottonseed meal and hulls, which are excessively rich in protein. The Texas Agricultural Experiment Station has been experimenting considerably with molasses as a stock food, and their conclusions are thus summarized, in a recent bulletin by Profs. John A. Craig and F. R. Marshall:

- 1. In our experiments the addition of molasses to a fattening ration has always produced an increased gain.
2. Addition of molasses to a ration of cottonseed meal and hulls lowered the cost of gains.
3. When molasses was added to a balanced ration it gave larger gains and improved the appearance of the cattle, but did not lower the cost of gain.
4. There was no undesirable result from feeding yearling steers one gallon of molasses each per day, and there is good reason to believe that larger amounts might be used.
5. In one experiment the cheapest gains in each month were made by the lot receiving most nearly a balanced ration.
6. Molasses returned from three to thirty cents per gallon. The lower value was obtained when molasses was added to a ration already balanced, and when, in the early part of the feeding period, an unbalanced ration was fed the higher value was obtained.

Steers that Rob Their Feeders.

In a recent article by Prof. Fraser, strikingly illustrated by that great aggregation of thieving cows, we saw, writes Dr. A. S. Alexander, in the Live-stock Report, that many farmers are simply boarding "critters" for the fun of it, as they get no profit for the work and feed they expend in their maintenance. It now strikes us that what is true of dairy cows is equally true of feeding steers, for unless the latter not only put on plenty of flesh and fat in return for the good food they consume, but put it on in the least possible time, with the least possible waste, and distribute it upon the most profitable parts of their frames, they are robbers, stealing their feed and making the labor of their feeder of no avail.

To such a category belongs the long-legged, gaunt, brindle, long-horned steer that shows to be of fast running breed, for his underline is carried up at the flank like that of a greyhound, and, chased by a yellow dog, we are sure that he could emulate the timber-topping abilities of hunters such as Tim Blong used to ride at the Chicago Horse Show. Try to fill the hand with slack skin on such a steer and the feat proves impossible, for the hide of him is stretched tight over his "slats," like the skin on a snaredrum. And he is a snare in fact, and to be drummed off the farm as soon as possible.

Then there is the steer of dairy blood, from one of Prof. Fraser's 1,020 cows that failed to pay their board. He has cat hams, a long tail, big bones, a lank, lean body, showing as many "points" on which to hang one's hat as did Don Quixote's charger or one of ex-Governor Hoard's typical dairy-formed, nervous-energy-possessed milch cows. The woe-begone face of him well might indicate his echoing emptiness, elastic appetite for every good food in sight, and sorrow at the impossibility of filling that aching void or appeasing that gnawing and expensive hunger. In similar fashion, we might go on describing the idiosyncrasies of conformation and cussedness of a great variety of alleged feeding steers that cheat their owners. But what's the use? Two such as we have outlined serve sufficiently to draw attention to the great army of nondescript, worthless brutes eating high-class, expensive, nutritious food on a multitude of rich farms and transferring it into manure piles not too much appreciated by their owners. The manure is about the only profit from the feeding of such wasteful beasts, and does not nearly repay the owner for the expense incurred. The place of each of these feed-wasters might and should be taken by a good steer, bred to convert feed into high-class beef, carried upon the best parts of the carcass, and put there in quick time, at an early age, and with the slightest degree of waste. Such steers are to be had. They may be had if the owner of the farm but decides that he must have them, and then goes earnestly to work to produce his robber

steers with these profit-paying, special-purpose feeding animals.

Of the man who this winter is feeding good feed into "skin," "canner"-type, robber steers, let us ask, "What's the use?" There is no profit in the work, and it would be far better not to feed at all than feed steers of the hungry, never-satisfied, never-fattened type. Sort over the steers in the feed-lot. Bunch up the good ones and weigh them. Keep track of the feed used daily and per week, and weigh again. This is as profitable work as weighing the milk of the dairy cow and testing its content of butter-fat. It will lead to an early detection of the robber steer, and the sooner he is found out and sold to supply the sinews of war to some foreign army, the better will it be for the farmer, and, mayhap, the sooner will come the end of the war by peaceful demise of the warriors.

British Pure-bred Stock Sales in 1906.

By W. W. Chapman.

For many years it has been my privilege to compile a summarized account of the leading auction sales of live stock in Great Britain for the information of Canadian readers. It is with great pleasure that the summarized account of the principal auction sales of live stock during the year 1906 has been prepared.

The British live-stock breeder has had a grand year, a year the like of which few now in the business can remember. His brother in Canada will be equally pleased with the excellent result that has been obtained.

The reference to the sales is made in the following order: horses, cattle, sheep and swine.

HORSES.

The result of a careful survey of the horse sales during the past year shows clearly that, except in the case of dispersal sales, a greater preference is being given by the vendors to the combination sales now held in the more convenient centers throughout the country. As a consequence of this there is greater difficulty in obtaining full averages of either the sales or for the different ages sold, because, as a rule, the sale reports of these larger sales give but the higher prices realized, ignoring those of the lower range of value.

THE SHIRE HORSE.—The best average of the year at a home sale was that realized by Mr. R. W. Hudson for forty head, i.e., £86 6s. 9d. It was at this sale that the best price of the year for two-year-old fillies was realized, 450 guineas. The nine of this age included in the sale worked out at an average of £134. Mr. H. Jagger's sale brought an average of £83 19s. for thirty-nine head; 300 gs. being made for a three-year-old filly.

Sir A. Henderson's sale resulted in an average of £80 8s. for thirty-five head. Here the best prices of the year for three-year-old fillies, 310 gs., and yearling fillies 260 gs., were realized.

Excellent averages were realized at the sales held by the estates of the late Mr. P. Stubbs, the late Mr. P. L. Mills, and Messrs. W. & J. Thompson. The respective averages were £68 10s. for forty-one head; £65 6s. 5d. for fifty-six head, and £62 12s. 7d. for thirty-eight head.

The best price of the year for stallions was 340 gs., for three-year-old stallions 140 gs., for two-year-old stallions 280 gs., for yearling stallions 220 gs., for colts 120 gs., for brood mares 510 gs., another making 400 gs., and for filly foals 200 gs.

THE HACKNEY SALES indicated a strong demand. Mr. A. Moreton realized an excellent average, with prices ranging from 140 gs. Sir Gilbert Greenall's average for fifty-four head was £58 15s. Mr. Lysaght secured £44 for seventy-seven head. Amongst the leading prices realized were 175 gs. for stallions, 86 gs. for yearling stallions, 650 gs. for brood mares, another making 350 gs., 100 gs. for three-year-old fillies, 200 gs. for two-year-old fillies, and 135 gs. for yearling fillies, whilst geldings made from 395 gs. downwards.

The demand for hunters and harness horses was a very keen one indeed, the former making, amongst other prices, 600 gs., 570 gs., 500 gs., 700 gs., etc.

CLYDESDALES made some notable prices; amongst those for stallions were 750, 400 and 295 gs.; for colts 145 gs.; for brood mares 515 and 290 gs.; for three-year-old fillies 140 gs.; two-year-old fillies 160 gs., and filly foals 105 gs.

THE SUFFOLK sales reported were very few in number. Amongst the leading prices for this breed were: Stallions 160 gs.; two-year-old stallions 76 gs.; brood mares 150 gs., and fillies from 64 gs.

CATTLE.

The record of Shorthorn sales this year is one that has not been equalled in the history of the breed, taking into consideration the large number of sales which have taken place during that period. It is true in the seventies some few higher prices and higher averages were made, but these were very much more limited in number. The top place in the average list is occupied by Mr. Duffie, at whose sale eighteen bull calves made the notable average of £304 15s. per head, with the top price of 850 gs. Closely following this comes the dispersed sale of the late Mr. P. L. Mills' herd, at which one bull and one cow head realized £155 19s. 5d.; the two cows were 1,100 gs. for a bull, and 600 gs. for females.

It is the most... being heifers... of Mr... head, a... A. M... Marr's... 5s., wit... Webb's... for a co... Mr... £94 4s... was the... £27... at Sand... fifty-one

Three other... number... The... held in... city's S... hundred... £99 15s... ling bul... two-year... year-old... The... £98 13s... so large... 550 gs... Cameron... from 280

The... for here... At A... of £70... yearling... The... ball rolli... was £74... of the s... which re... priced bu... prices be... was reach... in March... lines its... 11d.; 101... have neve... the Perth... eight of t... an averag... realized a... and 27 of... Some high... November... ton & Co

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RED PO... eminence w... mond realiz... whilst Lord... age of £20... bulls were... year-old hei... JERSEY... is very pop... averages re... £31 3s. 5d... 17s. for 42... 43 head, an... The best... for cows, 7

It may be permissible, in view of this sale being the most notable of the year, to mention that, in addition to the top price for bulls and cows of the year being realized at it, the best prices for three-year-old heifers, yearling heifers and heifer calves were also realized there, i.e., 300, 420 and 360 gs. Fourteen head of Mr. A. T. Gordon's herd realized £126 13s. 6d. per head, and the average for a similar number from Mr. A. M. Gordon's herd was £123 13s. 6d. Mr. John Marr's bull calves, seven in number, averaged £122 5s., with the top price of 250 gs. The late Mr. Jonas Webb's herd realized £98 4s. for forty head; 350 gs. for a cow was the top price.

Mr. Dudding's annual sale produced an average of £94 4s. 8d. for fifty-one head; 1,000 gs. for a bull was the top price. Mr. J. Wilson's fourteen head averaged £72 19s. 6d. H. M. the King's periodical sale at Sandringham gave an average of £61 1s. 3d. for fifty-one head; 400 gs. for bulls was the top price.

Three other sales gave averages of over £60; five other sales gave averages of over £40, and quite a number of others brought £21 to £39.

The first of the joint sales of the season was that held in connection with the Royal Agricultural Society's Show at Derby. It was most successful, one hundred and ninety head being sold at an average of £99 15s. each; the best prices were 610 gs. for yearling bulls, 275 gs. for yearling heifers, 270 gs. for two-year-old heifers, and 250 gs. for cows and two-year-old bulls.

The Inverness October sale brought an average of £98 13s. 5d. for seventy-five head, a grand result for so large a number. The top price of the sale was 550 gs. for a two-year-old heifer, sent by Mr. C. M. Cameron; a yearling heifer made 320 gs., and bulls from 280 gs.

The Perth October sale was almost as successful, for here forty-four head averaged £85 17s. 8d.

At Aberdeen October sale, 83 head gave an average of £70 12s. 5d. The best prices were 350 gs. for yearling heifers, and 210 gs. for bulls.

The Perth February sale was the sale that set the ball rolling for the whole of the year. The average was £74 10s. 2d. for 314 head, but the great feature of the sale was that of the yearling bulls, 251 of which realized an average of £84 1s. 5d. The top-priced bull realized 1,500 gs.; sixteen others making prices between 700 gs. and 220 gs. The 700-gs. mark was reached twice—a notable record. Close afterwards in March came the Birmingham Spring Sale. In two lines its summary goes: 402 bulls sold at £68 15s. 11d.; 101 females sold at £46 8s. 7d.; averages that have never been equalled at this sale. It is true that the Perth top price was not equalled, but we find that eight of the picked bulls in the champion class realized an average of £217 12s. 3d., and that the top price realized at the sale was 850 gs.; another made 750 gs., and 27 others realized prices between this and 200 gs. Some highly successful sales were held at York in November, April, May and October, by Messrs. Thornton & Co., and also at Birmingham in September.

**ABERDEEN-ANGUS CATTLE.**—The home sales held during the past year have not included any of the leading herds, and, consequently, the top prices realized during the past year have been less than in 1905. Mr. W. S. Ferguson's average (£24 6s. 3d.) for 45 head is the best sale average of the year.

The February sale at Perth, at which 276 bulls were sold, gave an excellent average of £27 16s. The best prices realized were 270 gs., 215 gs., 200 gs., etc. At the Birmingham spring sale some good prices were realized. Sir G. A. Cooper's bull made 110 gs.

The best prices for cows during this year were 65 gs., at Mr. Chalmers' sale, and 60 gs., at Mr. Bainbridge's sale. The latter also made top price for yearling heifers; two-year-old heifers ranged from 48 gs., and heifer calves from 35 gs.

**HEREFORDS.**—The sale reports in connection with this breed are very incomplete; scarcely an average has been obtainable, but we may remark that the demand for these cattle has been an exceedingly good one, and quite a large number have been sold for export. Yearling bulls have made up to 120 gs., realized at the two sales held by the society in the spring; 100 gs. was also realized by Mr. J. G. Jones at his dispersal sale.

The best price for cows was 104 gs., realized by Mr. D. Price, and the respective top prices for three-year-old, two-year-old and one-year-old heifers and heifer calves were 44 gs., 33 gs., 52 gs., and 23 gs.

**GALLOWAYS.**—The sale list of this breed is not a long one, and the leading prices made during the year were: two-year-old bulls, 26½ gs.; yearling bulls, 41 gs.; cows, 40 gs.; two-year-old heifers, 27 gs., and yearling heifers, 50 gs.

**RED POLLED CATTLE.**—Two herds of known eminence were dispersed, that owned by Mr. J. Hammond realizing an average of £22 12s. 2d. for 85 head, whilst Lord Amherst of Hackney's Sale gave an average of £20 5s. 3d. for 102 head. The best prices for bulls were 52 and 51 gs.; for cows, 41 gs.; for two-year-old heifers, 85 gs.

**JERSEYS.**—This well-known breed of dairy cattle is very popular at home, and amongst the leading sales averages realized are the following: Lord Rothschild, £31 3s. 5d. for 48 head; the late Miss Standish, £20 17s. for 42 head; Mr. J. C. Drew, £19 18s. 6d. for 43 head, and Mrs. L. Brown, £17 for 47 head.

The best prices for bulls were 60, 55 and 50 gs.; for cows, 70, 67, 46 gs., etc., and for heifers 30 gs.

SHEEP.

The British flockmasters, as a whole, have met with a very excellent demand throughout the past year. The sales have been well attended, and so far as regards typical stud sheep of both sexes there has been no cause to complain of the prices realized, and had it not been for the want of proper selection by the breeder in selecting his stud sheep, the averages recorded would have been considerably higher.

**LEICESTERS.**—The best averages for yearling rams were £11 and £10, respectively, and the top price realized was £21.

**COTSWOLDS.**—The increased price of wool has brought this old breed much more to the front, and those who remain faithful to their old favorites have found an excellent demand this season.

The best averages for yearling rams were 11 gs. for Mrs. Dixon, and £11 10s. for Messrs. T. Brown & Sons. The top prices for this age were 30 gs. and 26 gs. Ram lambs have also been in keen demand; the best average was £8 14s. 6d. for 16, whilst Messrs. T. Brown & Sons let for the season 120, at an average of £8 6s. 3d.

**LINCOLNS.**—The demand for this breed has been tremendous, and the first place, clean ahead of all others, is occupied by Mr. Henry Dudding, at whose sale 56 rams brought the record average of £151 1s. 9d. His top price for yearling rams was 1,450 gs., the record price for this or any other breed in England, and at his sale the top price for yearling ewes, 30 gs., as well as the best average for this age, £16 17s. 4d., during the past year was realized. Other averages of £70 3s. 9d., £47 13s. 4d., £30 13s. 2d., £27 14s. 4d., £26 18s. 10d., £26 1s. 10d., £24 12s., £24 9s. 3d., £23 12s. 6d., £23 4s. 3d., £22 15s. 2d., £22 5s. 7d. and £20 14s. 9d., clearly indicate the satisfactory result that the breeders of the best Lincoln rams have secured during the past year.

lams' 18 head; £15 18s. 6d. and £15 16s. for other vendors.

Mr. B. H. Mander made the best average for ram lambs, £10 7s. 8d., for 14; 42 gs. being the top price.

**SOUTH DOWNS.**—The sale of the year was Mr. E. Ellis' dispersal sale, the whole flock, 615 head, making 1d. per head under £6 for its average; yearling ewes made up to £14, and flock ewes up to £15. The top-priced yearling ram of the year was 100 gs., purchased by Mr. W. W. Chapman for export to Australia from the Duke of Richmond, whose sale average at this sale, £22 12s. 6d., was only beaten by that average realized at Mr. E. Ellis' sale, at which the yearling rams averaged £24 8s. 5d.

Mr. E. Ellis also realized the best average for ram lambs, i.e., £8, 7s. 9d. for 65 head, a notable average for so large a number.

**HAMPSHIRE DOWNS.**—The dispersal sales did not include any of the leading show flocks, but some very capital prices were realized all through the season. The best price for stud rams was 25 gs. at the Royal Show sale, at which an average of £15 12s. 10d. was realized. The best average for yearling rams was also made at this sale, £10 8s. 3d.

The demand for ram lambs was thoroughly good. The top prices for the let ram lambs were 205 gs. at Mr. Coles' sale, where these lambs averaged £82, and 180 gs. at Mr. James Flowers' sale, at which these lambs averaged £76. The best averages realized at the Home sales were £21 for 90 of Mr. Cary Coles', and £20 10s. for 100 head of Mr. James Flowers'.

The best price for yearling ewes was £6 10s., realized by Mr. W. C. Young, whose average was £5 8s. for 100.

**SUFFOLKS.**—These have been in good demand. The best average for rams was £7 9s., and the top price £21; for ram lambs the best prices were 41 gs., 36 gs., 35 gs. and 34 gs., and the best averages £18 8s.,

£17 9s. 7d., and £16 16s. 9d. Yearling ewes made up to £6, and their averages ranged from £4 10s. downwards.

**DORSET HORNS.**—A couple of dispersal sales afforded a good indication of the range of prices for the selected stud ewes. These made, for yearling ewes, from £6 10s.; for four-tooth ewes, from £4 10s., and flock ewes, from £5 per head.

The range of prices for yearling rams was from 18 gs., and the averages for this age ranged from £7 14s. 3d. Ram lambs made up to 17 gs., with averages from £6 19s. 6d.

**KENT OR ROMNEY MARSH.**—The individual prices and averages realized for this breed during the past season have been in excess of any previously realized. Individual rams made 120 gs., 75 gs., 50 gs., 40 gs., 39 gs. and 38 gs.; whilst averages of £20 18s. for 22 head, £18 17s. 2d. for 50 head, £16 18s. 10d. for 10 head, and £16 10s. 4d. for 39 head are amongst the best realized during the year.

**BORDER-LEICESTERS.**—A thoroughly good demand was experienced for these. Yearling rams made up to 200 gs. per head, and several others made nearly the century. The averages ranged downwards, from £34 4s. This average was realized for 26 head at the Kelso sale.

**THE DEVON LONG-WOOL.**—A satisfactory season was experienced by the breeders of these sheep; 36 gs. was the top price of the year for a yearling ram, and the averages ranged downwards from 16 gs.

**BLACK-FACED MOUNTAIN SHEEP.**—A breed that relies entirely upon its own demand realized some very notable prices indeed, the best of which were £190, £96, £95, £62, £60, £50, etc. The best average of the year for yearling rams was £45 4s. for 15 head; another one of £34 7s. 8d. was realized for 13 head; six others of over £20 were also realized.

**SOUTH DEVONS.**—Another breed of long-wool sheep that has not yet been able to secure the patronage of the export buyer. This will come some day, but although they have not this valuable addition to the demand, the breeders find plenty of competition for their better sheep. Individual prices of 53 gs., 36 gs., 30 gs. and 28 gs., with averages of £18 19s. 7d., £14 16s. 7d., £14 11s. 2d., and £14 9s. 2d. indicate how well this breed is appreciated by those who know and have tested its value.

The sale record for the other minor breeds is very meagre and incomplete, but it is with these, as with the others mentioned above, generally understood that they have had a good demand.



Campflower 3rd of Stepford  
Champion Galloway bull, Highland Show, 1906.

In addition to several sheep that realized between £100 and £500, and Mr. Dudding's sale, there were several others that made over a century, including Messrs. Dean's 230 gs., J. Pears' 230 gs., G. Marris' 200 gs., R. Fisher's 150 gs., K. Dixon's 115 gs., and F. Ward's 105 gs.

**OXFORD DOWNS.**—Probably the breeders of these sheep have had a better year's demand than for a very long time, particularly for ram lambs. The strength of this year's demand was in the large number taken for cross-breeding purposes in Scotland. The best prices for yearling rams were 75 gs. (J. Worley), 50 gs. (J. Treadwell), and 41 gs. (J. T. Hobbs). Averages for this age ranged downwards from £18.

The best prices for ram lambs were from 32 gs., and the best averages ranged from £11 13s. 8d., realized by Mr. G. Adams for 56 head at Oxford fair.

**SHROPSHIRE.**—The dispersal of the late P. L. Mills' flock, and that belonging to Mr. J. Harding, afforded breeders an opportunity to secure some of the choicest ewes of the breed. At the former sale the average for the whole lot was £5 2s. 6d., yearling ewes making 16 gs., and other ages 9½ gs. and 4½ gs.

At Mr. Harding's sale yearling ewes made 10 gs., four-tooth ewes the same price (this being the top price for that age), and flock ewes made £7 17s. 6d. The best price for yearling ewes was realized at the Royal Show sale, where 25 gs. was paid, and six averaged £18 17s. 6d., the highest average of the year.

The top-priced ram was 115 gs., paid for a yearling ram from Sir R. P. Cooper's flock at the Royal Show; 90 gs., 75 gs., 70 gs. and 66 gs. were also realized for yearling rams. The best averages for this age were £23 19s. at the Royal Show; £19 5s. for Mr. M. Wil-

PIGS.

The best sales of the Large White breed during the past year were those held by the late P. L. Mills and Mr. Henson. At the first-named sale 158 head were sold for an average of £9 3s., and at the latter 77 head realized an average of £8 9s. The best price of the year for boars was 25 gs.; for sows, 31 gs., and for gilts, 37 gs.; all realized at the late Mr. P. L. Mills' sale.

THE BERKSHIRE demand has been a very good one. Mr. Hiscock's average was £11 11s.; that of the Hon. P. D. Portman was £10 19s. 3d. for 50 head, and at the late Mr. P. L. Mills' sale 75 head realized an average of £9 0s. 6d.; the best price for boars was 50 gs., realized by the Hon. P. D. Portman. Sows made up to 40 gs., and gilts 10 gs.

The sales held in connection with the Middle Whites, Tamworth and Large Black breed were fully up to the average, and some very good prices were made.

To avoid dishonesty in registration of pigs, it is suggested in Great Britain to have the local veterinarians do the ear-tagging, on the basis of which ages would be reckoned.

THE FARM.

Wooden Basement Wall Described.

Editor "The Farmer's Advocate":

Your editorial of Nov. 29th brings before us a question which cannot be too fully discussed. The old barns, as they were originally built, with their inconvenient and badly-arranged stables, should certainly be remodelled in some way, and the question naturally arises, How am I to do this with the smallest cost and have them convenient and sanitary when I am done? Well, to my mind, the basement stable, with all its advantages of convenience, such as always having the feed and bedding handy above the stock, besides getting so much accommodation under one roof; also, the stables all being together, which would greatly reduce the cost of putting in water basins or litter carriers, either at the time or at any future date—with all these advantages—will not be abandoned for some time, at least. Of course, the next question which would appeal to the farmer is, What material shall I use to build the basement? As your editorial justly pointed out that stone or concrete make too damp a stable, I think basement brick, with the air-space, partially overcomes the difficulty of dampness. But my idea of a basement stable where horses and cattle are stabled together would be to build a cement-concrete wall about two feet in height, eighteen inches in width under the ground and a foot above ground, then put a plank sill on this, and have posts six feet in length mortised in this sill so they would come exactly under the outside posts of the barn, properly mortised and pinned at the top, and well braced three ways. They could be braced at the bottom also. Then put 2 in. by 4 in. studding vertically, two feet apart between these posts. This studding should be put suitable distances apart where doors and windows are to be put. Then board it around on this studding horizontally with inch lumber. Next put on building paper, and then board it up with good ship-lap lumber, being careful to have the door and window casings fit properly. And, by giving it a coat of paint, it would make fully as good an appearance as any basement of masonry. If a person wished to renew the outside boards of the barn with dressed lumber, to be painted, the old lumber from the barn would do for the blind-boarding or (inside boards) on the basement.

This plan of building a basement would greatly reduce the amount of teaming. Such a basement would not require much time in building, and would not require much expensive material; and as long as it was kept painted, would last indefinitely. Of course, I would recommend concrete floors, and also a good system of ventilation. This has been greatly overlooked in a good many of the basement stables.

In the plan which I have outlined, it is supposed that there was an old barn to be remodelled. I hope to see this question fully discussed in the columns of "The Farmer's Advocate" this winter. Let us hear from those who have had the experience of basements in years past. Thanking you for this space in your valuable paper, which you said was ours for this discussion, I remain,

Welland Co., Ont.

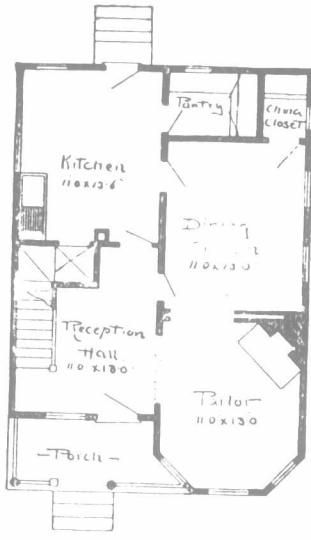
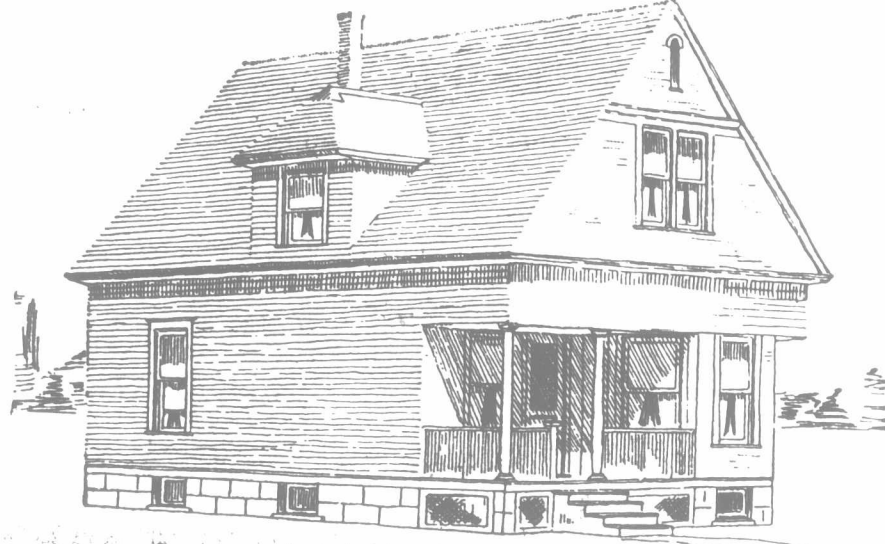
[Note.—Our correspondent omits describing the "good system of ventilation" which he would advise.—Editor.]

The demand of the twentieth century is for economy. Economy is not parsimony. Economy consists in making the best possible use of every opportunity; of every bit of land and every head of stock, that it may yield maximum returns for minimum labor and expense. In the enlightened economy of modern farming alfalfa has an important part to play.

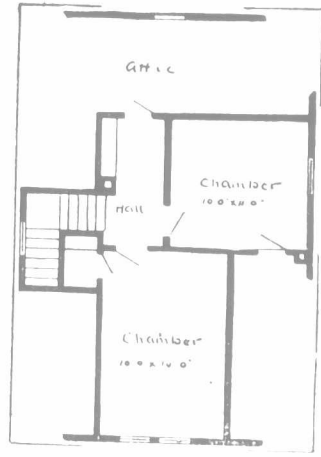
Design for Small Cottage.

By Geo. S. Kingsley, Architect.

A convenient and inexpensive plan for a small cottage is shown in the illustrations accompanying this article. The design is also neat and inexpensive. First floor has reception hall, parlor, dining-room and kitchen, in addition to pantry and a closet. There are two bedrooms and closet on second floor, and also a small attic for storage purposes. Basement extends under whole house, and has exterior and interior stairways. This house can be easily heated by stoves or by a furnace, as is desired. The porch in front is a feature that will not add much to the cost, owing to the fact that it is under the main roof of house. If a bath-room is desired now or at any future time, it can be easily arranged on second floor in portion of space



—First Floor Plan—



—Second Floor—

devoted to attic. The rooms are all of good size and shape, and windows are arranged so as to get the best possible light. Prices and local conditions vary to a considerable extent in different portions of the country, so any estimate of cost will not be exactly correct in some localities. For instance, if a house should be built in a location where the ground was of a sand foundation, the cost of the masonry would be less than if in a clay district. The expense of excavation would be less, owing to the fact that a scraper could be used, while in the other case picks and shovels would be necessary, which would require more time and labor, and the sand, if of proper quality, can be used for mortar and plastering, whereas if built in a clay district the sand would have to be bought and hauled. My estimate of the cost of this building is \$1,000.

Favors Wooden Basement for Barns.

Editor "The Farmer's Advocate":

In reply to the article in "The Farmer's Advocate" of Nov. 29th, under the caption, "Is the Basement Barn a Success?" I may say that, having lived in a stone house over thirty-five years, and had twenty years' experience of stone-basement stables at home, and having visited many of the best barns in Canada, and having collaborated the main point raised, that nearly all of them have a cold, damp, chilly air that is neither healthful nor agreeable. It is more pronounced in mild weather following a protracted cold spell, when many walls will get coated with hoarfrost. The air gets very disagreeable. I do not know that I have ever been in a basement barn where the ventilation could be called a success. Light, dry air, warmth and ventilation are the most important stable requirements. I am sure that we cannot obtain all of these in a stone basement. In our house, even with a good system of ventilation

walls, the paper will get damp unless there is a constant, steady fire. As to your suggestion of building a low annex to the barn to be used as a stock stable, this would cause too much roof to be exposed. Under the annex there would be scarcely any room for feed. The most expensive part of a barn to put up and maintain is the roof, and if we can have stock and feed under the same roof there will be less labor in handling the feed and less expense in reroofing. In most annexes or sheds the roofs are not steep enough, continually requiring repairs. The life of an average shed roof is not over fifteen years. I think that an annex stable roof would be too expensive, giving only cattle and no feed accommodation. But I am quite in favor of the two-story barn you suggest. Let me briefly describe the kind of a barn that I think would be suitable to our conditions. From 36 to 45 feet is wide enough. Many of our barns are altogether too wide; not convenient to mow hay and sheaf grain in, causing too much labor to get the sheaves to the threshing machine. A wide cattle basement is very difficult to light properly. Build a stone foundation from fifteen to eighteen inches high, upon which I would set a stout frame nine or ten feet in height. This I would rough-board outside, and inside cover with combination felt-and-tar paper, double ply. Finish outside with matched siding, inside with half-inch. This would be all dry-wall material, with an air-space. Walls would never be damp. There would be dry, warm air at all times, no matter how changeable the weather outside might be. The windows should be long, not deep, and placed as high in the walls as possible. This would let in more light, and be out of the way of the cattle both outside and inside. There should be plenty of windows—let in the light! The sash should be made in two sections, so as to slide past one another. This is more convenient and lasting than having them swing on hinges. A cement floor of coarse gravel, not too smooth, would save the urine, and animals would not slip. Would have all stock in loose pens except the milking or dehorn when rising two years old. Would plan doors so as to drive team into pens and stables, load up the manure, draw when loaded to the field. Pen-made manure is best, as urine, bedding and excrement are thoroughly mixed. Young, growing or fattening stock will thrive and do much better in pens or loose boxes. It will materially lessen labor in the feeding of the stock and handling of the manure. I would have a small, clean, airy, well-ventilated room, about 8 x 8 in basement for separator and dairy utensils. I would have car-track on ceiling of basement, connecting with feed room, which should be convenient to roots, storage and silo. A large feed box could be filled and hoisted with crank attachment, pushed along above the feed mangers, one end lowered a little so as to get the feed out easily. This is the best arrangement for feeding stock kept in loose boxes.

For the upper story I would have the outside walls at least twenty-four feet high, covered with a circular roof. This is much better than the old-fashioned peaked roof, or even the more modern high roof. It requires less long, heavy timber in frame, gives more inside space, makes a strong roof, and is much more attractive in outside appearance. Would have the granary in the middle of barn, so that the grain spout of threshing machine would be close to granary door. By having the barn long, rather than wide, there would be more mows and threshing floors, giving better opportunities to put in chutes to slide dry feed into mangers and bedding litter into boxes below. A good-sized door in each gable end, opening to the inside, to avoid slamming in the wind. This helps to keep the barn clear of dust when the threshing machine is at work.

Welland Co., Ont.

DUNCAN ANDERSON.

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**Stable Floors and Stanchions.**

Editor "The Farmer's Advocate":

In answer to the inquiries of G. S. and your solicitation for plans of cow stables and floors, I will freely give your readers my most approved plan, as I have tried a few and seen many. I might say your suggestion as to raising the feed alley to the top of the mangers has too many disadvantages and is too costly also for most ordinary farmers, and there is nothing much gained but an endless running up and down steps to get to feeding, and where one is loaded with heavy roots that are seldom if ever brought in from the end or by silo cart it would be a nuisance, and in many stables one's head and fork handle would be striking the joists, as the back of the manger should be two feet high, at least, with a slant of six inches to the foot, making the manger two feet wide in the bottom and three feet wide at the top, then the cows can always reach their feed, and not much ever gets thrown out. If any wider than this at the bottom they cannot reach their chop or ensilage, resulting in a dirty, musty, unappetizing manger. The raised feed alley would make the cleaning of the mangers a backaching job, and this is one of the essential daily jobs that must be done to get the best results. If the old-fashioned stanchion is used, make the top rails out of 2 x 6 black ash or other similar wood, and the bottom sills or front to the manger of 2 x 8 plank. Cut your upright stanchions five feet long, out of 2 x 4 basswood (or ash will do). Beginning at the wall, give the first cow twenty inches to the stationary upright; leave space of eight inches for ordinary cows; fasten the bottom of next upright with 1/4-inch bolt through both planks and the center of the 2 x 4, leaving the top loose between the two 2 x 6 head pieces and sticking above them three inches, with a slanting end, so that the long loop or staple will slip up the slant and drop over the stanchion. Care should be taken to have the two 2 x 6 head pieces level on top, so the loops will staple on them even. The next should be a space of nine inches at the top and closed at the bottom within an inch, so there can be no feed rooted out that way. This is easily done by having a few eight-inch planks ripped from opposite corners after being cut 5 feet long. I have a nice little labor-saving contrivance of my own for fastening the cows when let in, by running a common fence wire through staples along the 2 x 6 head pieces to each of the loose upright stanchions, and all fastened to an upright lever at the cross alley, and by a single jerk fifteen to twenty cows are fastened. This will be appreciated very much when the cows are very full and wet, as we milk in the stable summer and winter. The distance from one stationary stanchion to the other is three feet, and no partitions, as I consider them of no use only to take up room and make the cows back up to get off the platform, and are in the way at milking time. I have discarded them forever. The standing platform I prefer being plank, as a cement floor is very hard on the knees and hocks of cows, and does not hold the bedding to its place like plank. In a 40-ft. string, I like the length of platform to be 5 ft. 8 in. at the farthest end and 4 ft. 8 in. at the other. This I find to be as near right for an ordinary herd as can be made. The drop is 10 inches, with a trench 24 inches wide and 2 inches deep at the back, with driveway as wide as possible. This width and depth will hold three days' droppings, and one can clean it when the cows are in without breaking one's back or the cows' legs getting down in an old-fashioned, deep, narrow gutter. With this there is no necessity for any fall from one end to the other, as by using a generous amount of bedding it will take up most of the liquid. The whole floor should be finished with a wooden trowel or float, and not smoothed with steel trowel, making it dangerous for man and beast. I have never figured the cost of the above, but know it is one-quarter cheaper than a raised alley and turned posts, with stalls and deep, narrow gutter, which are an every-day nuisance.

G. H. C.

Elgin Co., Ont.

[Note.—Our correspondent has mistaken our suggestion about letting the edge of the raised feed-alley floor form the front of the manger. There is no occasion for having this more than six or, at most, ten inches high. Of course it is understood that there would be either a water-trough or a horizontal scantling directly over the manger front to keep the cattle back—Editor.]

Besides all its other merits, the maple is Canada's national tree. There should be one or more around every home.

**A Barn with Manure Cellar in Basement.**

Our readers will have noticed in the Christmas number of "The Farmer's Advocate" a description of Annandale Farm, in the Annapolis Valley of Nova Scotia. The semicircular roof of the barn is one feature which will serve to arouse the reader's curiosity as to its interior economy. In the article on the farm was a paragraph describing the layout of the barn, which is now more graphically depicted in the accompanying engravings. It will be noticed that the stables are on the first floor, the portion of

thought that such a cellar would cause a bad atmosphere in a dairy stable above it, but, with a tight stable floor and the use of sufficient absorbents, it is claimed that no serious trouble is experienced.

We are not expressing any opinion about the manure cellar, and must confess we have found some difficulty in ridding our editorial minds of a prejudice against it; nevertheless, it is worth while for each one to inquire just how much of his objection may be reasonable and how much may be prejudice. At any rate, the plan is presented for the consideration and criticism of our readers, and we shall be pleased to give space to intelligent opinions, either favorable or adverse.

**One View on the Stable Question.**

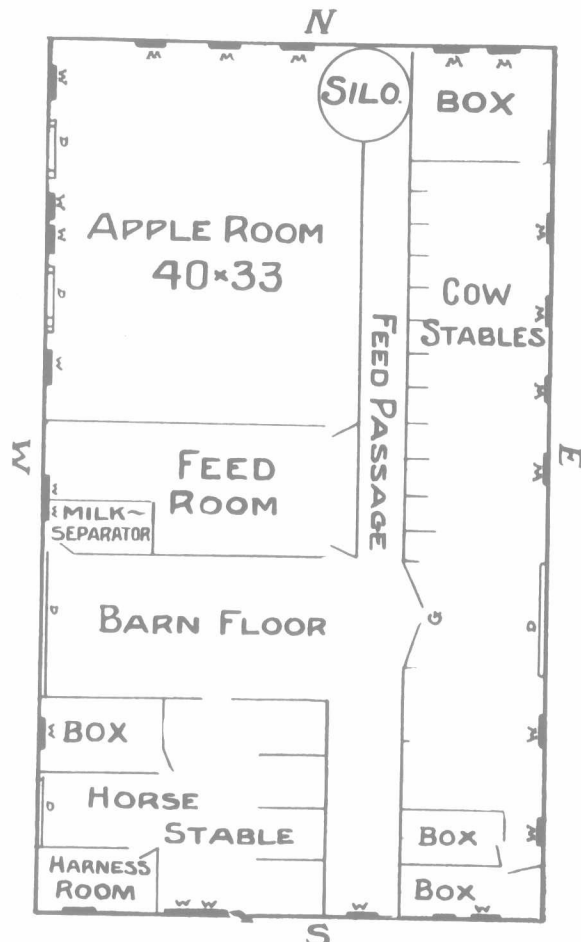
Editor "The Farmer's Advocate":

In an editorial in the issue for Nov. 29th, "The Farmer's Advocate" opens for discussion a subject on which views may be expected to vary greatly. It is a subject which touches one of the most serious problems confronting us in connection with the winter stabling of live stock; and, therefore, if the points raised serve to provoke thought and interchange of opinion, they will have accomplished a good purpose.

The characterization of the basement stable given will no doubt impress many as being somewhat overdrawn to be representative of average conditions. There are at least some such stables in which the features of dampness and chill are by no means so pronounced as to be particularly noticeable. On the other hand, there are many stables in which the conditions described prevail to a very objectionable extent. Where ventilation is lacking or inefficient, the stone-basement stable often becomes decidedly damp and uncomfortable. Even with the best of ventilation, it is probably true that it will remain more subject to these conditions than another with wooden walls. Nevertheless, ventilation helps to such a degree in keeping a stable dry, fresh and pure, that some provision should be made for procuring it, whatever the material of the walls may be. The air of a stable full of cattle is being continually furnished with a large amount of moisture, which, in the case of the stone wall, is most quickly made apparent by its condensation, and in either case should be carried away.

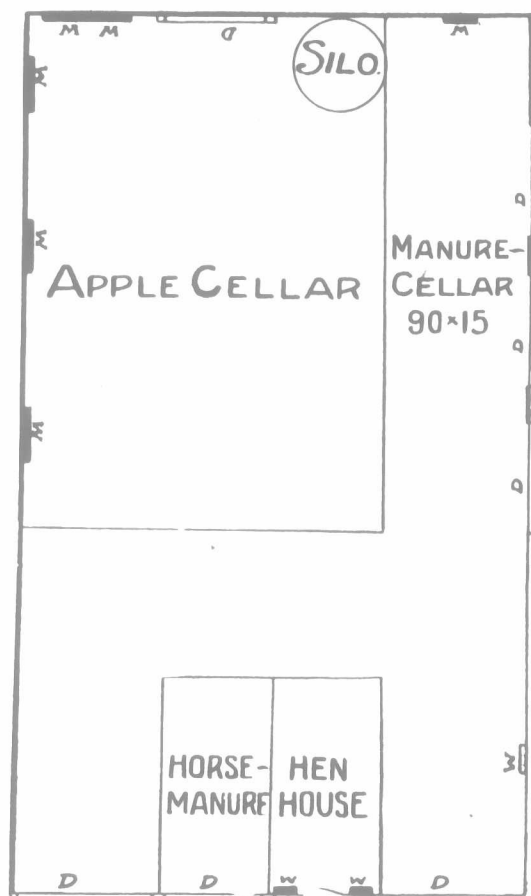
In recommending wooden walls for stables, "The Farmer's Advocate" is merely extending to the main stables the application of facts which are already generally recognized and admitted, as applied to stables for poultry, hogs, sheep, and even horses; and since practice, as well as theory, pronounces them to be preferable for these animals, it is reasonable to suppose that we should also find them better for cattle. Even granting that good ventilation would obviate much of the difficulty with stone walls, the fact remains that good-working ventilation systems are seldom to be met with. Many different plans have been devised, but almost all of them have proved to be lacking in some one or other essential, so that as yet none have been very extensively adopted. The King system, to be seen in operation at the O. A. C. dairy stables, has cheapness, simplicity and a good measure of efficiency to commend it. The cowl and sub-earth duct, which tempers the air by conveying it for some distance under the ground before distributing it through the stable, also overcomes some of the worst defects of other systems, but is expensive. The trouble with almost any ventilation system which has yet been tried, is that it sooner or later—often very soon—requires continual attention to keep it in working order, and the ordinary result is that it finally falls into disuse.

With perfect ventilation still unrealized, there is so much the greater reason for having the other conditions favoring dry and comfortable stables as nearly as possible right. To this end, some have thought of constructing cement walls in such a way as to leave a space in the wall for air, thereby securing the advantage of insulation such as is obtained in cement-block houses. Others have sheeted the inside of the walls with boards, thus acknowledging the advantage of wood over stone. In this case a part of the cost of the masonry has been added to the initial cost of the masonry. Experience with wood in separate stables has, in plenty of instances, proved that it is a thoroughly satisfactory material; and if, as "The Farmer's Advocate" affirms, there is no practical difficulty in the way of framing a barn from a low foundation, instead of from an eight-foot wall, this is a suggestion which should be well worthy of thought. By boarding up each side of the wall with matched lumber over building paper, and stripping on the outside, the stable can be made as warm as is desirable. Such a wall, owing to the size of the timbers required to support the superstructure, would almost certainly cost more than stone, especially if the stone is available on the farm; but if it is possible by this means to secure a stable which, with reasonable ventilation will be dry and warm, as we are confident it would be, then it simply remains for



First-floor Plan of Barn on Annandale Farm.

the basement beneath being used as a manure cellar. This is the common arrangement in the Maritime-province barns, and while most Ontario men shake their heads in disparagement, the plan has some advantages. The stable is drier, more sanitary and more easily ventilated than if located in the basement. The stables are easily



Basement Plan of barn on Annandale Farm.

cleaned by lifting trapdoors along the gutter and shoving the manure down. With a cement floor, the manure is preserved with a minimum of waste, and may be drawn out at any time desired. At Annandale Farm pigs are kept to root the manure over and tramp it down, and an important point is made of saving every drop of both liquid and solid manure. It might be



us to estimate how much more such a stable would be worth to us.

The other suggestion advanced, namely, of having the stables built as annexes or wings of the feed barn, seems to me to be possessed of drawbacks which would prevent it from being adopted in its entirety. The lack of compactness is a fault of such a system which would seriously discount it in the opinions of many. The problem of conveying feed and bedding to where it is required would probably be found less simple than is assumed. It is true, the silo, where it has become general, has to some extent lessened the necessity for having the stable under the feed mow. Of the litter carrier, this cannot as yet be so truthfully said. As a convenience for cleaning out stables, it undoubtedly has a considerable value. As a means of conveying feed, many who have given it a fair trial do not regard it with nearly so much enthusiasm, preferring the feed-car or barrow. Not enough can be taken in a load to compensate for the time lost in this method of handling it; and for long hay and straw the carrier is not designed at all. Unless some more satisfactory way can be found of getting roughage to the wings off from the main barn, there will continue to be a very considerable advantage in having the stables where this can be shoved down directly to where it is wanted.

The stables built after this latter plan would possess some advantage over the basement in lighting, but scarcely so much as is represented by the difference between a window in an ordinary stone wall and one in a three or four-inch wooden wall. The wall, it is true, would not require to be heavily built; nevertheless, to contain an effective dead-air space, it would need to be somewhat thicker than three inches. One of the best which I have observed is about ten inches through, and therefore is not much less of an obstruction to light than a stone wall which slopes away from the inside of the window frame.

The stone basement, it is clear, does not represent the acme of perfection in stable construction; yet, to call it a failure, in view of the fact that in it, mainly, our live stock has been brought to its present degree of excellence, would be overstating the case, to say the least. Nevertheless, if any other form of stable or modification of the one now in general favor will help us to realize more of the great improvement in milk and beef production to which we are still looking forward, we need to know of it. A free discussion of this subject through the columns of "The Farmer's Advocate" should be of great value.

Waterloo Co., Ont.

H. GROH.

### Winter Roads.

Editor "The Farmer's Advocate":

I have seen a great deal in "The Farmer's Advocate" about the split-log drag, etc., since I wrote my last article on road construction last spring. Now, I think that if you saw some of our roads this fall, you might conclude that they needed something more than the split-log drag to begin with, and that something is the road-grader, as our roads are mostly gravel, and flat at that. I am not condemning the split-log drag, for I think it will prove an O K article to keep the ruts filled after the roads are graded, etc. I have seen again this summer the grader used out of season, and that is when the roads are very dry. Those new-graded roads were since out of sight in the mud. I maintain that roads needing grading should be graded early in spring, after the spring rains have ceased, before they are nearly dry, as then they will pack more thoroughly. Am I not right? This may be during the farmers' busy season, but, under the commutation system, it can be done by others. I would like, also, to say, before I begin my topic, that I saw in a recent number of a farm journal a new kind of split-log drag, for it is made of two pieces of old railroad rails, bolted together in such a manner that they are given a half tilt. This is claimed to have more effect on the roads than the other sort of drag.

Now, as winter is setting in fast, I must fall in line with my subject. In order to have good roads in winter, one of the most important factors is the width of sleighs. If it were compulsory by law for firms manufacturing sleighs to make the runners at least six inches wider, the problem would be partly solved. I would have the law made so as to permit the employment of sleighs already in use, for it would be better than to have the sleighs all uniform in width. Some may object to this, on account of having to break the second track, but they might also object to the horses crowding and plunging, as is the case every winter with our present sleighs. As sleighs last a long time, I think this ought to solve this part of the problem for the next twenty years, at least. This regulation of width need not extend to cutters, but be confined to heavy and light sleighs only. I might suggest that cutters be left the regular width, light sleighs six inches

wider, and heavy sleighs eight inches wider, as the more irregular widths the better, and four inches on either side of the sleigh road will be found to be not too much out of the way.

Another important matter in winter roadmaking is the avoiding of pitch-holes. The way to avoid these is to pull down all old rail fences and replace with wire. This, also, should be compulsory by law. Now, the reason I would resort to law in all this matter is because little will be done unless law intervenes. Quite a little bit of wire fencing is done along the roadsides, but in our neighborhood by far the larger stretch of roads have rail and other fences. I might here also say that winter roads can be greatly improved by planting evergreens along the roadsides. Now, if wire fences are resorted to in general, quite a stretch of the road will be exposed to the wind and remain bare. It need not be necessary to travel on the center of such roads, for by only a little work when snow is off, levelling a bottom wide enough for sleighs along one side of the graded road to hold the snow will suffice. Perhaps there may be gullies and large hollows where it will be necessary to keep the center of the road. Well, I think about the only thing to do, in such cases, is to tack a board or two to posts or stakes along the top of such grades, leaving room enough for traffic, the object being to prevent the wind from blowing such roads bare. I think a better plan would be to plant evergreen trees half way up the grades, more or less. When these have sufficiently grown, they will have a more permanent effect than boards.

It would be well to keep to the side of the road for long stretches at a time, where possible, to avoid joggling from the graded road and back to the center again as much as possible. Where possible, the graded road may be taken or left at gateways. Where the graded road has to be used during winter across gullies or hollows, and where there are no gateways, level approaches can be made to the center, as the graded road lowers considerably into the hollow. This can hardly be called expensive, as it has only to be done once, and as the graded roads will be little used in winter, wheeling will be fairly good before sleighing is done.

The next thing to consider is the plowing, or rather disking, of the roads when necessary. The out-throw disk harrow has been used quite extensively in this county, and with the greatest success. I shall merely mention the snow plow, as it is a relic of the past on sleigh roads. Where the roads side or cut off badly, it may be necessary to plow previous to putting on the disk. This work will be necessary after a thaw and in the spring.

Now, in conclusion, I might say that some features of this matter, especially as regards the width of runners, which I have brought before the readers, may be treated with contempt and ridicule by some, but I think that all that I have written will hold good, not only in theory, but in practice. Before concluding, and aside from my topic, I wish to make a few remarks on your article of the 15th Nov., "A Lesson on Getting There First." It is certainly all right. The farmers are about as slow on "getting there first" as the capitalists of our country were at capturing Cobalt claims. With hardly an exception, farmers in this neighborhood are still following methods of ten or twenty years ago. Yes, and a well-known cattle-breeder and importer, not many miles from my home, who works a farm of several hundred acres, can hardly be called an exception, although he grows better crops than his neighbor. How can he, when he buys a lot of millfeed, etc., while his neighbors are selling their grain and hay. Farmers, as a rule, watch their neighbor and do exactly as he does, and many are still in the ruts of their great-grandfather, as it were, and it will take something like the split-log drag to level those ruts.

Bruce Co., Ont.

J. W. Y.

### Medium Strength Flour for Bread-making.

The results thus far obtained in our work at Ottawa, said Cerealist Chas. E. Saunders, before the Canadian Seed-growers' Association in June, 1906, seem to place Red Fife and White Fife at the head of spring wheats for strength, and Turkey Red at the head of the winter wheats.

While the strongest flour usually commands the highest price, those who grow wheat for their own use would do well to remember that excessively light bread is not always preferred, and that very strong flour usually makes tough and indigestible pie-crust and inferior biscuits and cake. There are, therefore, some sound arguments in favor of using flour, for general household purposes, made from wheat of good rather than the very highest strength. But, of course, the strongest wheats will always be in demand for mixtures with those which are distinctly weak; and wheat grown for export should therefore be of the highest possible strength.

## THE DAIRY.

### Our Co-operative Cow-testing Associations.

One of the most important recent developments in Canadian dairying is the interest and action taken in the private and co-operative testing of dairy herds. For years back a few enterprising dairymen have been quietly testing their cows, weighing each cow's milk twice a day and having occasional or periodical samples tested with the Babcock test to ascertain the percentage of fat, thereby enabling the owner to calculate, at the end of the year, how much milk and butter each cow had produced.

But while this is exceedingly profitable work, and while volumes of evidence were adduced to prove the great importance of every dairymen carrying it on, the fact was that only an odd one here and there could be persuaded to undertake it, and some who did lacked perseverance to continue long enough to learn positively which cows were paying for their keep and which ones were running board accounts.

To get people started in this most important work, Prof. J. H. Grisdale, Agriculturist of the Central Experimental Farm, Ottawa, publicly offered and still offers to send out printed blanks for the keeping of daily records, and quite a few dairymen have taken advantage of the opportunity, to their great benefit, as our correspondence last spring on the subject of milk records plainly showed. But still the rank and file of dairymen were not interested to any extent.

As a means of getting people to take notice what a wide difference there is between the best and poorest cow in almost every herd, the Dairy Commissioner's Branch of the Dominion Department of Agriculture began, in 1905, to make 30-day tests of cows in various factory districts. So striking were some of the figures, that it was a comparatively easy matter to persuade dairymen in the more progressive districts to organize themselves into co-operative cow-testing associations, after the pattern of those in Denmark, Germany and various European countries. The first one of these was organized at Cowansville, Que., early in 1906, and others have been formed during the year. The organization of these cow-testing associations and the duties of the members are very simple; and as the constitution and by-laws were drawn up according to forms supplied by the Department, they are uniform in the various associations throughout the country. The officers consist of a president, vice-president and a secretary-treasurer; along with three other members of a committee of management. The by-laws state that any person who will agree to keep a record of his individual cows during the whole milking period, to the extent of weighing the morning's and evening's milk on at least three days every month, and also take a sample for testing, will be admitted to membership. The members provide themselves with milk scales and sampling dipper, also a sample-bottle for each cow, and must deliver the samples to the place where the testing is done, as directed by the person in charge.

For the season of 1906, the Department of Agriculture at Ottawa, through the Dairy Commissioner, provided there are 20 members or 300 cows in one association, agreed to provide blanks for recording the weights of milk, do the testing once a month, compile the figures, and prepare a report at the end of the year. We are informed that the Department will continue this assistance during 1907.

The Dairy Commissioner intends to compile a complete report of the records for 1906 as soon as the returns are all in, and some eloquent figures will, no doubt, be forthcoming. So far it has not been thought advisable to insist on the keeping of records of feed consumed by the cows, though the Dairy Commissioner's Branch is trying to educate the members up to the point where they will be sufficiently interested to take up that work in addition to recording the weight of milk.

Mr. Ruddick writes us that he is receiving a great many enquiries, and already some half dozen new associations have been organized to begin operations as soon as the cows freshen next spring. There are prospects of at least 30 associations being in operation in 1907. The amount of good accomplished by these will be enormous, and every enterprising dairymen should take steps to have one organized in his locality this winter. A line to J. A. Ruddick, Dairy Commissioner, Department of Agriculture, Ottawa, will secure the blanks and dipper to help start the ball rolling.

It is thought that labor can be made more efficient by the use of the

### The Practicability of the Milking Machine

[Address delivered by H. H. Dean, Professor of Dairy Husbandry, O. A. C., Guelph, in the Lecture-room of the Ontario Winter Fair, December, 1906.]

To show you the interest that has been taken in this question, it is said that over 150 patents have been taken out in the United States since 1872.

Before we can understand this question we must know something about the physiological processes that go on in the secretion of milk. The secretion of milk is a mystery, so far as we know. We believe the milk is partly made in the breaking up of the cells which make up the cow's udder, partly by filtration. Some scientists say there is a fermentation going on in the cow's udder, producing milk. It is altogether likely it is the result of these two combined processes—the breaking up of the cells of the udder and the filtration from the blood of the material required for the milk.

So far as I can see, there is no reason why cows might not be milked satisfactorily by machinery.

In the mechanical problem, three questions have presented themselves: Shall we milk cows by sucking, as the calf does, or shall we do it by pressure, the hand method of milking—or combine these two?

If I were to offer a personal opinion, my judgment would lead me to conclude that the successful milking machine will be one which imitates hand milking. Why do I think so? Because all the best dairy cows that the world has seen produced have been developed by hand milking and not by calf sucking, and the tendency is that, in every case where the calf sucks the cow, she dries up much quicker than when she is milked by hand. Therefore, I say look for the development of the milking machine that imitates the hand milking of the cow.

A milking machine, to be of service, must be simple, cheap, durable, easily cleaned, require the minimum amount of power, time and labor of operating it, and a person must be able to milk from four to six cows at once. These are what I consider essential things in the mechanical milking machine. At the College we have had practical experience with three or four different kinds of milking machines. I have, personally, taken a great interest in this question. Any man who approaches a subject of this kind, should approach it free from bias as far as possible. He ought not to have any set opinions. If I have had any set opinions at all, they have been in favor of the milking machine. The first machine which we had any experience with was called the Murchland. We experimented with this machine until we were satisfied it was not a practicable machine for milking cows, and we threw it to one side. I had the pleasure of meeting Mr. Murchland last year at Glasgow, at the Highland Show. I had met him ten years ago, and at that time he was very enthusiastic about the machine, but when I saw him at Glasgow he was not quite so enthusiastic.

The next machine we had a practical experience with was the Thistle. I have here the milk cup of that machine. You will notice that inside the cup it is like a calf's mouth. There are two lips and a piece like the tongue of a calf, and it is supposed to imitate both hand milking and calf sucking, so that the cow would think she was being milked by hand and sucked by a calf. The difficulty was with the cleaning of that machine, and, after spending a good deal of time and money, we laid that to one side.

The next machine we had experience with was a sort of roller, rather four rolls and a rubber flange, and you set this up under the cow and turned the crank, and these rollers press against the cow's teat and squeeze the milk out. That would be all right if our cows' teats were exactly the same size and hung exactly the same length from the cow's udder, but as they do not, the machine was not a success.

The next machine was the B. L. K. Milker—I have one of them here—for milking two cows at once. First the air is exhausted from the pipes above the cows, and then these cups are put on the cow's teats. As soon as the cow's teat is inserted in there, the pressure of the atmosphere being taken off, the milk at once begins to flow. There is a sight-glass which enables you to see the milk as it passes into the machine. On top of the machine there is a regulating valve which gives an alternating pressure; that is, the pressure is not constant, as it was in the case of the Murchland. You have a pressure equal to about half the atmosphere coming on the cow's teat, and, by means of this valve, a certain amount of air is allowed to come in. The milk comes down into the teat, and from there into the cup and down into the pail. We have tried to give every consideration to the machine, and I would like to mention, at this time, my personal indebtedness to Mr. Wood, our herdsman, for the large amount of time and the care and patience he has exercised in the operation of the machine. Personally, I have not had time to watch all the details, and I am not mechanically in-

clined, and I would not go to the bother of fussing with the machine in the way that he has done. We put the machine in our stable at a cost of \$250, or about half the regular price of the machine. The manufacturer gave us a cut rate on the machine. We began operating it on the 1st of January, 1906, and we have had 11½ months' experience with the machine. During the month of December, 1905, fifteen cows were milked by hand, and in January the same cows were milked with the machine. They gave in January 1,351 pounds less milk when milked with the machine than they did in the month of December when milked by hand. They gave 47.22 pounds less milk-fat, equal to about 55 pounds of butter, or 3½ pounds less butter per cow during that month, when milked with the machine, than they did in the month of December, when milked by hand. We expected that. After milking them during the month of January with the machine, on the first of February we selected four cows to make a special test, and they were milked from the first of February to the 14th with the machine, and Feb. 15th to 28th by hand. For the period from February 1st to the 14th, and from March 1st to 14th, when they were milked by the machine, we found that the average fortnightly production was 483.7 pounds; and when they were milked by hand, from February 15th to the 28th, the average production in the two weeks was 503.5 pounds per cow. Three out of four cows gave more milk when milked by hand than they did when milked with the machine. In nearly every group we had certain cows that seemed to milk as well with the machine as by hand. The four cows, during the two weeks, gave 79 pounds more milk and 6.89 more fat when milked by hand than they did when milked with the machine.

From March 30th to May 10th three cows were selected, and these cows gave 80 pounds more milk when milked with the machine than they did in the two weeks when milked by hand, and we were quite well satisfied at that time that the machine was giving us fairly good results, and for a long time we allowed the machine to milk practically all our cows. I was, personally, very much pleased with the results, but, about the 1st of July, we found that a number of our cows were dropping rapidly in the milk, and we were obliged to take several cows off the machine and milk them by hand, because they would have dried up altogether. I am not going to make any positive statements, because the man who makes the most positive statements about things is the man who knows least about them. The man who goes to study a question of this kind needs to be very careful. When the cows were on pasture we made a similar experiment to the experiment made in the winter. Seven cows gave 7½ gallons more milk in two weeks when milked by hand than they did, averaging two periods, when milked with the machine. Five cows gave more milk when milked by hand, and two cows gave less milk than they did when milked by the machine. There were four cows in the herd that were being milked by hand during all this time, in order to compare the results as to the effect of advancing lactation. These four cows had been milked all summer by hand, and gave 154 pounds less milk during the hand-milking period, as compared with the previous two weeks when the seven cows were milked with the machine, showing that, in all probability, the machines were not doing as good work as hand milking in maintaining the milk flow. When we average the periods before and after hand milking, these four gave 29 pounds more milk in the middle period; the seven machine-milked cows gave 75½ pounds less milk in the same period.

In the middle of October we wrote for an expert to come and tell us how we could get any better results from our machine. We were not satisfied. He recommended manipulating the cows' udders. I am satisfied there is little or nothing in the manipulation of the cow's udder, although we followed directions on this point to meet the manufacturers' views, and you will notice that in the majority of cases where you begin that the cows will at once begin to contract the muscles of the abdomen. Some say that the muscles of the abdomen have no connection whatever with the ducts from the lobules where the milk is secreted. My own impression is that the cow can close these ducts and usually does it by contracting the muscles of the abdomen. We made some experiments to see whether we could produce better results by manipulation of the udder, and, in order to do that, we milked some of the cows with the machine and some by hand, and we came to the conclusion that there was little or nothing in the manipulation of the udder, except it seemed to prevent your getting the stripplings after you stopped milking with the machine. On the 1st of November ten cows were again put on an experiment for two weeks. Eight out of the ten gave more milk by hand, and one gave the same amount by hand as with the machine, and one gave less milk when milked by hand. Certain cows in every group seem to give as good results with the machine as by hand.

Summing up the whole question of the experiment in November, we find that the cows gave 384 pounds less milk on the machine than they did in the same time by hand milking. We find, also, that, comparing inexperienced milkers with the machine, there was not very much difference. Our herdsman is an expert milker, and he can always get from two to five pounds more milk out of a cow by hand than with the machine, and usually from one to three pounds more than an inexperienced milker can get, and this would lead us to believe that with some cows it is possible you might get as good results from the machine as you would get from a person inexperienced as a milker.

My conclusions are:

First.—In the four comparative tests which we have made, in three out of four the cows gave more milk when milked by hand than they did with the machine. In one test they gave more with the machine than they did by hand.

Second.—Inexperienced milkers may get no more milk from certain cows for a short period than is got with the machine, but a good hand milker will always get more milk than will the machine.

Third.—Cows tend to dry more quickly when milked with the machine. No. 15, in 1905, milked for 320 days; in 1906, 230 days, or nearly 100 days less when milked with the machine. No. 17 milked 361 days in 1905, and 217 days in 1906. No. 16 milked 287 days in 1905, and 233 days in 1906. We estimated that these three cows in our herd gave 10,118 pounds less milk when milked by the machine than by hand, and that amount of milk was worth at least \$100.

We had certain young cows—heifers—that had hardly ever been milked by hand, and they gave us very good results. We have one two-year-old heifer that has milked this whole year with the machine that has given us over 8,000 pounds of milk. This leads us to believe that it might be possible that young cows, if they were milked with the machine from the start, might give satisfactory results. Our experience leads us to believe that the most satisfactory results are likely to be got from young cows that have never been milked by hand.

Special care is needed in the cleaning of the machine. We followed the directions of the manufacturer as closely as we could, and I have no hesitation in saying that the directions given by the manufacturer will not clean the machine. They have to have more care than is recommended by the manufacturer to get them ordinarily clean; and to keep them satisfactorily clean, most of the parts that come in contact with the milk must be boiled once a week, and they ought to be boiled every day.

So far as I can see, at the present time, it will not pay a man having from ten to twenty-five cows to invest \$500 in a milking machine. The man who is milking from fifty to seventy-five cows may very well consider the milking-machine question, especially if he finds it difficult to get suitable hand labor.

I assume full responsibility for what I say. There has been a tendency to throw discredit upon the work which we have done, and there has been an effort to try and frighten us with regard to this question. I want to say to the people here that we care not for any man. We give what we believe to be the truth, and when the dairymen of this country do not want the truth, there will be a vacancy upon the staff at the College. We care not for any manufacturer, or any dairy paper, or anyone else; we stand straight on that question. (Applause.)

Sam Jones said what the United States needed, more than anything else, was an unbulldozable, unbribable, unpurchasable standard of manhood, and the man who has not got courage to stand up and defend his work, is a man who should not be put in a responsible position in this country. We have tried to give what we believe to be the truth in reference to this matter. It is one of the most difficult questions we ever tried to get full light upon, because the question is so complicated. You have the question of milk secretion, which is more or less of a mystery, and then you have to take into account that the cow might have done differently or she might not have given you the same results if you went at it in a different way.

So far as I can see, at the present time, the manufacturers have to improve, to a large extent, the milking machine before we can say that it is practicable on the average Ontario dairy farm.

The following additional points were brought out by Prof. Dean in the discussion following his address:

Why some cows gave more milk when milked with the machine than by hand, is a question it is impossible to answer satisfactorily.

In reply to a question whether experiment in Wisconsin had not indicated an advantage in manipulation of udders, Prof. Dean said: So far as I remember, the results got at Wisconsin and Cornell were slightly in favor of manipulation. In talking over this matter with Prof. Woll, he was not enthusiastic about manipulation, and I understand the practice is not followed at the

Wisconsin Station. So far as I can see, there is nothing in the manipulation of the udder, and any of you who wish to try it at home should note the effect upon the cow, especially with a nervous cow. Just the moment you begin it you will notice these muscles of the abdomen contract, and, with the majority of cows, they will not give their milk down.

Taking into consideration the labor necessary to clean this machine, it is a labor saver with a large number of cows, but not with a small herd.

With reference to the point of admitting visitors to the barn, I know the manufacturer makes a strong point of the fact that we allowed visitors into our stables. At first we thought visitors would have a bad effect upon the cows, and for some two or three months we had notices up in our stables saying that visitors were absolutely prohibited from entering the stable during the milking time; but after a very careful study of the question, we found that our cows practically paid no attention whatever to visitors. They are so accustomed to visitors, they being there every day, and, as a rule, they give no attention to visitors; and so far as our own herd goes, I feel quite satisfied that visitors had no effect whatever upon them. I also had a letter from one of the professors on dairying on the "other side," wherein he said that, so far as he knows, visitors have no effect upon their cows. He made the statement in his letter that the cows even milked better when visitors were present than when they were not there.

With reference to the complaint that we had used too much power on the machine, it is true we did have a couple of pails collapse. You will notice the manufacturers are now sending pails out with that ring around them. The first pails we got did not have that rim around there, but when two of the pails collapsed they sent these over as a means of strengthening the pails. They were satisfied their pails were a little bit weak, and they recommended us to put this circle on in order to strengthen the pails. The pressure is got in this way, the air is exhausted from the pail, and, of course, unless it is strong it will collapse; and the first pails they sent out were not strong enough to withstand the pressure of the atmosphere.

### The Canadian Record of Performance.

Elsewhere we present some timely information on co-operative cow-testing associations in Canada, their organization, objects and methods. As pointed out, these have been organized largely through the effort of the Dairy Commissioner's Branch of the Dominion Department of Agriculture. They are for the testing of common or grade herds, and the results obtained concern no one but the owners of the particular herds tested, and others who may wish to follow their example.

A quite distinct line of work has been undertaken by the Live-stock Branch of the Department, viz., the official testing of pure-bred cows, whose owners wish to qualify them for entry in the breed associations' Record of Performance. This work is even more important than the other, because it goes right to the fountain-head of stock improvement. It concerns not merely the owners of the cows tested, but every dairyman who depends on pure-bred sires—as all do, directly or indirectly—for the improvement of his herd.

As most of our readers are aware, the "Advanced Register," "Record of Merit" or "Record of Performance," as it is variously called, is a register which several progressive breed societies in the United States and Canada had adopted some time since, according to details of their own devising. Let it be clearly understood that none of these is intended to take the place of ordinary herdbook registration. It is a supplementary or sort of duplicate registration. A cow entered for it must first be recorded in the regular herdbook of the breed to which she belongs.

The American Guernsey Cattle Club has an Advanced Register, based on accurate tests of milk and butter-fat produced in the cow's own stable, but officially supervised by occasional visits from a representative of the nearest experiment station.

The Canadian Holstein-Friesian Association has a well-established Record of Merit, based on official weekly or monthly tests of milk and butter-fat. The Canadian Ayrshire Breeders' Association had been discussing some similar action when the Canadian National Live-stock Records system was established. For reasons of their own the Holstein men declined to come into the National Records scheme, but the Ayrshire, Jersey and Guernsey breeders' organizations have done so. For and through these breed associations the Department of Agriculture has undertaken the work of official testing, according to rules agreed upon. The conditions are that each breed association must publish in connection with its regular series of herdbooks a "Record of Performance," in which are recorded the names and performance of cows that have made officially-supervised yearly records of milk and butter-fat above a certain minimum standard set by the respective breed associations themselves. In the case of the Ayrshires this is as follows:

	Lbs. milk.	Lbs. butter-fat.
Two-year-old class	5,500	198
Three-year-old class	6,500	234
Four-year-old class	7,500	270
Mature class	8,500	303

The Jersey men have adopted the same minimum of milk production, but have gone one better than the Ayrshire breeders, by demanding ten per cent. more butter-fat.

The minimum standard set by the breeders of French-Canadians corresponds to that of the Ayrshire breeders, so far as fat is concerned, but they require twenty per cent. less milk. The standard adopted by the Canadian Guernsey breeders has not been announced at date of this writing, and we are not aware whether they have set one at all or not, but we are advised that they are taking hold of the Record of Performance scheme, and will doubtless formulate their standards in due time, if they have not already done so.

When a man wishes to enter a cow for official testing, he applies to the secretary of the association of the breed to which she belongs. Of course none but a pure-bred is eligible, and rules insure that every cow entered must be a regular breeder. Upon receipt of application by the secretary, the Live-stock Branch of the Department of Agriculture forwards the owner blank forms, and arranges for official inspection. It is the duty of the owner to weigh every milking of the cow entered for 365 days, and keep a record on forms supplied. About the middle of the month he takes samples from each milking for three successive days, and expresses them to the official tester. At the end of the month he must report (a) a record of the daily milk yield for the month; (b) an estimate of the amount and kinds of feed given, and data containing stabling and care.

This latter information has nothing to do with the cow's eligibility for registration, but the figures are desired by the Department for purposes of information.

At the end of the year the owner sends, on forms furnished for the purpose, a compiled record of the year's milk record, taken from the monthly reports, and sworn to before a notary public or justice of the peace.

An inspector visits each stable at least four times a year at irregular intervals and unannounced. He stays two days, weighing each milking of every cow under test, and taking samples for a Babcock test of each cow's milk. These samples shall be the basis for computing the record. He takes a copy of the owner's milk record for the two days immediately preceding his visit, and then promptly reports to the Live-stock Branch at Ottawa. In effect, his visits are an assurance to the public of the accuracy of the records. The Live-stock Branch has the testing done by a qualified tester, the expense of this being charged to the breed association. At the conclusion of the testing period a report of the performance of each individual will be forwarded to the secretary of the breed association. There are nearly a dozen Canadian breeders of Ayrshires with cows now under test, and so far as we have learned the plan is working well. The importance of the work is far-reaching. By setting up in breed circles a standard of performance instead of the old standard of appearance, it will tend to the improvement of the various breeds in point of utility. Again, by showing the dairyman where he can get sires from good milking stock it will be a great boon to him; and by eventually discounting pure-breds of unproven merit it will reduce the sale of inferior dairy bulls, put a premium upon performance, and thus work great good to the conscientious breeders who have been striving to breed and disseminate useful dairy stock.

### Dairying in Muskoka.

In renewing my subscription, I beg to say that "The Farmer's Advocate" is highly appreciated by all the members of our family. I have lent my bound volumes to some of the young men in the neighborhood, in hopes that they will learn to appreciate its contents and subscribe. Your editorial for 1907 is excellent, and the Home Magazine is most useful and entertaining.

After a residence of 25 years in Muskoka, I believe dairying is the most profitable branch of farming. Hay and oats are grown on the heavy land, and corn and roots can be grown on the light land; both of the latter were very good during the past season. Fodder corn will grow eight and ten feet high, but, of course, does not ripen. We have a small kind that ripens every year. Wishing "The Farmer's Advocate" long life and success.  
JOHN H. COLDWELL,  
Muskoka, Ont.

Editing a newspaper is a nice thing. If we publish jokes, people say we are rattle-brained. If we don't, we are fossils. If we publish original matter, they say we give them not enough selections. If we give them selections, they say we are too lazy to write. If we don't go to church we are heathens. If we do go we are hypocrites. If we remain at the office, we ought to be out looking for news. If we go out, then we are not attending to business. If we wear old clothes, they laugh at us. If we wear good clothes, they say we have a pull. Now, what are we doing? Just as likely as not some one will say that we purloined this from an exchange. So we do.

### Scotch Experience with a Milking Machine.

Not to discount the experience of Prof. Dean at the Ontario Agricultural College, where, after a year's test, the milking machine has been found not as yet a practical success for the Ontario farmer, but merely to present a bit of additional experience on the milking machine, we publish the subjoined excerpt of a lecture by Alexander Miller, Huntly Farm, Dundee, Scotland, before the Glasgow and West of Scotland Agricultural Discussion Society.

"It is fully ten years since I first began to use a mechanical milker.

"The 'Murchland' was my first venture, and I worked it continuously for some years, with varying success. It milked the cows fairly well, but it was so troublesome to keep clean that it created labor rather than saved it. Then, it has a peculiar effect on the cows' teats. Working by continuous suction, it caused the skin of the teat to adhere to the metallic lining of the cup, and thus interfered with the blood circulation, so that when the cups were taken off the teats were often blue. However, it worked away quietly, and never spoke back—and for that I liked it—so I kept it going, hoping against hope that something better would turn up. When at last the Lawrence-Kennedy machine appeared, with its pulsating movement, I saw at once that it solved one working difficulty—the interference with the blood circulation. The 'catch' and 'relieve' of the pulsating movement—so closely resembling the action of the calf's mouth sucking—made it evident that there would be no more blue teats, at any rate, and the rubber tubing of the Lawrence-Kennedy machine looked as if it would be much easier kept in order. So I had it fitted up experimentally at Huntly Farm, and, after three months' trial of it there, I was so well pleased with its work that I ordered an installation for my other farm, and for almost two years now I have had this machine working twice daily on two separate farms, and managed by two separate staffs, milking twelve cows at a time on the one farm, eight at a time on the other. I have thus been having experience in duplicate form, and, having been for years in the habit of keeping an accurate note of the milk brought from the out farm, I am in a position to compare results with years of hand milking. Taking the year ending 15th November last, and comparing it with the outturn of 1904, with the same number of cows milking, viz., fifty, and fed and treated in pretty much the same manner, I find there is a balance in favor of the machine period of 187 gallons. When I compare the average of the four years before 1904, the balance is 196 gallons. This is not very much per cow if spread over twelve months, but it is on the right side. I am not able to give such accurate figures for Huntly, as for a time some were milked by hand and the milk was all totalled together, but I can compare the outturn of butter during twelve months of machine milking and twelve months of milking by hand, and here again the outturn is slightly in favor of the machine period. When I made my calculations previous to ordering an installation, I did so on the supposition that possibly the machine might do almost as well as hand milking, but the result has bettered my expectation. Then, I find another point gradually coming into prominence. The cows actually thrive better when machine milked. Almost all take kindly to it from the very first. It is so regular and gentle in its action that even the most nervous cow soon forgets her nerves. The cow knows exactly what to expect when the machine is set agoing at her teats, but it would be a very knowing cow that could tell beforehand what to expect from a band of hand milkers, especially if there had been some quarrel in the kitchen or on the way to the byres. Of course, with two separate installations, rendered necessary by the distance between the farm steadings, I am not favorably placed for working with the utmost economy. I have two engines to keep going where one could suffice, and I have one operator and one stripper more than would be necessary if all the stock were housed together, but my experience enables me to see that three operators working nine machines, and two strippers, would easily milk 150 cows in an hour and a half. There is thus a saving of ten milkers. Against this, my coal account for the year is £15 more, and repairs and renewals total £8 7s., so that there is a very large balance to make good depreciation of plant and meet the interest on the first cost."

We give the above for what it may be worth, knowing nothing of the author nor the probable value of his experience. We would, however, advise any who reads this article, to peruse also the experience of Prof. Dean at the O. A. C., which was published before the Ontario Winter Meeting, and which is published in full in these pages.

DECEMBER

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### Maine Dairymen Meet.

The annual meeting of the Maine Dairy Association was held at Farmington, Dec. 4-6, when there was a large number of representative dairymen present, and the meetings were characterized by a spirit of enthusiasm in a more noticeable degree than ever before. The speakers were greeted with applause, paid the compliment of the closest attention, and the questions asked showed that the application of the lessons was reaching home.

An innovation this year was the presentation of eleven prize essays upon dairy subjects by students from the University of Maine, in response to the inducements offered last year by the Society and others. These essays showed careful preparation not only of the subject matter in hand, but of diagrams illustrative of the points they wished to bring out. The entering class bore off their share of honors, and all the young men were highly complimented both as to scholarship and behavior, and we believe the State of Maine has reason to be proud of her agricultural students. Prizes are to be offered the coming year.

#### BUTTER SCORES.

In the exhibit of butter, there were no entries for fancy display. The following summary of entries, with the score, will be of interest: Dairy prints, 21 entries, average score 94; dairy tub, 1 entry, average score 94; creamery tub, 5 entries, average score 95½; creamery prints, 5 entries, average score 96½; general average 94½.

The highest score was 98 points, secured by the Waterford creamery. This plant also won the sweepstakes prize of \$10. "The Pastures," Belfast, scored 97½ for dairy prints, which was the highest marks in that line. Orrin Bent, of Boston, was judge. Maine has raised her average score over one point since last year, and the score obtained by the Waterford creamery has not been exceeded by any State in New England.

Hon. A. W. Gilman, Commissioner of Agriculture, is jubilant over the advance in the Maine product since the employment of the expert dairy instructor, S. C. Thompson, for which innovation he was largely responsible, and the Maine Dairymen's Association is a unit in its work for progress along this line, and claims its share of the honor in this direction.

Maine is to take another advance step—the establishment of its first Cow-test Association. This was due to the influence of an able paper presented on the subject by Mr. Thompson. The discussion was general, and only those who could do the work for themselves questioned its advisability. The advantages of higher production and a better class of cows were acknowledged to be the result where associations existed.

The Society endorsed the resolution of the Pomological Society, which is to petition Legislature for an appropriation to purchase a farm for experimental work in orcharding and crop production. The resolution relative to the sterling worth of the late Hon. H. C. Adams, of Wisconsin, through whose efforts an increased appropriation for agricultural colleges and experimental stations was obtained, received hearty endorsement, and financial support was given a proposition to raise part of the fund Maine is to contribute towards liquidation of the mortgage on the home of this gentleman. It was deemed a privilege, in this way, to recognize what he did for the agricultural interests of Maine.

A new device exhibited was the Callette milking machine, exploited by F. A. Converse. It is being tried by one or two Maine people, and is said to do very good work; yet the majority, while they are all the time looking for a practical machine of this kind, are a little skeptical, and not quite ready to introduce mechanical milking into their dairy work.

#### BOVINE DISEASES.

Dr. H. H. Newcomb, of New York, explained the nature of a vaccine designed to render cattle immune from tuberculosis, and to cure when in the incipient stage. Such a preparation is very much needed, and it is hoped that time will prove that this possesses all the merit claimed for it by its discoverer.

The addresses of the speakers covered five lines of work: The character, selection and handling of the head of the herd; bovine diseases, their way of identification and treatment; building up a dairy herd; economical feeding for profitable production; and relations existing between creamerymen and their patrons. All dealing with these subjects were considered high authorities; in fact, the best speakers New England and the middle States had to offer.

According to Prof. Gowell, University of Maine, the character of the bull and his selection depended upon the line of work to be done. The good points of his ancestry, his own individuality and that of the cows with which he was mated, played an important part in the future of the herd. As to his handling and care of the herd, Prof. Gowell stood for plenty of pure air, especially in winter, and exercise at all times. A heavy iron rod or wire, with a sliding ring or pulley, to which the animal should be fastened by chains

from the nose ring, the whole device strongly secured, was suggested as a means of either outdoor or indoor exercise. Having a bull that produced a good lot of excellent cows, he would keep him, inbreeding somewhat, but not far enough to interfere with the strength or size of his get.

"Bovine Tuberculosis" was Prof. Russell's theme. His remarks covered description and treatment of the disease, tuberculin test, and the manufacture of the article, method of stamping out the disease, fumigation of the stable where it has existed, and building up a new herd from the diseased. This last point is worthy of slight elaboration. After segregation and fumigation of original quarters, the calves dropped by the tuberculous herd are at once taken from their dams and brought up on the milk from the affected cows after it has been sterilized at a high temperature. They develop into healthy cattle, and the herd is kept up and the blood perpetuated. This is done in Denmark, where 50 per cent. of the cattle are tuberculous, and killing them outright would entail heavy loss. It does not appear to be practicable under ordinary conditions, because of the extra work and expense of providing two sets of attendants and double paraphernalia, but is especially desirable where the perpetuity of a certain strain would be advantageous.

Dr. Smead showed how 80 per cent. of abortion was due to failure to remove the cow and all evidence from the herd at once, not because of the abortive germ—for it was not present—but by reason of sympathetic excitement incidental. He spoke of the use of a syringe to flush the udder in case of garget, and the introduction of the air syringe to fill the udder with air in cases of milk fever, this method of treatment having proved efficacious in 90 per cent. of the fever cases. A cure for germ abortion was also given. Sterility and a tendency to abortion were ascribed to abnormal stimulation of the reproductive organs at the expense of the reproductive. Dr. Smead described a new disease, the germ garget, which has just appeared in New York. It is of the nature of ulcers, and affects either the outside or the inside of both the bag and teats. Once inside the bag it is incurable. Its progress can be stayed by the use of carbolic acid, 2-per-cent. solution, externally, and the injection of carbolyzed oil into the teat. Promptness is necessary.

#### DAIRY-HERD IMPROVEMENT AND FEEDING.

Rev. E. F. Pember spoke on building up a dairy herd. Taking the ground that those present not only were interested in the dairy business, but had full confidence in the dairy cow as a profitable investment, he said that, while in some portions of the State beef stock might be raised to advantage, the majority preferred to depend on the dairy cow, while the dual-purpose cow he characterized as a dream, and stated that progressive farming had placed a marked line between beef and dairy breeds. Present chaotic conditions of the farmer's herd needed improvement, and he would begin, if the purchase of a pair or trio of pure-bred stock was an impossibility, by buying a full-blood sire of the breed selected and mating with cows of high production; in fact, he considered it a crime to keep or use a "scrub" bull, sowing seeds of degradation from which a herd would not recover in generations. In selecting the breed, there would enter, among other things, the elements of preference, climate, variety of food which can be furnished, kind of barn where it will be kept, and the market for disposition of the product. Other points contributing to success in this line were restraining from inbreeding by purchasing a new sire for the heifers from the first; waiting until the heifer is nearly or quite two years old before breeding her, which is a strong safeguard from disease; proper feeding, coupled with kindness in handling and comfortable quarters, for the cleaner and more perfect the breeding of a cow, the more sensitive she becomes to ill-treatment and the more quickly she responds to kindness and attention; selection of the best cows, as shown by weighing and testing of the milk; attention to the health of the herd, which can be largely maintained by an abundance of pure air and sunlight in connection with good food and water; last, what perhaps should have been named first, love for the cow and interest in the work. If willing to look after these details, the victory is won.

Economical feeding for profitable production involved a careful looking after the individuality of the cow by means of scale and test and a careful consideration of the merits of concentrated foods, together with the influence of their constituent parts towards maintaining the vitality and keeping up the flow of milk. The amount of these given should be reduced to lowest terms by raising everything possible on the farm. This last point emphasized the value of clover, oats and peas, roots and ensilage.

Messrs. F. A. Converse, of Buffalo, N. Y., and George A. Smith, dairy expert, Geneva, N. Y., were the speakers who handled this line of talk.

#### RELATIONS WITH PATRONS.

The reasons for dissatisfaction between dairy-

men and creamerymen were threshed out, and the readiness of those creamerymen present to give the dairyman a square deal and investigate and remove all causes of complaint, appeared to be well received, and it is hoped that friction between those whose interests are certainly identical will be relegated to the past. It is a significant fact that butter from the creamery appearing to have the most hearty co-operation of its patrons scored the highest at this conference.

Officers for the coming year are: F. S. Adams, Bowdoinham, President; W. G. Hunton, Readfield, Vice-president; L. W. Dyer, Woodfords, secretary; Hon. Rutillus Alden, Winthrop, Treasurer and Member of the Experiment Station Council; W. K. Hamlin, No. Waterford (manager of the creamery), Trustee.

## POULTRY.

### "How Much Poultry Can Profitably be Kept on a Hundred-acre Farm?"

[Address by J. W. Clark, Cainsville, Ont., before the Ontario Provincial Winter Fair, Guelph, 1906.]

The conditions are so varied that it is difficult to arrive at a conclusion as to how many poultry should be kept on a hundred-acre farm. There is no doubt the farmer can raise poultry better and cheaper than anyone else, because he has a lot of waste foods in his fields that poultry can gather. It would be useless to try to raise any quantity of poultry unless one had the proper help to look after them; you also require a suitable place.

The farmer should have, at least, on one hundred acres, 100 hens. He would require a building about 12 x 60 to accommodate these; that is, putting about six square feet to each hen, allowing a feed room at the end. It would be necessary for him to raise at least 300 chickens in order to select 100 pullets each year. There is a great deal in selecting the proper type. Then he would require suitable conditions for raising these chickens. He would require an incubator to hatch them out. It would be impossible to hatch them early enough with hens. As a rule, hens do not get broody until May or June. Three hundred chickens would require a lot of labor, especially where they are fed by hand; but, under the new system of hopper feeding, much of the labor is done away with. When the chickens are put in a brooder they will require hand feeding for a few days, and after that you can put in a small hopper.

#### CONVENIENT SYSTEM OF FEEDING.

As soon as they are large enough to put in a colony-house, you can put in a large hopper that will hold a bushel and a half of feed and allow them to go and help themselves, and you would require to fill it only once a week. I have raised between three and four hundred this summer, and I can say, from my experience, that the chickens have done far better when fed in this way, because I was able to get them away out in the orchard, and I gave them plenty of range. I think an orchard is an ideal place for chickens. If you are raising fruit, you will find your apples will be practically free from the codling moth when hens are kept in it. After your grain has been taken off the fields, you can shut your colony-house up at night, and in the morning hook on the horse and draw it out in the field, and you will find they will soon pick up a lot of grain, and they will glean your fields, saving you expense, thriving and doing well.

#### WATER BARREL ON A STONE-BOAT.

The water problem is a great difficulty where you have to carry the water any distance in a small vessel. I have a barrel on a stone-boat, and have a tap in the bottom of the barrel, and I turn the tap so that the water will just drip. By keeping the barrel covered, the chickens can be watered with very little labor. The water in the barrel will last for two or three days. I think a large cornfield is a splendid place in which to turn chickens, especially young chicks. Prof. Graham raised a large number in a cornfield and gave them no water whatever, and they did remarkably well.

#### DUCKS, ALSO.

From fifty to seventy-five ducks should be raised on the average farm. You would have to have a male and two females to get this number. If you have a good local market, you should hatch them under hens. The duck is not profitable if kept over eight or nine weeks. Give them all the feed they will eat up to that time, and then market them. You can hatch enough under a hen to kill at one time. You will get probably from nine to twelve ducks hatched under each hen.

I have Orpington fowls, and I put twelve eggs under them. I would not risk that many early in the season.

#### AND TURKEYS AND GEESE.

The farmer with one hundred acres could also raise from 25 to 30 turkeys, and could also

raise from 20 to 25 geese. I do not think any fowl on the farm is more profitable than the goose, because she will live on pasture, and you can carry her over the winter with mangels or turnips. I would have the pasture divided off into lots, in order to give them a change. It is not necessary to have a pond; running water is all right if you have it.

DISCUSSION.

Q.—What do you have to pay for good wheat? per? A.—Wheat screenings.

Q.—Is not good wheat cheaper? A.—No, I would prefer the screenings; we can get them for a cent a pound.

Q.—What kind of food do you put in this hopper? A.—You can get it now for 70c., or 75c.

Q.—I would prefer the good wheat. A.—For young chickens I think screenings are the best; I do not mean half chaff and oats, and stuff of that kind.

Q.—Would you give them corn? A.—I do not think much of corn for young chickens.

Q.—Do you only put one kind of grain in the hopper? A.—Yes.

Q.—Do you put in any meat scraps or anything of that kind? A.—Not when they are running out; I give them all the milk they want.

Q.—What is the effect of feeding too much corn? A.—It is apt to stunt them.

Q.—What kind of ducks do you raise? A.—Pekin ducks.

Q.—What do you do when you find half of them are taken by hawks? A.—When you are troubled with hawks, the only way I know is to shoot them.

Q.—Last year we hatched out 200 chickens and the hawks took 100 of them, and I offered a man \$5.00 to shoot the hawk, and he could not do it. A.—I have heard that a trap set on a pole is the best way to get a hawk.

Q.—What about rats? A.—My houses are built on cement foundations, and I have never been troubled with rats. My brooders are put up on runners, so that the cat can get under, and I have a fox terrier that goes around with me, and he hunts out the mice.

Q.—Can you tell us anything about a breed of fowls called Favorolles? A.—Yes, I have heard of them; they are good layers, but do not seem to be becoming popular in this country; they are a French fowl.

Q.—What would you advocate feeding for winter laying? A.—I would say a mash composed of 50 per cent. bran, a little corn chop mixed with milk and beef scrap. I would prefer green bone if you could get it.

Q.—I understand Mr. Graham kept chickens in the cornfield without water; what substitute did he have for water? A.—The dew is the only thing I know of. The chickens made remarkable growth. Milk is an ideal food for young chickens; I give them all the milk they want.

Q.—Is buttermilk a good thing for chickens? A.—I never tried it; I would not like to give it fresh.

Q.—What do you feed chickens the first few days after hatching? A.—I like the prepared chick foods that are on the market. If you haven't that, breadcrumbs and chopped eggs are good. Young chickens do not do well on sloppy food.

Q.—Then, you advocate dry food and dry water? (Laughter). A.—Yes; I do not say that I raise my chickens without water.

Q.—Would you recommend giving little chickens water when you first start to feed them? A.—Yes, I would recommend giving them water right from the start. I would give them all they want, unless they were very thirsty, then I would not let them gorge themselves. If you are feeding dry food, then you must give them water, but on soft food they do not require so much water.

Q.—Are your hens laying now? A.—Yes, I am getting a couple of dozen a day. I feed them the mash just before they go to roost.

Q.—Do you put pepper in the mash? A.—No.

Q.—Do you think it a good feed when you have zero weather? A.—On an exceptionally cold night I would take some corn and warm it, and give it to them before they went to roost.

Mr. A. G. Gilbert, Experimental Farm, Ottawa: I have no desire to intrude, but I think there is a very important phase being left out of Mr. Clark's address. I meet a great many farmers in going about this country, and they say: "It is all very well to talk about raising chickens in incubators, but at that time of the year, we are very busy plowing and other work, and what are we to do?"

A Member: Let me see if I can do it.

Mr. Gilbert: You are a bachelor, because you would never get married if you knew anything about what a woman is like. The crying problem, and the labor problem, and the problem of the boys and girls, why not be a farmer? I have tried that a long time, and I have found that boys and girls are a great deal better than you are. I will give you a few hints if you will take charge of the plowing work."

That way you enter into partnership with your sons and daughters, and you may inculcate in your children a love for the work and for the farm, and they may never leave the farm. Too many of our boys and girls wander away from the farm and never come back. (Applause).

GARDEN ORCHARD.

Horticultural Progress.

[Prepared for "The Farmer's Advocate" by Prof. W. T. Macoun, Horticulturist, Central Experimental Farm, Ottawa.]

VII.

SUGGESTIONS ON THE RENEWAL OF THE PEACH INDUSTRY IN NEW JERSEY.

Bulletin 197, by G. F. Warren, New Jersey Agricultural Station, New Brunswick, N. J., U. S.: The peach industry in New Jersey having declined during recent years, this bulletin was written by the Horticulturist of the New Jersey Station, with the object of encouraging the fruit-growers to plant more trees, and to care better for those they have. A large number of orchards in the States were visited and information obtained, which is presented in a practical way. Several experiments were also tried, the results of some of which are here published. As New Jersey is considered one of the best peach States, there must have been some important reason for the decline, and on enquiry it was learnt that this was largely due to the spread of San Jose scale, although lack of tillage, starvation of soil, borers, brown rot and leaf-curl all contributed to discourage peach-growers. It was found on investigation that where thorough spraying was done the insects and fungous diseases were kept under control. One sprayed orchard showed an increase in crop from 400 baskets in 1902 to 3,000 baskets in 1906. Mr. Warren believes that now is a good opportunity for a man who will take care of his trees to grow peaches, as the San Jose scale can be controlled by thorough spraying with lime and sulphur, and many of the growers who have not faith in spraying have become discouraged and do not care for their trees, hence prices are good. This applies in the Niagara district, where the growers in a comparatively limited area have to supply most of the large demand for Canadian peaches, and where peaches are now proving about the most profitable fruit grown there to the man who sprays thoroughly. The culture of the peach from planting of trees to the marketing of the fruit is dealt with in this bulletin. Three experiments of interest to Canadians were tried. In a planting experiment designed to show the effects of exposing the roots of the trees before planting the results were as follows; 44 trees were divided into four lots of eleven each:

	Number making good growth.	Number making fair growth.	Number making poor growth.
Lot 1, exposed 15 minutes, wet.	9	2	0
Lot 2, exposed 15 minutes.....	6	4	1
Lot 3, exposed one hour.....	6	3	2
Lot 4, exposed 1½ hours.....	3	5	3

While this experiment is not conclusive, it shows the advantage, as has often been pointed out to Canadian fruit-growers, of keeping the roots moist until the trees are planted. A good plan is to have a blanket to throw over the roots in the field.

In another experiment eighty trees were divided into four lots and pruned in different ways before planting. The results were:

	Number making good growth.	Number making fair growth.	Number making poor growth.	Dead.
Pruned to a whip.....	18	2		
Pruned to 1-in. stubs.....	17	3		
Pruned to 3-in. stubs.....	18	2		
Two-thirds top left.....	11	6	2	1

This confirms the advice given to Canadian planters to prune severely when setting. Some growers prefer pruning to a whip—that is, removing all the side branches—while others prefer heading back the side branches to one or two buds. The advantage of the former method is that there is a better chance of making a symmetrical head, while it is claimed for the other method that there is less danger of splitting later on when the new growth starts from the side branches near their base.

A third experiment was that of dipping the trees before planting in lime, sulphur and salt. No injury resulted from dipping tops in a mixture made with 15 lbs. lime, 15 lbs. sulphur, 15 lbs. salt and 45 gallons water, boiling for one hour with one-half to one-third of the water, and adding the other water cold. The trees are dipped but not let remain in the water. As a result of this experiment, dipping is recommended to New Jersey planters to destroy scale on young trees, but this should be done while the trees are dormant, although what injury was done in this experiment when the trees were starting to grow was very temporary.

He who either plants or prunes a peach tree is a public benefactor.

P. E. Island Fruit-growers' Convention.

Unpropitious weather—anticipated winter—greeted the Fruit-growers of Prince Edward Island, in annual assembly convened. A foretaste of it had very adversely affected the Maritime Winter Fair the week previously. It appears that one never knows when the clerk of the weather may project his chilling waves upon a Maritime coast. There should be little fear of midwinter weather till midwinter arrives; dear only knows how far the circle has been reversed. Certain it is that the most trying conditions are now being experienced down here by the sea, and everybody is growling his prettiest.

To the Island meetings, journeyed out from Ottawa Dr. Fletcher, Dominion Entomologist and Botanist, whose knowledge in those matters was to be laid heavy siege to, for there are many weed and insect pests getting into the horticulture, and field culture, for that matter, down in these quiet regions. To the Island, also, journeyed Prof. Macoun, Horticulturist at Ottawa, with much practical experience in experimentation to break to its good people. To the Island journeyed, also, the delegate representative of Ontario's nurserymen, anxious to restrain the hand of the Islander, raised to smite the whole importation trade, by the imposition of serious restrictions—trees untrue to name and of worthless quality and bad upbringing we'll have none of longer. To the Island, for participation in those interesting meetings, journeyed Senator Ferguson, after the adjournment of his Chamber—the worthy Senator who grows fruit successfully, and understands all about the business, undoubtedly. But none of them were properly hitched up to continuity in travel, and, wandering hopelessly up and down the mainland, they came readily to the conclusion that there was something in the regular plaints of the denizens of this country when shut up from the world and subjected to untold inconveniences. This telegram, sent by the professors from Pictou, gives the stranger a little idea of the heartrending side of things here:

Pictou, N. S., Dec. 10th, 1906.

Cannot reach Charlottetown in time for meeting. No Saturday boat from Point du Chere. Reached Truro at four Sunday morning, 14 hours late. Advised come here this morning. Cannot get boat till Wednesday. Cannot connect by Tormentine. Please convey regrets to meeting. Sorry there is no tunnel.

(Sgd.) FLETCHER AND MACOUN.

And what were the feelings of the inhabitants? Dr. Sam Johnston said that all Islanders were, from the very nature of the case, prisoners. Still, one chafes awfully under confinement. We can speak for ourself. When we arrived at Charlottetown to open the meeting, and received a batch of telegrams, of which the above is a sample, we confess to a feeling of the deepest and most abiding disgust. Even the assurance on every side, "There's nothing but the tunnel," couldn't arouse us. And as we say one, so we say all. You continentals may well pity us.

There was to have been a regular heart-to-heart conference this year. We hadn't called out the reserves. The papers bulletined were few, the set addresses, apart from the President's, fewer, and all the hard-and-fast features thrown overboard. A practical meeting, in which Fletcher would compare notes with us on bugs, and Macoun swap methods on tree culture, was all we hoped for, all we considered of consequence in the moment.

We had to go on with the work as best we could unaided, and we did. The President gave an extended report of the year's operations. He considered horticulture well enough along the highroad to success to talk plainly to its votaries. The time of indiscriminate effort in the work was over. Unless the planter knew what he was doing and strove to adapt it to the best methods, there was no golden glare ahead. Effort always tells; in fruit-growing, effort—strenuous, intelligent effort—was essential. And there was need of concerted effort. Co-operation was the duty of the hour. There was a prospect of substantial assistance from the authorities to equip the horticultural circuit—establish a plant to store, pack, jam, evaporate and cider apples—whenever we showed a disposition to help ourselves. If they wouldn't move Federally, Hon. Mr. Haszard expected Provincial support to this end. And we must restrain the wayward tree agent. Too many lamented blasted hopes throughout the Province. Bonds for good behavior was the panacea. Owing to the absence of the party of the other part, the precise form of coercion was withheld till they could show cause against its application.

The fruit show in connection with the Fair, despite a complicity of adverse conditions and the onset of an Avars, was splendid. Mr. W. C. White, our latest experimentalist, had given us a blueberry such as experiences; in the presence of that fruit we couldn't take it seriously, and we didn't. The winter varieties, in colors, was

a sight of imposing beauty. Such Kings, Gravensteins, Baxters and Wolf Rivers! And such apples of all the other varieties, green and russet and red!

In his strawberry paper, Mr. A. E. Dewar gave us the best bit of practical notion on local work we have so far had. He is a big grower himself, and knows how. The Chair wanted an expression from him as to the Island's capabilities in growing the favorite berry. "We can grow

the best strawberry in North America," was the modest way he put it. And he's right.

Mr. C. R. Dickey has a little gold mine in cranberries. His address made us sit up straight and listen. Thirty-seven barrels this year off half an acre, was his assurance. And \$36 per barrel they fetched last season in Montreal.

There was a great deal of routine matter transacted at the Annual. The reports, resolutions, recommends, are usually of a sort. We

will not burden the page with them. The officiality is continued. We protested, but in vain, against our continuance in the chair; then we accepted the soft seat with resignation, and promised faithful service for the new year, but not a day longer. Thus, the Island convention was pulled off in two days. And many say—what won't people say, anyway?—that it was one of the best. A. E. BURKE.

## Future of the Apple in Ontario.

[Address by A. McNeill, Chief of the Fruit Division, Ottawa, before the Fruit-growers' Association of Ontario, November, 1906.]

The future of the apple trade in Ontario rests upon several natural conditions—soil, climate, markets, transportation, and the trend of trade—as well as upon the character of the men who are growing the fruit and the character of the men who are handling it. I will also assume that men will do what is for their best interests, although I am perfectly well aware that not infrequently this rule of action is violated. On the whole, it would be more correct, perhaps, to say that I am endeavoring to show the lines along which the apple industry should develop, rather than the actual development that will take place.

Of the various elements that enter into this problem, I propose to select a few, the importance of which has been overlooked, or which are not likely to be handled by others. Some of the most important I will pass over with just a simple reference; transportation, for instance, is a most important element in connection with the future development of the apple industry. Soil is also another important element. Fortunately here I need say little, inasmuch as there are few parts of Ontario where the soil is unsuitable for the culture of apples. Some parts may be slightly better than others; but, on the other hand, the conditions are so uniform and the question so local that it may fairly well be omitted in an investigation of this kind.

### GEOGRAPHY, TOPOGRAPHY AND VARIETIES

I shall confine myself more particularly to questions of climate and the selection of suitable varieties for local conditions, and the trend of trade, with special reference to the markets. For the purpose of developing these points, I have drawn a map, coloring the various portions of it to suit the conditions which I believe prevail with reference to temperature and climate generally. I will use this map for the purpose of drawing your attention to certain physical features that have a most important bearing on the development of apples, a bearing that has been entirely overlooked in the planting of the orchards of Ontario. Nevertheless, by a process of the survival of the fittest, the trend of apple-orcharding is shaping itself very nearly as the physical features of the Province would dictate, and, in any case, the development of markets and the distribution of population has proceeded so rapidly within the last quarter of a century that those who planted the orchards twenty-five years ago can scarcely be blamed if they did not foresee some of the results that were inevitable, now that their orchards should be in full bearing.

### APPLES AND ALTITUDES.

I would first draw attention to the heights of land. This element in the determination of climate is not a striking one in Ontario. Nevertheless, the net results of height above the sea-level are just as definite and just as effective as in mountainous districts such as British Columbia. The traveller in British Columbia can stand at the foot of a slope and pick tender flowers, but raising his eyes but a few hundred feet, he can see the whole mountain top covered with snow, and, perhaps, even with glaciers that never disappear. The result is brought about solely by the differences in the height between the base of the mountain and its top.

The slopes in Ontario are so gradual that we are not aware of the heights we reach. I would, therefore, play the schoolmaster to the extent of noting that Lake Huron is 575 feet above the sea-level, Lake Erie 565, and Lake Ontario 262 feet. Compared with this, we have: Chatham 589 feet, London 805, Brantford 705, Stratford 1,189, Durham 1,687, Walkerton 931, Mount Forest 1,348, Orangeville 1,557, Lindsay 854, Peterboro 649, Ottawa 215, Montreal 47.

### FOUR NATURAL DIVISIONS OF ONTARIO'S FRUIT AREA.

By a glance at the outline map accompanying the reader will observe that four natural divisions have been indicated.

### EXPLANATORY NOTES.

District No. 1 grows all the tender fruits, such as peaches, apricots, dwarf pears of all varieties, and all varieties of apples, plums, pears, cherries, etc. This region is specially adapted to early fruits and vegetables, being from ten

days to two weeks ahead of the districts surrounding the large markets.

District No. 2 grows excellent winter apples of all varieties to perfection. It is characterized by a large number of comparatively small orchards containing numerous varieties of fruit. Many portions are excellently adapted for plum and pear culture.

District No. 3 is specially adapted for winter apples. There are many large orchards especially on the shore of Lake Ontario. The farmers here are making a specialty of orcharding. District 3 (a), on the Nottawasaga Bay should be classed with District 3, having large orchards of comparatively few varieties of winter fruit.

In District 4 the ordinary winter varieties are not hardy. This district, however, grows Fameuse, McIntosh Red, Wealthy and Wolfe River to perfection. The first two are dessert apples that, if properly packed, should command the very highest prices as dessert apples. District 4 (a), the midland counties of Western Ontario, on account of their altitude, must be classed with District 4. In this district, the ordinary winter varieties grown in the adjacent counties are not hardy.

The height of land embracing the Counties of Dufferin, Wellington, Perth and Waterloo renders the winter climate frequently so severe as to make it impossible to grow the tenderer varieties of apple trees. We are, therefore, obliged to put these counties in the same apple district as the northern portion of the Province, which I have designated as District No. 4, and which includes the Valley of the Ottawa and St. Lawrence Valley, roughly, as far as Kingston. For the purpose of the apple industry, I need only consider the more favored portions of this District No. 4, where they grow the Fameuse and McIntosh Red, the Wolfe River, Duchess and Wealthy. Such varieties as the Spy, Baldwin, Cranberry Pippin, King, etc., are altogether too tender for this area, so that this district is not considered in the production of what we call winter varieties.

The counties bordering on the north shore of Lake Ontario, together with a small portion of the County of Grey bordering on Georgian Bay, and one or two townships in the County of Dufferin, designated District No. 3, have that happy-medium climate that renders them peculiarly well fitted for the winter varieties. The temperature is not so severe as to cause serious loss from winter-killing, and the summer temperature not so high as to prematurely ripen these varieties.

The counties bordering on Lake Huron, and the second tier of counties north of Lake Erie, named District No. 2, are also admirably suited in cli-

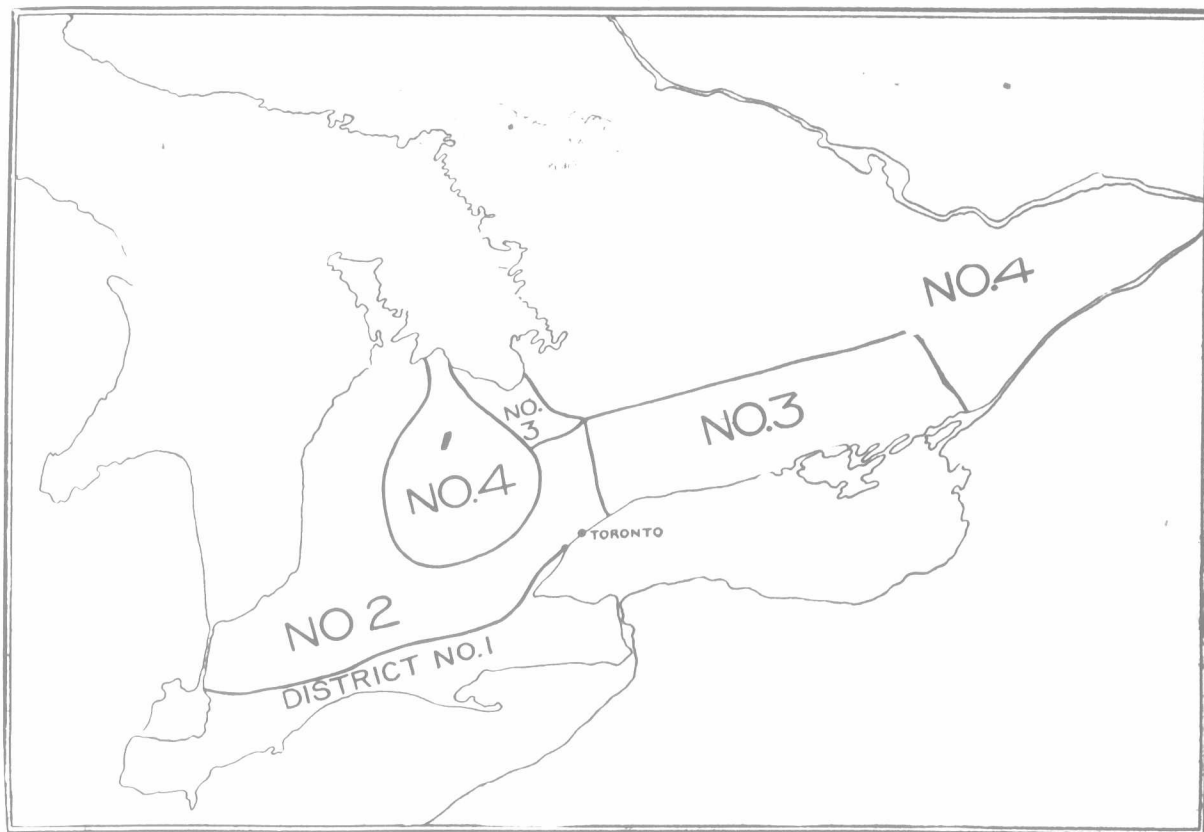
mate and soil for the production of winter varieties, but the orchards of these districts were planted under different conditions that have induced me to place them in a separate class.

### PECULIAR CONDITIONS IN THE LAKE ERIE COUNTIES.

We now come to the counties bordering directly on Lake Erie, which I have grouped under District No. 1. This may be called the tender-fruit belt of Ontario, where peaches, cherries, tomatoes and all tender fruits are grown with the greatest success. The apple also grows here to perfection. Nevertheless, it is a matter of notoriety that, though the earliest orchards of Canada were planted in this district, and though it made its reputation as an apple-growing district long years before the other portions of the Province were settled, of late years the industry has fallen into disrepute. Splendid old orchards, in perfect health and vigor, and bearing a full crop, have been chopped down to make way for ordinary grain crops, and even in years of comparative scarcity, as last year and this, thousands of barrels of apples have been allowed to go to waste in the orchards in this district. Some of the finest of the apples, if not the very finest exhibited at the recent Horticultural Exhibition in Toronto, came from this district. Such a condition of affairs calls for some explanation. If the fruit can be grown to perfection, and if orcharding is profitable, why is it that we find this waste of fruit and want of confidence in the apple industry?

### THE SOUTHERN FRUIT LACKS KEEPING QUALITY.

The explanation is partly a question of climatology and partly an economic question. As a matter of climate, this District No. 1 has a mean annual temperature many degrees higher than districts 3 and 4. The Fameuse apple will be in full bloom in Chatham early in May; the same variety will not be in bloom in Lindsay for two weeks later. The fruit-grower in Chatham does not fear serious frost until the first of November, probably until the 10th or 15th of November. The fruit-grower north of Lake Ontario is very anxious indeed if he has any apples exposed the last week of October. It will thus be seen that apples north of Lake Ontario begin to grow nearly two weeks later than in the southern parts of Ontario. It will also be noted that in District No. 3 they do not have nearly so high a temperature during the summer months, and consequently are nearly a month later in reaching the same degree of maturity as the varieties in District No. 1. In consequence of this, all the com-



Province of Ontario's Apple Districts.

mon winter varieties, such as the Baldwin, Spy, Russet and King, are ripe in District No. 1 early in October, and in the natural order of things are subjected to the warm, genial weather that prevails in this district during the latter part of October. At the end of three weeks of this warm weather the apples are in a condition of maturity, when they must go at once into consumption; that is to say, apple operators will not store these varieties, or, if owing to very favorable conditions of temperature, they do attempt to store them, the consequence is a very serious loss when they come to be repacked during the winter months. The growers, then, of winter stock in this district are forced to sell so as to go on the market at least before Christmas, and they have not the alternative of accepting this market or the later winter market.

#### CHEAP APPLES.

It might be noted just here that in the apple industry it is always likely that the cheapest apples will be those that must go into consumption during the months of October, November and December. During these months there will always be the fag ends of the high-priced early apples, as well as the odds and ends of the late winter varieties that for one reason or another have to be forced upon the market. These two sources of supply, together with the large volume of apples that ripen normally at this period, will always make a surplus at least of No. 2 grade at this time. Herein lies the reason for the low prices and for the want of market for the apples grown in district No. 1.

#### A NATURAL WINTER-APPLE REGION.

Somewhat different conditions prevail in the district which I have designated No. 2, including the second tier of counties on Lake Erie and the counties bordering on Lake Huron. This district, of course, fades imperceptibly into district No. 1 upon the south, but upon the whole is admirably fitted for growing the winter varieties. In common with district No. 3, it has that happy medium of climate not so severe as to induce winter-killing, and not so high in temperature as to prematurely ripen the apples. The standard winter varieties are matured normally so as to meet the temperature approaching the freezing point that prevails in these districts after the first of November. These apples go, as it were, into a natural cold storage, and, if harvested with care and placed at once where they will be protected from the occasional warm days, will be in the best condition to be repacked and shipped for the winter market.

#### FUTURE FOR EARLY APPLES.

What, then, should be the aim of the orchardist in the counties north of Lake Erie, District No. 1? One thing is certain, they can never compete under natural conditions with other portions of Ontario in the production of winter apples. It is very true that in this respect they have conditions not dissimilar to the orchardists in New York State, and they may make orcharding as successful in New York State by adopting the same devices as have been adopted there, namely, an extensive system of cold storage. If, at some point, or several points, in this district, cold-storage facilities are provided whereby the apples may be packed when they are matured (the last of September or the first of October) and placed in cold-storage chambers, where they will be quickly reduced to a temperature near the freezing point, they may, with confidence, then be repacked for the winter trade. Dismissing, however, the question of cold storage, the orchardists here should recognize the defects of their apples and market them early in the season. Indeed, though they have not clearly recognized the defects of their apples as keepers, all the apples that have been used have been sold for immediate consumption.

#### FIELD OF THE IRRESPONSIBLE BUYER.

As has already been pointed out, the market is not always a reliable or steady one, and consequently the more reputable dealers have avoided this district in their operations. It has been the prey, too frequently, of the irresponsible buyer, who has come in with his glib tongue and a light purse, and promised prices that induced the apple-grower to part with his fruit. The apples were packed and shipped, and if the price realized was a good one, or if the apple operator was so fixed that he could not get out of the district readily, he paid the farmer a part, or the whole, of what was promised. If, on the other hand, the markets were poor, if he made a clean breast of the matter and explained that the markets had gone wrong and he could not pay the promised price, the farmer very quickly realized that he had no recourse.

This, however, is not a necessary condition of affairs. It simply indicates bad business methods, and the remedy here is quite aside from any question of climate, soil, varieties or markets. The question is simply one of organization among the apple-growers themselves. This has been demonstrated by the success of one or two co-operative organizations which have been working

in this district. I need only to refer you to the success with which the Chatham Fruit-growers' Association is working. Another co-operative organization is working most successfully in Simcoe. Both of these organizations have this year sold all the apples their patrons had at prices much higher than the average prices paid for winter apples in the counties north of Lake Ontario. What has been done at Chatham and Simcoe can be done in Essex and Elgin and other counties constituting this district.

#### RAPIDLY-GROWING MARKET IN THE WEST.

Just here may be a convenient place to discuss the question of markets for early apples. The two most important markets for early apples are the Western Provinces and Great Britain. The markets of the Western Provinces are opening so rapidly that few who have not paid special attention to this matter will realize and appreciate the extraordinary growth of late years. The influx is not likely to lessen for many years, but the market for apples cannot be measured by this standard, large as it will be. The great cost of distributing the apples limits the consumption very largely to the cities and towns capable of taking at least carload lots. During the last few years there have been established along the railway lines of the Western Provinces hundreds of stations, none of which, until recently, were able to take the fruit in carload lots. Last year and this some dozens of these places have come into the market, accepting carload lots. A few years ago Winnipeg was the only distributing point. Now large distributing warehouses have been established at Regina, Prince Albert, Moose Jaw, Calgary, Lethbridge and Edmonton. In consequence of this, an extraordinary demand for fruit has sprung up, quite out of proportion to the number of people entering the country last year and this. The comparative cheapness with which the fruit can now be distributed has increased the consumption among the people. The extraordinary prosperity of the Northwest has made it possible for almost everyone to enjoy fruit, which necessarily is high-priced even yet, compared with the price which is received by the grower. We can look forward, then, confidently, to a market there that will readily absorb a very large proportion of all the fruit that Ontario can grow. It is very true that the Ontario grower, in the near future, will have to meet the competition from the Province of British Columbia. This, however, he need not fear. The growers of each Province, when all the elements of success are taken into consideration, are upon a comparatively equal footing, and even if this were not the case, the market will likely increase much faster than the production of fruit in both Provinces.

#### WINNING OUR WAY IN BRITISH MARKET.

In addition to the Northwest, there is another growing market available for the Ontario grower, namely the market of Great Britain. It has formerly been an axiom of apple-growers that Canadian fruit would be acceptable in Great Britain only when there was a failure of the English and European crop. This conception of the British market is not a true one. For a number of years a large quantity of early fruit has gone from Canada to Great Britain, and prices have always been quite satisfactory, and there appears to be no good reason why this market should not continue and, in all probability, increase, even in the face of the competition with the apples of the home market. It is quite true that the Canadian apples will not compete with the best early fruit of Great Britain, but there are certain features of the business that are distinctly in favor of the Canadian growers. First, we have an admirable system of ocean transportation and a fair degree of efficiency in the railway transportation. If the early fruit is cooled properly before being packed, and then shipped in a refrigerator car, there is almost an absolute certainty of its reaching Great Britain in the best of order. The question, therefore, of losses in transshipment is reduced to a minimum. During the last two or three seasons the cargo inspectors at Montreal and at ports in Great Britain have very carefully reported upon the condition of the apples at the time of shipment and upon arrival in Great Britain, and in no case has there been a serious loss where it could be shown that the fruit was properly started from the orchards.

#### BENEFIT OF BIG SHIPMENTS.

In the British markets, the Ontario grower has upon his side the large brokers and fruit merchants. The Canadian apples reach the brokers and fruit merchants in uniform packages, uniformly graded, and in large quantities, compared with English fruit of one or two varieties. This element of uniformity in grading packages and variety will itself almost offset all the disadvantages that we have in the matter of transportation. It is easier for the fruit merchants to buy and distribute Canadian apples than it is to buy and distribute the home-grown fruit. The English orchards have the disadvantage of being planted with a great many different varieties, and no two portions of England put up their fruit in the same kind of packages. It is very difficult

for the dealer in Great Britain to get the same varieties or the same packages of home-grown fruit twice. This makes all transactions in English fruit a retail affair, and naturally the large sales all go to the Canadian or American product. As compared with the American apples, I quote from the latest number of an English market paper, The English Grocer, to show that Canadian apples have a preference of two shillings per barrel, which effectually protects them from any serious competition from States to the south of us.

Taking these two markets, then—the markets of the Western Provinces and the British markets—I see no reason why the present stock of apples should not be sold at good prices if proper means are taken to place them on the markets.

#### EARLY VARIETIES FOR ERIE COUNTIES.

One word more with reference to this southern division, No. 1. If, then, the market for early fruit is to be a growing one, I should strongly recommend that the growers confine themselves very largely to the early varieties. The Red Astrachan can be shipped from the County of Essex the third week in July, the Duchess the last of July and the first of August, the Wealthy, of course, somewhat later. Such varieties as these, therefore, should be selected, and this district should apply itself to supplying not only the Western Provinces, but our own city population in Toronto, Ottawa, Montreal and Quebec, with all the apples they need after the first of August, when we would entirely exclude the American product that now finds its way to our markets. It is unfortunate that the orchards of this district are devoted so largely to Baldwins, Spies and Russets and other winter varieties, inasmuch as these apples come in in the glut months of October and November. If the orchards were composed of the early varieties that I have mentioned the prices would be much higher than could be realized for the very best winter fruit in any part of Canada.

#### TOO MANY VARIETIES.

The conditions in District No. 2 are somewhat peculiar. Of course, there is no sharp line of demarcation between these districts, and the southern portions of Brant, Oxford and Middlesex may in some years be properly classed as part of District No. 1, but the greater portion of District 2, including the Counties of Lambton, Middlesex, Huron and Bruce, and part of Grey, has all the advantages for growing the very best winter varieties of apples. The planting, however, was done in the earlier days. In the selection of varieties there was the greatest latitude. No orchard was considered complete without a dozen or more varieties, which was all well enough for home market or for home use, but rendered the conditions very unfavorable for the commercial market. Every farm, too, had an orchard, very few of a large size, and very few making a specialty of apples; in fact, very few counted it more than a pure side line in their general farming operations. The result is that, though the small orchard predominates, yet the aggregate is a very large number of trees, probably not less than two and a quarter million.

The difficulty comes in in making sales. The large apple operator cannot, without extraordinary expense, harvest these apples profitably. He cannot send his gangs of men around more than once or twice at most, and yet these orchards would furnish almost continuous picking from the first of September until the close of the season. As a consequence, many of the apples are picked before they are ripe, or sometimes after they have reached maturity, and many of them are not picked at all, because they are not in the proper state of maturity at the time the gang visits the orchard. Though the aggregate, of course, is so large, the number of desirable varieties is probably not more than half the aggregate number.

#### NEED OF CO-OPERATION.

The recommendation which I would make for this district is co-operation in marketing and selling. There is no one who can pick these apples so cheaply or so well as the man who grows them, but he cannot pack them nor market them. He has not enough of any one kind to pay him to do this properly. It can be done, however, by uniting into co-operative associations which would furnish the packers and the facilities for selling. It is notable that two of the most successful societies in co-operative associations are in this district, namely Walkerton and Forest, and I cannot help thinking that a very slight encouragement would organize several more associations.

#### THE CENTRAL COUNTIES.

The central counties of Western Ontario, marked No. 4, call for some special comment. The altitude here, and consequently the climate, are adverse to the best conditions for apple-growing. Flesherton is fifteen hundred feet above the sea-level, nearly a thousand feet higher than Lake Huron, and twelve hundred feet higher than Lake Ontario. Nevertheless, there are many sheltered spots where the apples, even of tender varieties,

succeed fairly well, so that it is not surprising that in this district there are probably more than half a million trees. One could not recommend, though, the planting of early varieties for commercial purposes. These varieties would be three weeks or a month later than those grown in the southern tier of counties, and would come in during the glut months, having none of the advantages of the apples of better varieties and better quality grown in the southern tier of counties. I see no hope, therefore, of a profitable apple business being conducted here, except along the general lines that would be recommended for the Ottawa and St. Lawrence Valley, District 4.

#### A FAVORED ORCHARD DISTRICT.

I have referred to the height of land running through the central portion of Ontario, beginning at Queenston and constituting the bluff from Queenston to Hamilton. This height of land, continuing, as it does, north to the Georgian Bay, slopes much more rapidly towards the east than it does towards the west, as it approaches the Georgian Bay, and it begins near Collingwood to once more take the high-cliff form similar to that between Queenston and Hamilton. It is upon the eastern slope of this height of land, near the Georgian Bay, that we find some of the finest orchards in the world. It is a happy blending of soil, situation and climate that makes it an ideal country in which to grow winter apples. Here new orchards are being planted very rapidly, and, as a general thing, the bearing orchards are composed of comparatively few varieties. The fruit-growers of the district had learned the lesson taught by the experience of the older orchardists in southern Ontario, and gave their orders so as to have, say, three, four or a half dozen varieties in their whole plantations. They also had sufficient confidence to plant in large blocks of ten, twenty or thirty acres, and are now reaping the reward of their forethought.

#### DIVIDENDS ON \$800 AN ACRE.

It is not an uncommon thing at all in this district to find large orchards that are paying dividends on a capitalization of five to eight hundred dollars an acre. When you consider that the land without trees is valued at from fifty to seventy-five dollars per acre, and that the cost of putting in an orchard and caring for it until it comes into bearing is probably not more than a hundred dollars per acre, it can readily be seen that the whole operation is a paying one for the farmer. The drawback is that he has to wait ten years for his dividends, and in this glorious age, when fortunes are being exchanged every few hours, ten years looks to be such a hopelessly long period that even the patient farmer sometimes dismisses the scheme in disgust.

#### PROFITABLE ORCHARDING ALONG LAKE ONTARIO.

The counties north of Lake Ontario, styled District No. 3, owe their high reputation as an apple region partly to the climate, partly to the geological formation, and partly to the shrewdness of the orchardists in learning lessons from the experience of the older orchardists in the west. Geologically, the best apple orchards in this district are in what is known as the Iroquois Basin, extending to the high land at varying distances from the present shore of Lake Ontario. This land is extremely fertile, and has the climatic advantages of the lower situation protected by the high ground to the north. Many very excellent orchards, however, are grown on the high land just beyond this basin till it merges into district 4, where only the hardiest trees will grow.

#### LARGE ORCHARDS, FEW VARIETIES.

Large orchards are the rule in District 3. The varieties have been well selected to meet the requirements of a winter trade. Orcharding is a specialty with many growers, and the enterprise is considered extremely profitable. This district is well adapted to the usual methods of the apple operators. Owing to the larger orchards and the fewer varieties, the cost of picking and packing is much smaller than in District No. 2. The recommendation here is, of course, to continue along similar lines, planting the hardy winter varieties.

Cold storage is quite unnecessary for winter fruit in districts No. 2 and 3. They are, consequently, twenty-five cents a barrel, at least, ahead of winter varieties grown anywhere else to the south. The business, therefore, of growing apples might possibly, though it is exceedingly improbable, become unprofitable in New York State, while the growers in Districts 2 and 3 could continue with a margin of twenty-five cents per barrel, at least.

#### DESSERT APPLES TO PERFECTION.

District No. 4 contains probably much less than a million apple trees, many of these of unsuitable varieties. The area covered is extremely large, so that, with the exception of a few small sections in this district, it cannot be regarded seriously in the light of a business.

Nevertheless, there is no part of Canada where a larger return might be made than in this district. They grow to perfection here the Fameuse, the McIntosh Red and the Wealthy. In addition to these, the Alexander and the Wolfe River can be grown quite profitably; they are much better apples and better keepers than when grown further south. Nevertheless, they are not of extraordinary quality. The Fameuse and the McIntosh Red stand at the head as dessert apples. If the excellence of these apples as a dessert fruit were recognized, and if the growers would but pack in boxes after the style of the Pacific Slope fruit, the business would be extremely profitable. There is a splendid opening for any packers who will take up the packing of these apples in this district and cater to the very high class of customers—those who are willing and able to pay a large price for a most excellent article.

#### SUMMARY.

To sum up the situation generally, I should recommend that District 1, or the counties along Lake Erie, should devote themselves very largely to early fruit.

The pressing need in District No. 2, or the counties along Lake Huron, is better organization for harvesting and selling. Co-operative associations are an absolute necessity in this district of small orchards with many varieties.

What has been said with reference to the Ottawa and St. Lawrence Valleys is equally applicable to many parts of the central high counties of South Grey, Wellington, Waterloo and Perth.

The Georgian Bay and Lake Ontario counties, District No. 3, will undoubtedly devote themselves to the winter varieties, and we can look for a large increase in the acreage of orchards on these lines.

I have less hope that many new orchards will be planted in district No. 4. Nevertheless, if co-operative associations were formed, that would induce a somewhat better culture, and introduce box-packing, fruit-growing would become one of the leading industries.

#### The Forest City.

City Park Commissioner Pearce, of London, Ont., estimates that there are in the neighborhood of 20,000 trees in the streets of the Canadian city on the Thames. He has taken out 3,000 in the last three years, and the diminution is scarcely perceptible. A mistake made was the planting of so many trees of the one variety, and too closely together. He favors planting different streets with trees of various kinds. He likes the Norway maple very much, and prefers nursery trees to those taken from the forest, a large proportion of which die.

#### The Sooty Fungus.

Fruit-growers have this year found the sooty fungus much more prevalent than usual. Indeed, in Western Ontario it has been almost as serious a pest as the apple-scab. This fungus, while not causing the same material waste as the apple-scab, so discolors the outside of the apple that it renders an apple, otherwise fairly good, almost unsalable. It appears to develop very rapidly after the barrels are packed; much more so than the apple-scab. A. McNEILL.

## APIARY.

#### Feeding Bees in Winter.

While all bees should long before this time of year be snugly tucked away in their winter quarters, with plenty of honey within their reach to carry them through until spring, there are almost sure to be a few hives here and there which, from one cause or another, have entered the winter "light in stores," and, unless something be done to help them, will starve to death before the winter is over. Perhaps their owner neglected them in the early fall, thinking he would have more time to attend to them later on, or the bees may have become the property late in the season of some person who knew nothing of their requirements, and has only very lately become aware of their condition. In either case the bees must have feed given them, if they are to be brought through the winter. If the owner of the hungry bees has any combs full of honey in his possession and the combs on which the bees are wintering are of the movable variety, his best plan is to remove a comb from near the outer side of the hive, if this can be done without breaking the cluster of bees, and to put a full comb in place of the empty one, getting it as near the bees as possible. If the comb cannot be got into the hive, the next best plan is to lay it flat on top of the frames, placing a couple of narrow strips of wood under it to hold it up from the frames half an inch or so, so that the bees may get at all the under side of it. When the bees have emptied the under side, turn it over; and when both sides are empty remove it and place on another full

one. If no combs of honey are to be had, it will be necessary to make what is known as hard candy for the bees. If well made, this candy will winter the bees just as successfully as honey will. To make the candy, place granulated sugar in a vessel and add a little water—just enough to slightly wet the sugar. Melt it on the stove and boil it until it will become hard and white when taken from the stove and allowed to cool. Stir it more or less while boiling. To tell when it is "done," test it occasionally by taking a little from the stove and stirring it on a dish until cold. When it cools hard, smooth, white and dry, it is all right. When it reaches this stage, remove it from the stove and stir while cooling. If not stirred it will harden like taffy instead of like candy, and will daub the bees when they go to eat it. When it has cooled to the point where it will just nicely pour, it should be poured into dishes or pans that will make cakes of convenient size for laying on top of the frames of the hive. These cakes are laid on the frames in the same manner as the combs spoken of above. About ten or fifteen pounds of this candy should suffice for an ordinary colony of bees, but they should be examined again early in the spring and given more if they are anyway nearly out. The principal thing to be careful of in making hard candy is to not let it get burnt. The least sign of burning renders it unfit for bee food, and it will kill them if given to them. Better make a small lot first to learn how. After bees have been given honey or candy, they should be covered up well with chaff or leaves if wintered outside, and should then be left severely alone until there is reason to believe their supply of food may be nearly exhausted.

Feeding bees in cold weather is only making the best of a bad job, but if you find yourself with the bad job on your hands, it is better to make the best of it than not to make anything of it, and bees wintered on candy are just as good, other things being equal, as any other bees; and are worth a good deal more than bees that starve to death in February. E. G. H.

## THE FARM BULLETIN.

#### "The Eastern Townships."

What is known as the Eastern Townships is that district of country in the Province of Quebec situated south of the St. Lawrence river, and includes practically the whole southern and eastern counties of the Province. These townships have been for years celebrated as one of the best dairy sections of the Dominion, as also they control the bulk of the maple sugar manufactured in Canada to-day.

The country is naturally adapted for the pasturing of sheep and other stock, as its numberless hills always contain plenty of grass and water all through the summer season; and when other parts of Canada suffer for want of water these townships enjoy an abundance of it, from the numerous springs and brooks to be found everywhere.

Within the last number of years considerable has been done along the line of breeding pure-bred cattle, preferably Ayrshires, Holsteins and Jerseys, although some fine herds of Shorthorns and Herefords are to be found. Cheese factories are becoming less in evidence every year, and are being replaced by creameries of the most modern type, and the farmers are realizing the benefits to be derived from advanced dairying. They were among the first to take up the idea of the Government cow-testing societies which have been advocated, and a number of successful societies have been conducted during the year.

Farms in these sections are considered inadequate unless they contain a good acreage of sugar-maple trees, as this is one of the leading and most profitable industries at the present time, and will continue to be, as almost every farmer has his sugar house, with a complete equipment for manufacturing pure maple sugar and syrup, from at least six hundred to twelve hundred trees, and good prices are realized at both the local and foreign markets for their produce.

Sherbrooke, a city with a population of some twelve or fourteen thousand, is considered the leading market in this district, although there are a number of smaller ones also. This city is situated on the main line of the Grand Trunk Railway, between Montreal and Portland, at the junction of the Magog and St. Francis rivers, and has abundance of water power, as its numerous factories indicate. It can be reached by the Quebec Central Railway, the Boston and Maine, the Canadian Pacific and the Grand Trunk Railways, and has one of the best markets in Quebec. Here also is held every year in September one of the leading exhibitions in the Dominion for all kinds of farm produce and live stock, which is visited annually by thousands of people from all parts of Canada and the United States. J. H. S. Quebec.

#### How to Get or Sell Supplies.

Judging by correspondence we are receiving, it would be a good opportunity for farmers who want to sell or buy hay or corn in quantities, to make frequent use of our "Want and For Sale" advt. column.



Sandy Fraser and the Schoolma'am.

Editor "The Farmer's Advocate": Will you, sir, gie me space in yer paper for the purpose o' roundin' up some o' the farmers o' this Province and giein' them their pedigree. I hae bin readin' some things in the papers the past few weeks that mak' me fair ashamed o' the "intelligent an' broad-minded agriculturists," as we hae bin sae fond o' callin' ane anither the past few years. An' what I hae been readin' is juist this: that, in the first place, oor Ontario Government has come tae the conclusion that oor public school teachers hae bin on starvation wages lang enouch, and sae they are takin' the matter oot o' the school trustees hands an' fixin' it sae that the teacher may noo hae a wee bit o' her siller left after she pays her board at the end o' the year.

An' noo, what next do I read? Juist this: that here an' there an' somewhere else, some o' oor prosperous farmers are gaein' tae mak' a big kick against the hale scheme, which they consider na mair or less than wholesale robbery.

Yes, ma friend, ye's na doot hae tae pit yer han' a bit further doon in yer pocket an' tak' oot two, or three, or mayhapen four dollars mair than ye dae the aoo, an' I ken weel hoo onything like that hurts ye, an' ye'll be sayin', too, that it's for naething ava, for ye think that the school teacher is weel paid the noo, with her short hours an' her lang holidays. Weel, did it ever come intae yer min' hoo mony years that same teacher spent in Public School an' High School an' Normal School, juist for the privilege o' trainin' an' educating the thirty or forty scamps o' bairns that ye hae in yer section, which their ain mithers canna' manage, an' sae they shift the responsibility on tae the teacher, wi' the result that she has on her hands a hantel o' wee weans o' four an' five years o' age that are always greetin' tae gae hame tae their mithers lang before four o'clock comes; an, forbye a' that, she has tae keep in hand the big lads an' lassies, that will be aye speirin'. "Please, Miss, may I gae oot," an' "Please, Miss, may I dae this," an' "Please, Miss, may I dae that," till the puir teacher is like to gae daft.

"Yes, ye may think it's short 'ours frae nine till four, but I'm thinkin' ye'd find them lang enouch, gin ye took the job for a wee. I ken o' a teacher in oor ain neeborhood wha taught schule for three years, an' then took the next three years to recover frae an attack o' nervous prostration or some like disease that they hae nooadays when they're overworked, an' dinna get salary enouch to pay for decent board.

An' noo, on tap o' a' this, we hear oor taxpayin' friend shoutin' tae keep down the wages. Ye auld skinfint, do ye no ken that it costs mair tae live the noo, for the teachers, an' do ye no ken that ye're weel able to pay the difference too? The trouble is ye're mair able than willing.

An' noo, above an' beyant a' this, there's anither thing I want tae impress on yer mind, an' it's this: In school teachers, as in maist everything else, ye'll get juist about what ye pay for. If ye pay poor wages ye'll get a poor teacher, and if there's onything that's dear at the price it's yon. Neglect the proper education o' yer bairns an' ye'll pay interest on the loss as lang as ye live, an' they'll pay it after ye're dead. Pay living wages, an' get live teachers, an' dinna be economizing where yer children's brains are concerned; an' so when yer time comes tae dee, an' yer neebors are pittin' ye in yer last resting-place, yer boys an' girls may be able to say: "Weel, if the auld man didna' ken ower muckle himsel', he was aye gude to gie his bairns a chance," an' that's mair than they'll say for ye if ye leave them naething but a bank account tae fight about.

An' noo, Mr. Editor, ye will kindly assure yer readers that the writer o' these lines is no a school teacher, nor is he in the habit o' sittin' up at nights wi' onyone wha is. It's juist that he wants tae see fair-play, an' I'm thinkin' so do we all, but we hae na' gie'n this matter the conseederation it deserves, that's the trouble. Think it ower, an' I'm no afraid but ye'll dae what's richt. Yours as ever, SANDY FRASER.

[Note.—"The Farmer's Advocate" has no hesitation in assuring its readers that "Sandy" is no pedagogue, and whatever he may have done in days gone by, he is now far past the stage of sitting up nights with some of the fair ones who are.—Editor.]

A Truce, Not a Peace.

Prior to the adjournment of the House at Ottawa for the Christmas vacation, Hon. Messrs. Fielding, Aylesworth, Paterson and Fisher, of the Cabinet, received a delegation, consisting of Messrs. E. C. Drury, B.S.A.; Jas. McEwing and W. L. Smith, accompanied by a large contingent of M.P.'s. While freely acknowledging what the Government had done in the way of tariff reduction, thus lessening the burdens on the farming community, the delegation took uncompromising ground against any demands from the manufacturers for tariff increases, and urged the abolition of the iron and steel bounties. The British preference was heartily endorsed. The ministers promised to give every consideration to the views thus urged upon them.

I received my premium knife all right, and am delighted with it. Please accept my thanks. Wishing you a prosperous New Year. A. E. HANLEY. Grey Co.

A Review of the P. E. I. Farmer's Year.

Now that we have entered the last month of the old year, it is interesting to look back over the year that is about ended and note the very unusual season we have passed through. The first three months were, on the whole, exceptionally fine winter weather, one of the finest winters that we ever had, with just enough snow to make good sleighing all winter. This was followed by a cold and extremely wet, backward spring, and farmers having low, wet land under cultivation suffered severely in consequence; the crops on such land being sown so late that they did not mature, while a great deal of crop was drowned out completely, and some areas were not sown at all; and throughout the Island everywhere, from some cause or other, the potato crop missed very badly. Following this deluge of rain, which we had all spring and up to July 13th, came a season of drouth, and we had then very little rain until well on in October. Then we had the extreme the other way again, and it was indeed so wet that it interfered very much with the fall work, such as plowing, or other outside duties. The first two weeks of November are days long to be remembered by the inhabitants of this Island, and days never to be forgotten by the poor sailors caught out at sea in that terrible gale of wind and rain, which blew a hurricane for ten days without a let-up. To be out in an open boat exposed to the angry waves, without food or shelter, for eight days and eight nights, is an experience which none of us would covet.

Never before were our Island shores the scene of so many shipwrecks, which called forth brave men from amongst us, who did not hesitate to take their lives in their hands and breast the gale and tempest, in the hope of rescuing some of the poor seamen still clinging to the wrecks. The names of such self-sacrificing men will be handed down to our coming generations, as among the greatest heroes that our Island has produced.

December started in very cold and stormy; the night of the 3rd and all day the 4th a raging snowstorm was on; roads were blocked, and all traffic tied up for a time. It was a very bad storm for so early in the season, and has brought winter to stay. Coming so suddenly, and somewhat earlier than usual, it has caught an occasional farmer with a few things not quite ready for winter. The plowing was about all done, yet some would like to have had a day or two more of open weather. If we should have another cold, wet, backward spring, it is going to make a very long winter, especially for those who have not a large supply of fodder for their stock. Feed will certainly be scarce with some farmers, but I think, on the whole, there is enough and to spare. Stock through the country look better than usual this fall. Farmers are not keeping quite so many cattlekind, but they are making more dollars out of what they do keep. This is certainly the result of higher education along agricultural lines. The past season has been a very successful one for the dairymen. Butter at 24c. and cheese at 13c. per pound has caused a smile on the farmer's face which will last most all winter; in fact, almost everything the farm produces will bring satisfactory prices this fall. Farms are in great demand this year, and are not long finding a purchaser, despite the craze for the great West, advertised so extensively in the press, which is very careful not to mention all the disadvantages bound to come to those who make up their minds to settle in that country. Take the water for instance. Just think of taking a drink of water from a stagnant pool on a hot harvest day, compared to a drink from one of our refreshing springs of clear, cold water. Then there are the sand storms, the blizzards, the fuel famine, to say nothing of the big mosquitoes that are more severe than our marsh flies here. The man who has not brains enough to make a good living on a good P. E. Island farm will not likely do much better on a Western prairie. In comparing the two countries as a place to live in, a New Brunswick paper says: "One of the most surprising things to note in the Island press is the large number of Island farms for sale." And it further says: "It would be hard to find a better place to live than on P. E. Island, with an abundance of pure spring water, and a fairly good market for everything the farm produces." One of those who would get rich quick, says: "In the Eastern Provinces we still have wood to burn, as well as coal, and are about two thousand miles nearer the great markets of the world than are the people of Saskatchewan. Our winters here are severe enough, but the thermometer goes twenty to forty below on the bleak prairie, and a Northwest blizzard is something appalling. These are conditions which our people should consider carefully before selling out their good old Island farms for that of the lonely prairie."

Yes, if our people here would rough it and deny themselves of the comforts and advantages which those who go West are prepared to do in order to make money, we too could lay by a snug little sum each year, and more of our farms would be owned by their occupants.

On account of the smallpox in Nova Scotia and the sudden break in navigation just at the time, only a few Islanders were in attendance at our Maritime Winter Fair at Amherst. We hope the surrounding circumstances will not affect to any extent the success of the fair.

Prices are good this fall and winter. Poultry is fast becoming a large source of revenue on our Island farms. Turkeys, dressed, 15c. to 16c. per lb. geese,

13c.; chickens, over 3 1/2 lbs., dressed, 12c.; fowl, 9c. to 10c. A chicken that will dress five pounds will realize more to-day than a goose would a few years ago, and with eggs all summer about 15c., and the last three months 20c. per dozen, as compared with 8c. per dozen as the summer price some years ago, should there not be good money in fowl of all kinds? Pork dropped to 7 1/2c. during the soft, mild weather of November, but it is coming up again, and 7 1/2c. to 8c. is now the figures for a good fat hog, from 100 to 200 lbs. We never hear anything now about overfat hogs. Oats are 42c. and 43c. for white and black; roller flour, \$2 per hundred; hay, \$9 per ton; straw, pressed, \$5; winter apples, \$2.50 to \$3 per barrel. C. C. C.

In Defence of the Rising Generation.

Editor "The Farmer's Advocate": In one of your recent issues I noticed an article on "The Dignity of Farming," dealing with a subject which certainly demands the attention not only of the agricultural press, but of all interested in this worldwide occupation, which may be termed "The oldest of arts and latest of sciences." The article argued that young folks were drifting from the farm because of disrespect for the occupation and their surroundings. Of course, I am not going to say that there are no young men and women who leave the farm for this very reason, for I think it is a fact. There are odd ones who do, but the son or daughter who has not enough and more respect for the old folks and their home than to despise them and their old-fashioned ways, cannot get away to town, along with the other scoffers who have gone before them, any too soon. We do not want them in the country. In nearly every part of Ontario, owing to the great flow of emigration to the Canadian Northwest, help is becoming very scarce. Good men (that is, what would have been called good men years ago) are not to be had at any price. The great majority of farm laborers to-day are inexperienced men that a farmer could not afford to keep if the times were not good. There are so many jobs they can't do that a great deal of the heavy drudgery falls on the farmer and his son, with the result that they are not only compelled to work too hard, but too long hours as well, which would not be the case if the work were more evenly distributed, leaving little or no time for recreation. Dairy farming has been growing more profitable every year, with the result that a great many farmers are starting dairying. The farmer and his family actively engaged in this pursuit are almost entirely excluded from society. It is impossible for the farmer's son to do as the young man in town, leave his work and go away for a few weeks' vacation in the summer-time. When fall comes it is not many farmers' sons that can take their rifle and dog and go to Muskoka for a week or two. In winter the work on the dairy farm, especially, is just as plentiful as in summer, and perhaps more important. Now, is it any wonder that the young fellow in the country sometimes envies the young man in town, who locks up shop and leaves all his cares and troubles behind for a few weeks every year. True, the young man in the country could do this as well, but if he goes from home knowing he is leaving those who are behind more work than they are well able to do, the dutiful son will generally sacrifice his pleasure. The result is he stays at home, works hard, hears little of what goes on outside of home, and when he goes out to take part in society he feels awkward, and would rather remain where he is. Years soon roll by; he is no more a young man, has become set in his habits, and before he realizes the fact he has become what the world calls an "old bachelor." It is my opinion, as a farmer's son, that this is the reason we have such untold numbers of old bachelors in this country.

Now, what is the remedy? Shall the condition of affairs be improved by telling the farmer's son he does not fully recognize the dignity of his calling? Will it improve the situation to impress him of the great responsibility resting on his shoulders? Never! What is wanted is something to take the minds of the young people away from their work at intervals, to relieve the monotony of the long winter evenings. Years ago amusement was more plentiful; there was the paring bee, the country party, etc. Nowadays farmers are so busily engaged in the "pursuit of the penny" that they cannot throw open their doors to the young people of the neighborhood, in order that they might make merry and become well acquainted with each other. "The Farmer's Advocate" would be serving the best interests of the agricultural industry if it would encourage more recreation on the farm. Away with so much formalism. Encourage farmers to be more sociable, and you will find that the rising generation will stick to the agricultural occupation, and will recognize it to be what it is, "The backbone of Canada."

D. O. M.

Dominion Exhibition at Sherbrooke, Que.

It is announced that the Dominion Exhibition for next year will be held at Sherbrooke, Que. It will thus be Quebec's turn to participate in the \$50,000 Federal grant, which has long annually handed out for those provinces which have various Canadian exhibitions, and which was first granted in 1903. Having been the province of Quebec's turn at each Province should participate in the grant, we trust some plan will be devised.

DECEMBER THE AGRICULTURAL HANDLING DURE FORCE OF SHIP JANUAR BE GIVE IN PLAC In "Distri Provin the rec such g cultur by the Agricul "Expen act. where they p determ the Mi will no offer pu the au named funds f hibits. male st ceive a pended, seed fa Societie for the rangin animal to recei act rest of chan meetings and hor be conv portan who are educatio ing the factory January Copie eties ma son, Sup Societies B At th the first the Pres show ster, s months; 1.88 lbs. cross-bre and Dex lbs.; daM The l steer; we lbs. Th Capt. T daily gal year-old, horn, we 1.74 lbs. The s best pen three year each; ave was Mr. weighing lbs. As by young prize pen daily gain the case o breed. I figures we 0.62. In cross-bred Editor " We dea Christmas our satisf colors in never yet bear comp as an adv west, and by no othe Th London.

### The New Agricultural Societies Act.

As the dates for the annual meetings of Ontario Agricultural and Horticultural Societies are near at hand, our readers will doubtless be interested in learning something of the laws that will govern the procedure of these organizations. The new laws come into force on February 1st, 1907, but the next annual meetings of these organizations will be held on the dates fixed under the old act, viz., Horticultural and Township societies on January 9th, and District societies on January 16th, and the usual two weeks' notice must be given in local newspapers, together with bills posted in places of common resort.

In future societies will no longer be known as "District" and "Township," but every society in the Province will be placed on the same basis in regard to the receipt of its Government grant, and will receive such grant in proportion to its expenditure for agricultural purposes during the past three years, as shown by their sworn annual statement to the Department of Agriculture. A definition of what may be considered "Expenditure for Agricultural Purposes" is given in the act. Societies will be known by the name and place where they held their last annual exhibition, unless they prefer some other; then the new name must be determined by the members thereof, and approved by the Minister of Agriculture. Under the new law it will not be permissible for horticultural societies to offer prizes for competition at exhibitions held under the auspices of agricultural societies. These last-named organizations, however, may use their own funds for the offering of prizes for horticultural exhibits. Hereafter no prizes can be offered for grade male stock. Spring stallion and cattle shows shall receive a special grant equal to one-half the sum expended, but such sum shall not exceed \$50. Where seed fairs are held the maximum grant shall be \$25. Societies investing in horses, cattle, sheep and hogs, for the improvement of stock, will receive a grant ranging from \$50 downward for each registered male animal in these classes. No society shall be entitled to receive a grant exceeding \$800. Under the new act restrictions in regard to the conducting of games of chance have been made more stringent. The annual meetings to be held in January of district, township and horticultural societies, which for the last time will be convened under the old act, will be the most important ones in the history of these organizations. All who are interested in making of primal importance the educational features of these societies, and in improving the quality and quantity of the products of farm, factory and garden, should attend these meetings on January 9th and 16th.

Copies of the new act governing agricultural societies may be had on application to Mr. J. Lockie Wilson, Superintendent of Agricultural and Horticultural Societies, Parliament Buildings, Toronto.

### Birmingham Fat-stock Show.

At the Birmingham (England) Fat-stock Show, held the first week in December, the grand championship and the President's cup for the best cattle beast in the show was awarded the King's pure-bred two-year-old steer, sired by Royal Duke; age, 2 years 6½ months; weight, 2,028 lbs.; daily gain from birth, 1.88 lbs. The reserve number was Mr. R. W. Hudson's cross-bred heifer, Danesfield Honey Bee (Aberdeen-Angus and Dexter), whose weight at 1,067 days was 1,774 lbs.; daily gain, 1.66 lbs.

The best Hereford was W. H. Cooke's two-year-old steer; weight at 1,013 days, 1,820 lbs.; daily gain, 1.74 lbs. The best two-year-old Aberdeen-Angus steer, Capt. Tounshend's, at 983 days weighed 1,941 lbs.; daily gain, 1.97 lbs. The best cross-bred steer, two-year-old, was Jas. McWilliams' Aberdeen-Angus-Short-horn, weighing at 1,060 days 1,849 lbs.; daily gain, 1.74 lbs.

The special prize, the Cooper challenge cup, for the best pen of mutton sheep, went to Sir R. P. Cooper's three yearling wethers, weighing at 630 days 268 lbs. each; average daily gain, 0.42 lbs. The reserve number was Mr. James Flowers' Hampshire yearling wethers, weighing at 660 days 281 lbs. each; daily gain, 0.42 lbs. As an example of the greater daily gains made by younger animals, it is worthy of note that the first-prize pen of Shropshire wether lambs made an average daily gain of 0.61 lbs., as compared with 0.42 lbs. in the case of the first-prize yearling wethers of the same breed. In the Hampshire class the corresponding figures were 0.42 and 0.66. In the Oxfords, 0.53 and 0.62. In the Southdowns, 0.31 and 0.57. In the cross-breds, 0.32 and 0.57 lbs.

### It Stands Supreme.

Editor "The Farmer's Advocate":

We desire to send you our best wishes for the Christmas season and the coming year, and to express our satisfaction in respect to the cover page advt. in colors in your excellent Christmas number. We have never yet seen any other farm journal which would bear comparison with "The Farmer's Advocate," and as an advertising medium it is, undoubtedly, one of the best, and holds a position, in our estimation, occupied by no other journal in Canada. Yours very truly,

The London Fence Machine Co., Limited,  
London, Ont. A. E. BLASHILL, President.

### Nova Scotia Fruit-growers' Association Meeting.

At Wolfville, on December 12th, the Nova Scotia Fruit-growers' Association convened for its forty-third annual meeting. That is certainly a goodly record, and the present meeting was no exception to the general rule of meetings of this association in the practical value of its sessions. Indeed, practicability seemed to be the watchword all through.

The first session was given over to a discussion of orchard management, more particularly from the cultural side of the question. Prof. Macoun gave it as his experience that fruit from cultivated orchards would keep longer than that from orchards not cultivated, giving as his explanation of this that the fruit did not mature so early in the autumn, and was not, therefore, so nearly ripe when picked. This did not agree with the experience of most Nova Scotia growers present, who have found that fruit from uncultivated orchards in this Province is harder and keeps longer. Indeed, this has been one of the chief excuses of the "sod culturists." Prof. Macoun also urged the importance of aerating the soil. He believed that this was far more important than many—in fact, most—growers realize. Get air into the soil by cultivating, subsoiling, tile draining—any or all of these methods. Soils which are inclined to be damp, or which are allowed to stand year after year in "couch" sod will undoubtedly suffer from lack of oxygen about the roots; for this gas is just as necessary for the activity of root growth as it is for the life of animals. Discussion of this point brought out the fact that there were several orchards in the immediate locality which had, beyond doubt, suffered from this very cause. Prof. Macoun advised strongly against late culture in orchards, and especially with such varieties as the Gravensteins, which tend to rank growth; and he advised the planting of this variety on the driest land in the orchard, which met with most decided approval of the meeting. This splendid variety which has, perhaps, done more than any other one sort to make a name for Nova Scotia apples, has of late been coming into disfavor, because of its tendency to suffer from collar-rot and kindred troubles. But in the opinion of those who discussed the matter, if it were grown as suggested above, on dry land and not over-cultivated, there need be little trouble. Indeed, Mr. S. C. Parker, the Secretary of the Association, gave it as his opinion that practically no trees had been lost where the soil in the orchard had been given what might be termed up-to-date culture; that is, good cultivation up to July 1st, and then seeding to a cover crop. This brought on a discussion of cover crops, and several present spoke very highly of summer vetch as being a crop which will grow well in most soils, yields a larger amount of humus when plowed in, enriches the soil with nitrogen, and does not cost nearly so much as the winter vetch. The writer believes this and crimson clover to be the best two plants for this purpose in Nova Scotia.

Spraying was given an entire afternoon session, and though one might at first be inclined to say, "Can any new thing be said on the subject," yet before the afternoon was over all admitted that we don't know it all yet. The discussion took the form of an "experience meeting," and a great many of those present gave their personal opinions and experiences on the various points. The Vermorel nozzle was by far the most popular, giving a finer spray and saving in Bordeaux. Mr. F. W. Foster, of Kingston, stated that with the old Bordeaux nozzle it took 1½ casks to spray a block of 33 large Gravenstein trees, while with a Vermorel he could do the same work, and do it better, with one cask. As to the number of nozzles desirable in a cluster, opinions differed, but no one went higher than three, and some would cut it down to a single nozzle. In all cases those who spoke on the subject said they had reduced the number over what they formerly used, the reasons given being economy in putting on the spray and keeping up the pressure.

Mr. Burpee Bishop, of Greenwich, gave some very interesting experience with a hand pump in testing the pressure. He had a Spramotor No. 2, and had a pressure gauge put on so he could "know what he was doing." He found that a good man could easily generate a pressure of 120 lbs. at the end of his stroke, but that by the time he had raised the handle and was ready for the next stroke the pressure had gone down to 80 lbs.; that is, there was a fluctuation of 40 lbs. between his highest and lowest pressure. He then got an auxiliary air chamber and attached to his pump, and reduced the variation to 20 lbs. Later in talking to a pump man he was told that if he had filled his air chamber under high pressure before he put in his liquid he might probably have reduced the fluctuation to 10 lbs. Mr. Bishop thought the pressure gauge a practical benefit in keeping up the interest of the man at the end of the handle.

The value of the small quarter-inch hose was strongly urged by several speakers over the ordinary half-inch hose usually used on spray pumps. Mr. W. M. Black, of Wolfville, wore out four sets of half-inch hose on his power-sprayer in one season. He then got a set of quarter-inch hose, such as is used in hydraulic work, capable of standing a pressure of 500 lbs., and these he had used for two seasons, and they were all right yet. While this costs a little extra, it more than pays in the long run, as compared with the half-inch, or even the ordinary quarter-inch.

Mr. Black also advised drying out hose carefully at the end of the season, and storing where it will not get very cold, as it deteriorates much faster if exposed to severe cold.

Prof. Haycock, speaking of adulterated copper sulphate, gave the analysis of a sample which was sold last year in one of the chief orchard sections of the Province. It contained only 16% of copper sulphate, the balance being iron sulphate, which has little value as a fungicide. He gave a very simple test for purity of copper sulphate. Heat the sample. If it is pure it will turn white, and if put in water will dissolve. If it contains iron sulphate this will turn reddish on heating, and then will not dissolve.

The question of Paris green vs. arsenate of lead was discussed at some length. Dr. Fletcher advised against the latter. He thought its color was against it, as it was likely to be mistaken for something else, and he did not believe it had any advantage over Paris green, which he considered good enough. Several growers who had tried the arsenate of lead spoke favorably of the results in their orchards.

Dr. Fletcher then gave a spirited address on insects and insecticides, ridiculing the idea that the Tussock moth, or any other insect, was going to prove a serious obstacle to the fruit-growers of Nova Scotia. If they would spray intelligently, knowing what they were trying to fight, they would be all right.

The question of packing apples and the Fruit Marks Act brought out an animated discussion. Several speakers favored the publishing of all the names of those fined by the inspectors. This was objected to, on the ground that they were not any greater sinners than others, but merely "happened to get caught." Then this last idea was combated, by saying that we do not wait to catch all thieves before giving publicity to those caught, and the same rule should be applied to those who pack fraudulently and so injure their neighbors.

Inspector Vroom gave some very practical suggestions on packing. He said that growers should get rid of the idea that they must have a certain per cent. of No. 2's. A No. 2 apple was a certain definite thing, and a No. 1 apple was another definite thing, and the question of the percentage of each would vary with the season, and with the grower. He would face with average apples, not the largest nor the smallest in the barrel. He believed in good facing, well done, to make the barrel attractive. Asked if it was allowable to brand apples "No. 1 spotted" when they were of good size and color but spotted, he said "No." He thought more attention should be given to our local markets, which annually consume from 60,000 to 80,000 barrels of apples. Asked to define "material waste," which appears in the definition for a No. 2 apple, Mr. Vroom said he would consider it any blemish, as a worm hole or crack, which caused one to cut more deeply in peeling the apple.

Several other important matters were discussed, which the length of this report forbids reporting at length. It was voted that the Executive co-operate with the Ontario F.-G. A. in an attempt to get express rates more reasonable. A strong resolution was passed, urging upon both the Dominion and Local Governments the need of an experimental fruit station in the Annapolis Valley, and that at once. If the Dominion Government will not undertake this, then the Provincial should.

The election of officers resulted in most of the incumbents of last year being re-elected. The staff is as follows: President, John Donaldson, Port Williams; Vice-President, G. C. Miller, Middleton; Secretary, S. C. Parker, Berwick; Asst. Secretary, J. Howe Cox, Cambridge; Treasurer, Geo. Munro, Wolfville. Executive—A. C. Starr, Starr's Point; E. E. Archibald, Wolfville; Col. Spurr, Melvern Sq.; P. Innes, Coldbrook; R. S. Eaton, Kentville.

### Farrowing Contest—License and Liens—Teachers' Salaries.

Editor "The Farmer's Advocate":

In reading your valuable paper I have noticed at different times reports of the sow-farrowing contest, which are good. The females of such litters should be kept for breeding purposes, especially if well bred. I have a pure-bred Berkshire sow that farrowed thirty-eight pigs in three litters. I have sold the sows from a litter of fifteen spring pigs. I sold eight hogs at six months and eleven days old that averaged 211½ lbs. They were from a Tamworth sow, crossed with a Berkshire hog. I believe this cross to be one of the best.

I have also been reading different articles on stallion license and lien act. My opinion of the Lien Act is that it will cause a great deal of trouble, and will not be satisfactory even to the stallion owner, and much less to the farmers. As for the Government inspection and licensing of stallions, I do not think it is at all called for, and should be looked upon by the farmers as a piece of imposition. I would like to see the commissioner that could choose a stallion suitable to cross on all mares in a section, even a small section. Our mares are not near enough of the same class. We must have our choice, and from as many as we can possibly see. Every farmer should study his own needs, and I believe they do in Elgin, as horses sell well, bringing \$200 each and upwards, some selling for \$1,000 and more. The last one I raised and sold

was syndicated for two thousand dollars. If the Government will allow us the privilege of managing our own personal rights, we will possibly pay our honest debts, taxes included, and have a rake-off fund for superannuates.

Still another subject I would like to hear discussed is the fixed salaries of school teachers by the Government. While it is certain that teachers have been receiving too small a wage, yet it seems unfair that a teacher that has a school of an average attendance of ten or twelve should receive the same, or fifty dollars in advance, of the teacher that has a school of forty or forty-five. It, no doubt, will save the teachers forming a union. Please let us have this discussed.

AN OLD SUBSCRIBER.

### So Near and Yet so Far!

The weather has been extremely cold since December came in, the thermometer registering below zero quite often. Most of the harbors are ice-bound. Shipping, except by the winter boats, is over. Markets have been good all through the fall, and there is still a brisk demand for all kinds of farm produce in Halifax, Sidney, St. John, and other Maritime cities. Just now we have a freight blockade, both at Pictou and Charlottetown. The winter steamer "Minto," which is on the Charlottetown-Pictou route, and only making the round trip three times a week, can't begin to keep up with the work. Island merchants have their Christmas goods tied up at Pictou, and for want of transportation will have them on their hands after the Christmas trade is over, and shippers of produce from the Island cannot fill their orders for the same reasons. As this is a time of the year when trade is always most active, all classes of our people will suffer seriously by the want of quick transportation. The third steamer, so faithfully promised by the Department of Marine, has not and will not come to P. E. Island. Farmers, shippers and merchants must suffer this terrible handicap in competition in trade with the other Provinces of Canada. The Str. Stanley is running on the Summerside-Tormentine route, but as there is a privately-owned railway between Tormentine and the Intercolonial Railway, it is too expensive a way to ship freight, and very little goes over that route. Constant communication through the winter, by means of a tunnel, is the only solution of the difficulty, and till then P. E. Island, notwithstanding its productive soil and sturdy, energetic inhabitants, cannot succeed against the sharp competition of other Provinces, who, with constant communication with Maritime markets, by two trunk lines of railroad, and one of them owned by the people of Canada, can supply the markets of the cities and towns of Maritime Canada, while our farm produce is tied up here at their very doors.

Patrons of the cheese factories have all been paid off, and are feeling pretty good over getting from 95c. to a dollar per hundred for milk supplied. Their only regret is that they had not better cows and more of them. Considerable of butter is being made at some of the winter dairy stations, and is selling as high as 25 cents a pound, and still butter is scarce. Considerable of dairy butter was brought here from Montreal late in the season, and found a ready market. Our Government are disposing of their stock farm. The cattle on it were found to be tuberculous last year, and have been disposed of. The farm as managed the last decade has not been a benefit to the Province, and has always come out with a deficit at the end of each year. It is now to be sold, and the Dominion Government are going to start a branch experimental farm, either on the old site or somewhere else in the vicinity of the capital. Dr. Saunders has been here looking over the different locations available, but as far as we know has not decided on one yet.

A great amount of this year's crop of hogs is being marketed just now. Buyers from Montreal, St. John, Halifax and Sussex are competing with our local packers for it, and the price is good, as high as 8½c. being paid for carcass pork. Poultry is high; 12c. per pound for geese and ducks; 8c. to 10c. for chickens. Oats are worth 43c., and potatoes 30c. Ordinary beef is selling for 6c. by the carcass.

Summing up for the past season, there is no question but our most profitable lines of export have been dairy produce, poultry, eggs, sheep and hogs. We will do well to produce more along these lines, as there is good prospect of the demand for them continuing.

W. SIMPSON.

### Coming Events.

Eastern Ontario Dairymen's Association; Ottawa, City Hall, January 9, 10, 11, 1907.

Western Ontario Dairymen's Association; London, January 16, 17, 18; convention in Auditorium; exhibits in City Hall.

The Percheron Society of France, through its President, Mr. Chas. Aveline, has donated to the Department of Animal Husbandry, Ohio University, a beautiful bronze figure of a Percheron horse, to be competed for annually by the students taking instruction in horse judging, the one showing the greatest proficiency having his name inscribed on the base. Mr. Aveline visited Ohio in 1904, the guest of McLaughlin Bros. of Columbus, through whom he became interested in the University, of which Mr. J. B. McLaughlin is a graduate.

### Creamerymen's Meeting at Guelph.

A meeting of the creamerymen and buttermakers of Western Ontario was held in the lecture room at the Dairy School, Guelph, on December 13th. A large number of buttermakers were present, and took a lively interest in the proceedings. Mr. John McQuaker, of Owen Sound, acted as chairman. Prof. H. H. Dean, on behalf of the President, extended a hearty welcome to the creamerymen. The Professor regretted very much that, owing to the ever-increasing duties devolving upon him as Professor of Dairying, in managing the dairy school and dairy herd, he was unable to visit the creameries and cheese factories of the Province.

In his address he emphasized the following points in connection with our butter industry:

We need less competition and more co-operation. It was a bad thing for the industry to try to draw cream from one another's territory. Western butter was not as good in quality in 1906 as in 1905, warmer weather causing more sour cream. The chief defect in Western Ontario butter was sourness in flavor, caused by too much acid in the cream before churning. Paying for cream according to quality is the remedy for poor cream. Grade the cream, and pay from one to two cents per pound of butter extra for cream testing not over 2% acid and not under 25% butter-fat.

Buttermakers must hold before themselves a high ideal if they are going to succeed.

Mr. J. W. Mitchell, Supt. of the Dairy School, Kingston, in his address stated that to make improvement in the quality of our butter we must get a better quality of raw material. Train the patrons to take better care of the cream, by putting in a supply of ice. All cream should be cooled to 50 degrees at the farm. Cream should be gathered not less often than three times a week. Cream wagons should have covers. Individual cans are the best system for collecting cream, and careful, intelligent cream haulers are a necessary feature.

He strongly advocated pasteurizing all the cream for making export butter, and using a pure culture.

Mr. R. M. Player, of Walkerton, gave a short address on his experiments during the past season in paying a premium of ½c. per pound of butter for all cream testing 26% fat and over. He stated that on some routes the average test went up from 21% to 28% fat after making the offer, and the cream was cleaner and sweeter. He considered the money well spent.

In the discussion following it was stated that a large percentage of the cream delivered to the creameries in the northern district tested less than 20% fat, and that about 80% of the creamery patrons used cream separators.

A most interesting subject was taken up by Mr. Frank Durdle, of Brussels, "Weighing the samples of cream for the Babcock tester instead of measuring them." Mr. Durdle is the only buttermaker in Ontario who has practiced this method in his creamery work. He is a strong advocate of the system, claiming it gives entire satisfaction to the patrons, which means a great deal in the creamery business, for the continual kick in creamery sections is, "my test is too low."

The principal objection raised in discussion was the extra time it would take to do the testing by weighing the samples. Mr. Durdle said it took him only from 15 to 20 minutes longer to weigh than to measure the sample with the pipette for each machine full.

Mr. W. W. Harris, the proprietor of the Brussels creamery, stated that he would not think of going back to measuring the samples with the pipette.

The accuracy of pipettes was brought up here, and some of the buttermakers stated that there was as much as 4% difference in pipettes. This shows us the necessity of having our dairy glassware properly graduated and stamped by the Government. We hope our Dominion Dairy Commissioner will bring this matter before Parliament.

Mr. Geo. H. Barr, Chief Instructor, stated that there were 74 creameries in operation in Western Ontario. Only five of this number are separator creameries, showing that the creamery business in Western Ontario is almost entirely cream-gathering; 57 creameries used the Babcock tester in 1906; in 1903 only three cream-gathering creameries were using the Babcock tester.

Three boxes of butter which were in the July scoring contest were shown to prove to what extent mould would grow on butter. Mr. Barr thought our dairy industry was of sufficient importance to warrant the appointment of a dairy bacteriologist to devote his entire time to questions relating to dairying. Thousands of dollars are lost every year through mouldy butter, and no one seems to be in a position to investigate the trouble.

A report on experimental butter, made at the Glenora creamery during the season by the instructors, was given by Mr. Barr, which was of considerable interest to the buttermakers. All this butter will be at the Winter Dairy Exhibition at the annual convention, where the buttermakers will have an opportunity to examine it.

### Hogate Sells More Fillies.

Last fall when the record price of \$364 for Clydesdale fillies at auction was made at J. B. Hogate's sale, the vendor promised his patrons that they should have a chance to buy another lot of as good individuals as could be purchased across the water. On December 20th the opportunity came, and the promise of Mr. Hogate was fulfilled. Twenty-six head were sold, at an average of \$351, and every lot was a bargain. "Fashionable" blood was not represented in all these fillies, but, without exception, they were a big-bodied, strong-boned, active, good-quality selection. Scale and substance is Mr. Hogate's first demand in Clydesdales, as this insures wear and usefulness. Most of the lot were two-year-olds, and many were in foal, and the wonder is that such stock can be turned over to the ultimate owners at the prices usually realized. Certain it is, farmers could not have a better opportunity to stock their farms with the class of mares that the hard times of the nineties robbed them of. They should be more eagerly bought up. As it was, the bidding was fairly spirited from a large crowd right up to the last lot. Different parts of the country were represented, one buyer being present from Manitoba. The highest price paid was \$489, for Kate of Halfaklin, the first filly brought in. Four others brought over \$400, but most of the consignment were closed out around \$350. The following is the sale list:

Jewel, 1904; Mr. Young, Blackwell.....	\$370
Fife Lass, 1905; John Burr, Bridgen.....	385
Lady Damere, 1904; E. W. Shields, Milton.....	310
Leckie Maid, 1904; W. H. Nesbitt, Roland, Man.....	320
Rose of Brougham, 1904; John Gardhouse, Highfield.....	260
Jess Darling, 1904; Mr. Morgan.....	410
Kate of Westnewton, 1904; W. H. Hutton.....	340
Jess, 1904; W. H. Nesbitt.....	265
Smiler of Mosside, 1904; Mr. Carlow.....	300
Black Charmer, 1904; Morgan.....	480
Nell of Deanicole, 1904; Carlow.....	325
Lady Mark, 1904; W. H. Nesbitt.....	320
Elsie of Allonby, 1904; A. Wilson, Sylvan.....	400
Miss Thorn, 1904; E. W. Shields.....	360
Naemoor Rose, 1904; Mr. Shaver, Islington.....	390
Naemoor Queen, 1904; A. Avery, Kincardine.....	335
Jennie of Southam, 1904; Morgan.....	315
Kate, 1903; Morgan.....	360
Molly, 1903; W. Leonard, Craigville.....	405
Kate of Halfaklin, 1903; E. W. James, Blackwell.....	440
Mabel, 1903; A. Wilson, Sylvan.....	350
Pottchie Queen, 1903; Morgan.....	410
Beauty of Carperby, 1902; I. Wilson, Sylvan.....	325
A three-year-old Canadian filly, to Mr. Turner, Streetsville.....	245
Hackney filly, two years old.....	230

### Canadian Cattle Season in Britain.

On a review of the season, there appears to be a unanimous opinion among shippers that it has not been so satisfactory from a financial point of view as anticipated. Prices for cattle have been too high on the Canadian side, while the returns from British markets were most irregular, those for the current week probably being the lowest on record. This, no doubt, is attributable to the muddling character of the ranching stock, which, in large part, made up the shipments of the last two months. Dealing with the total direct consignments for the season, there is an increase compared with last year of some 10,000 cattle, but a decrease of quite 9,000 sheep. The distribution of the shipments has been somewhat changed, 39.60 per cent. going to London, 24½ per cent. to Liverpool, and nearly 24½ per cent. to Glasgow. Bristol only secured a fraction over 6 per cent., Manchester getting 4.88 per cent., while Newcastle and Cardiff only had 0.37 per cent. In the matter of sheep fully 45 per cent. went to Liverpool, nearly 35½ per cent. to Glasgow, and the balance, 19½ per cent., to London. Some dissatisfaction is expressed as to the markets at Manchester, Glasgow and Bristol, exporters having reason to believe that their interests are sometimes sacrificed owing to circumstances more or less local, which are not met with in other markets.—[Scottish Farmer, Dec. 8th.]

### What Keeps Young Men on the Farm?

In writing for an extra copy of the Christmas number of "The Farmer's Advocate" to send to a friend in Ohio, Mr. S. A. Pelton, of Brant Co., Ont., adds: "I think your paper is doing more to keep young men on the farm than anything else in the country. I wish you a Merry Christmas and a Happy New Year."

A strong and representative Canadian syndicate has purchased, by tender from the Ontario Government, 46 acres in the bed of Cobalt Lake, for which the price of \$1,085,000 is paid. The money required by the syndicate was over-subscribed several times. The company will be called the Cobalt Mining Co., and will have a capital of between \$4,000,000 and \$6,000,000. An American tender of \$51,500 for Kerr Lake was considered too low, and the property was withdrawn.

A tender, offering a bonus of \$38,100 for mining leases for three parcels of land on the right-of-way of the Temiskaming and Northern Ontario Railway, in addition to a royalty of 25% on the gross value of ore mined, was also accepted.

MARKETS.

Toronto.  
LIVE STOCK.

The receipts of live stock at the City and Union Stock-yards, Toronto Junction, during the past week have, unexpectedly, been large. Trade was good at the beginning of the week, but dull at the close, too many cattle coming forward of the half-finished or warmed-up class. Prices generally were 25c. to 30c. per cwt. lower at the close of the week than at the beginning.

Exporters.—English markets being reported stronger, prices were firmer here, ranging from \$4.40 to \$5 per cwt., the bulk going at \$4.50 to \$4.70. Export bulls sold at \$3.50 to \$4.50.

Butchers'.—Christmas cattle sold at fair prices from \$4.50 up to \$5 for good useful cattle, plenty good enough for the best people in the land. Loads of good cattle sold at \$4 to \$4.50; medium at \$3.60 to \$3.90; common at \$3.25 to \$3.50; cows at \$2.50 to \$3.50; canners at \$1 to \$1.50 per cwt.

Feeders.—Few offered, and not many wanted. Steers, 1,000 to 1,100 lbs., sold at \$3.25 up to \$3.80 per cwt.; stockers, 500 to 800 lbs. each, \$2.25 up to \$3.

Milkers and Springers.—Trade good; supply not too large, and prices firm at \$30 to \$60 each, the bulk selling at \$40 to \$55.

Veal Calves.—Deliveries moderate; market strong for good veal calves, with prices firm at \$3.50 to \$7 per cwt.

Sheep and Lambs.—Fairly large receipts met brisk markets, at firmer prices. Export ewes sold at \$4.50 to \$4.90; lambs, \$5.75 to \$6.25, with a few picked lots at \$6.50 for export purposes.

Hogs.—The run of hogs has not been heavy, but prices declined 25c. per cwt. Selects are quoted at \$6.15; lights and fats, \$5.90 per cwt., fed and watered.

Horses.—The special sale of lumber-camp horses, over 100 of which were disposed of at the Repository was the feature this week. There were buyers from all the principal towns of Ontario, the result being that the sale was a good one at fair prices for this class of horses. Burns & Sheppard report the following prices: Single roadsters, \$125 to \$165; single cobs and carriage, \$130 to \$165; matched pairs, carriage horses, \$200 to \$300; delivery horses, \$150 to \$175; general-purpose horses, \$160 to \$190; heavy-draft, \$165 to \$200 each.

BREADSTUFFS.

Grain.—Wheat, No. 2 white-winter, 69c. to 70c.; No. 2, red, 70c. Manitoba, No. 1 Hard, 80c.; No. 3, 77c.

Corn.—No. 3 yellow, 51c., at Toronto. Oats.—No. 2 white 36c.; No. 2, mixed, 35c.

Rye.—72c. bid, at Toronto. Barley.—No. 2, 51c.; No. 3X, 50c.; No. 3, 50c.

Peas.—No. 2, 79c. bid, sellers asking 82c. Buckwheat.—53c. bid.

Bran.—\$18 to \$18.50. Shorts.—\$20 to \$21.

Flour.—Manitoba patent, \$3.75, on track, Toronto; Ontario, 90 per cent. patents, \$2.70 bid for export; Manitoba patents, special brands, \$4.50; strong bakers', \$4.

COUNTRY PRODUCE.

Butter.—Receipts fair; market steady. Creamery prints, 28c. to 29c.; creamery boxes, 25c. to 26c.; dairy lb. rolls, 25c. to 26c.; tubs, 23c. to 24c.; bakers' tub, 17c. to 18c.

Eggs.—Strictly new-laid, 35c. to 40c., with few offering; cold-storage, 22c. to 23c.; pickled, 20c. to 21c.

Cheese.—Market steady. Large, 14c. to 14c.; twins, 14c. to 14c.

Honey.—Strained, 12c. per lb.; combs, \$1.50 to \$2.65 per dozen.

Evaporated Apples.—8c. to 9c. per lb. Potatoes.—New Brunswick Delawares easier at 75c. to 80c. per bag, by the car lot, on track, at Toronto. Ontario potatoes, 65c. to 70c. per bag, per car lot.

Poultry.—Deliveries large; prices easy, as follows: Turkeys, 11c. to 13c.; geese, 10c.; ducks, 9c. to 10c.; chickens, 10c. to 11c.; old fowl, 7c. to 8c. per lb. Hay.—Prices firm. Baled, \$11 to \$12 for No. 1 timothy; No. 2, \$8 to \$9, car lots, at Toronto.

Straw.—Baled, \$6 to \$7.

THE CANADIAN BANK OF COMMERCE

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Beans.—Market steady. Hand-picked, \$1.50 to \$1.60; primes, \$1.35 to \$1.40.

SEEDS.

Market steady, with little doing. Prices are unchanged as follows: Alsike, fancy, \$6.30 to \$6.60; alsike, No. 1, \$6 to \$6.20; alsike, No. 2, \$5.25 to \$5.40; alsike, No. 3, \$4.50 to \$4.80; red clover, No. 1, \$7.20 to \$7.50; red, No. 2, \$6.50 to \$6.90; timothy, No. 1, \$1.50 to \$1.80; timothy, No. 2, \$1.20 to \$1.40.

HIDES.

E. T. Carter & Co., 85 Front St., have been paying the following prices: Inspected hides, No. 1 steers and cows, 11c.; No. 2 steers and cows, 10c.; country hides, cured, 10c. to 10c.; country hides, green, 9c. to 9c.; calf skins, No. 1, city, 12c.; calf skins, No. 1, country, 11c.; lamb skins, each, \$1 to \$1.10; horse hides, \$3.50 to \$3.75; horse hair, No. 1, per lb., 30c.; tallow, per lb., 5c.

Montreal.

Live Stock.—Christmas beef was offering here last week, and, as some of the stock was extra choice, prices were very high. The offerings were large, and a big trade was done. A few choice animals were taken at 6c. per lb., and several fine animals changed hands at 5c. to 5c. The great bulk of the choice butchers' stock, however, ranged from 4c. to 4c.; good, 3c. to 4c.; medium, 2c. to 3c., and common, 1c. to 2c. It is stated that one large heifer was sold at upwards of 7c. per lb. Sheep and lambs were in very light supply, and lambs were in active demand and strong in tone; 6c. for fine, and from that down to 5c. for good. Sheep mostly 3c. Receipts of calves becoming very light, quality generally better than it has been. A few calves were sold at 5c. and 5c., but the bulk of the good stock ranged from 3c. to 4c. There were very few hogs offered, the greater portion of the receipts being on contract. The general tone was easy, and, while 6c. was paid for contract stuff, it was thought that purchases would be made at lower prices before the end of the week. Some good hogs were taken at 6c.

Horses.—The market for horses shows an improvement. Quite a little buying demand has appeared, a number of lumbermen and carters being in need of horses. Buyers who have been out through the country declare they never found it so hard to make purchases before. Heavy-draft horses, 1,500 to 1,700 lbs. each, \$250 to \$300 each; light-draft, 1,400 to 1,500 lbs., \$200 to \$250; express, 1,100 to 1,300 lbs., \$150 to \$200; common drivers, \$100 to \$150; old, broken-down horses, \$50 to \$100, and choice saddle or carriage, \$350 to \$500 each.

Dressed Hogs.—Abattoir, fresh-killed hogs are in fair demand, and prices are steady at 9c. to 9c. per lb., and less in large lots; country-dressed, 8c. to 8c., according to quality and quantity. Lard, 12c. to 13c. per lb.

Poultry.—There has been a good demand, and prices are quite moderate for this time of year, being less than a year ago, although it would seem that supplies have been lighter. Of course, turkeys have been the great feature of the trade. The quality of the stock was

never better, and the weather was favorable, so that there was no trouble in putting through sales. Choicest turkeys were quoted at 15c., in a large way. Good stock, 14c. Ducks were scarce and ranged from 11c. to 12c., while geese were also pretty much neglected, at 10c. to 11c. There were some special chickens, these selling at 12c., others bringing 10c. to 11c. Quite a demand existed for them. There was a moderate demand for fowl, but the quality showed a wide range, so that prices ran all the way from 7c. to 9c. per lb. In fact, a few specials were reported at 10c.

Butter.—Demand has been very active, of late, owing to the holiday trade. The make throughout the country is very light, and stocks here are likewise, and becoming lighter every day. Some creamery has been brought back to Canada from England, which was shipped across some time since, but did not meet with a ready sale there. Considerable butter has been shipped out of the city to country points, and more is asked for. Some dealers claim to be getting 26c. for their fancy creamery, but others say they would like to sell at 25c., and are glad enough sometimes to get 25c. From this, prices range down to 25c. for good butter. Dairies are still scarce, and selling at 20c. to 23c. per lb., according to quality.

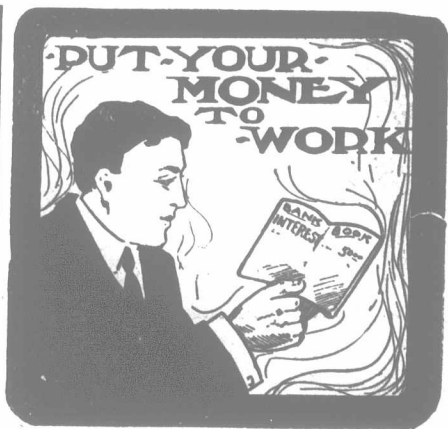
Cheese.—Market showed little or no change last week. There is a fair demand, and prices are steady, at about 11c. to 12c. for November makes, and 4c. more for Octobers. Dealers are looking for a renewal of demand shortly after the New Year.

Eggs.—There has lately been a demand from England for cold-store eggs, and it would appear that there is need of eggs there, as seconds will be accepted, which is unusual. There is also a demand from outside places, showing that there is a shortage somewhere. Many think, however, that there is a surplus supply somewhere, and that it will be coming out one of these days. Meantime, prices are firm and unchanged at 21c. to 23c. for cold-storage, and 24c. to 28c. for selects, and 20c. to 22c. for pickled.

Grain.—Congestion along the lines of railways, and more particularly in the terminals here, is causing a great scarcity of available grain, oats, etc., and prices are accordingly firm. Oats are steady at 42c. for No. 2 oats, store, 41c. to 42c. for No. 3, and 40c. to 41c. for No. 4. There is but a dull demand for wheat, and prices are steady, at 87c. for No. 1 Manitoba Northern, store, and 78c. for Ontario white winter. Peas are steady at about 90c.

Hay.—The car situation is responsible in large part for the scarcity of stock, on spot. The G. T. R. will not haul hay into the city, it is claimed, and teams have to drive across the bridge and bring it in by the sleigh load. However, there is sufficient for a moderate demand, here, and while prices are very strong on spot, they are not so much so to arrive. No. 1 timothy is obtainable in large lots at \$14 to \$14.50 per ton, \$13 to \$13.50 for No. 2, and \$12 to \$12.50 for clover.

Millfeed.—The market has been fairly steady since the recent advance in the price of bran. There is a very active demand from all points, and millers can hardly get sufficient to supply this demand. Bran, \$21 per ton, in bags, and



AT THE  
**BANK OF TORONTO**  
Hidden Treasures  
are unprofitable; do not bury your money or keep it idle in the house. Deposit it in the Bank of Toronto Savings Department, where it will grow. Interest is added to all Savings Balances twice a year.  
**TOTAL ASSETS - \$37,000,000**  
Head Office, Toronto, Can.

shorts, \$22 for Manitobas. Ontario bran and shorts are about the same.

Flour.—Trade has been fair, and prices very steady at \$4.10 per bbl., in bags, for Manitoba strong bakers, and \$4.60 for patents.

Seeds.—Dealers offering \$5 to \$6.50 per bushel, at shipping points, for alsike, and \$6.75 to \$7.75 per bushel for red clover.

Potatoes.—The market for potatoes showed much firmness, and prices advanced 3c. to 5c. per 90 lbs., owing to the activity of demand. White stock is the favorite, and prices for this are about 72c., on track, some asking that figure for half white and half red, per 90 lbs. Dealers are re-selling, on track, at 74c. to 76c., and in a jobbing way, bagged and delivered into store, at 85c. to 90c. Choicest Green Mountain stock is quoted at 90c., in a jobbing way.

Chicago.

Cattle.—Common to prime steers, \$4 to \$7.40; cows, \$2.75 to \$4.75; heifers, \$2.60 to \$5; bulls, \$2.40 to \$4.50; calves, \$2.75 to \$8.50; stockers and feeders, \$2.40 to \$4.50.

Hogs.—Choice to prime heavy, \$6.27½ to \$6.32½; medium to good heavy, \$6.20 to \$6.27½; butchers' weights, \$6.27½ to \$6.32½; good to prime, mixed, \$6.20 to \$6.27½; packing, \$6.20 to \$6.25; pigs, \$6 to \$6.30.

Sheep and Lambs.—Sheep, \$3.75 to \$5.75; yearlings, \$4.60 to \$6.25; good to choice lambs, \$7 to \$7.75.

Buffalo.

Cattle.—Prime steers, \$5.65 to \$6.15; shipping, \$4.75 to \$5.50; butchers', \$4.25 to \$5.35.

Veals.—\$4.50 to \$9.25.

Hogs.—Heavy, mixed Yorkers and pigs, \$6.50 to \$6.55; roughs, \$5.75 to \$5.90.

Sheep and Lambs.—Lambs, \$5 to \$7.40; wethers, \$5.25 to \$5.50; ewes, \$4.75 to \$5; sheep, mixed, \$3 to \$5; Canada lambs, \$7 to \$7.25.

British Cattle Market.

Canadian cattle in the British markets are quoted at 10c. to 12c. per lb.; refrigerator beef, 8c. to 8c. per lb.

The Shorthorns advertised by L. K. Weber, of Hawkesville, Waterloo Co., Ont., in this issue, are of the best of Scotch breeding, rich in Cruickshank blood, full of size and quality. The females of breeding age are all in calf to Good-morning (imp.), by Dawn of Morning, and tracing to the Miss Ramsdens on the dam's side. He is a rich red, low-down, and of great thickness and depth of body. If interested, write for prices and particulars.

Mr. R. H. Harding, of Thorndale, Ont., like other Canadian breeders, was remarkably successful at the Chicago International with his exhibit of Dorset Horned sheep, winning three firsts and five seconds, as well as several seconds where no money prizes were given.



## Life, Literature and Education.

[Contributions on all subjects of popular interest, whether relating to the Literary Society discussions or not, are always welcome in this Department.]

The following are the essays on Tennyson's "Break, Break, Break," which were omitted last week.

### ESSAY I.

The poem is purely emotional, and for this reason it is as difficult for us to grasp its elusive charm for the purpose of defining it as it was for Tennyson in his first grief to analyze that emotion. Later he wrote a longer poem on the same subject, in which he held up each phase of his emotion and analyzed it as minutely as a botanist does a rare plant. But that was after the calmness of "mild-minded melancholy" had succeeded the first outburst of grief and despair.

Because it was written under stress of great grief, it appeals to us all as the expression of our own experience. Many of us have yearned for the "touch of a vanished hand and the sound of a voice that is still," and have felt the lack of sympathy between ourselves and those unacquainted with the deeper sorrows of life.

The arrangement of ideas is so in harmony with the mood depicted that it brings the experience very closely home to us. Our minds may be diverted for a time by outward and visible things, just as the writer notes the children and sailor folk; but they are noted with a feeling of aloofness that we all understand. After noting the passing of the ships, again comes the dirge-like "Break, break, break," of the opening of the poem. The mind has returned to its absorption in its grief. The sea stands for nothing specific, but by its perpetual murmur on the shore attunes the soul to the keynote of sorrow, and preaches the relation of suffering to the infinite. Observe the subtle change introduced in the refrain. The first stanza gives us the appropriate atmosphere of grief, with the waves breaking upon the "cold, gray stones"; in the last stanza, as if with the fruitlessness of despair, the sea breaks at the base of its inaccessible crags.

MRS. J. M. PARLOW,  
"Greystone Hall"

Dundas Co., Ont.

### ESSAY II.

The poem, as a whole, is a masterpiece of composition. The thoughts of the poet are so vividly brought out in it that you would naturally suppose that Tennyson was living in a place near to the sea at the time of its composition; but instead of this he was far inland. No doubt he had often stood on the seashore and watched the waves break on the rocky crags. Doubtless, too, he had often watched the fisherman's boy, the sailor lad and the stately ships. These images proved to be the living pictures of memory best suited to immortalize the remembrance of his departed friend.

Arthur Hallam, from boyhood, was a young man of such a singularly sweet disposition that his impression on Tennyson was lasting. That they were boon companions, of like dispositions, temperaments and tastes, goes without saying. This being the case, it was only natural that they should be drawn together as friends that sticketh closer than a brother.

Hallam was travelling abroad when he died. Tennyson, on hearing the sudden news, was thrown into a deep grief that seemed to find a partial expression and relief in the beautiful poem, "Break, Break, Break."

The charm of the poem consists (1) in its brevity. Much is contained in little. So full is it of meaning, and so natural is the train of thought contained therein, that scarcely a single word could be omitted without marring the whole.

(2) In its simplicity. It is free from newly-coined words. It contains not a single expression that the ordinary intellect cannot grasp the meaning of, and yet so perfectly do they fit that you almost feel the sorrow that was stirring him within.

(3) In its purity. Purity of thought calls for purity of expression. We have it here as it is seldom found in the works of poets. Tennyson, the man of Christian virtues, was the poet of the heart and affections, the poet of purity, simplicity and brevity. These are the characteristics that charm in all his works, especially this poem.

S. WESLEY SWITZER,

Peel Co., Ont.

### ESSAY III.

In style, "Break, Break, Break," is essentially a mood poem; that is, one which gives expression to some aspect of feeling, such as hatred or love of action, happiness, regret, longing or remorse. The object of such a poem is, therefore, not to tell a story, and yet in it some story may be incidentally told and scenes depicted, not for their own sakes, however, but only to heighten the desired impression. Thus, in this particular poem we have a vivid picture of the wide expanse of sea dotted with the ships—the same sea which had brought "up from the underworld" the last remains of the poet's friend; and perhaps the same ship, laden with "its dark freight, a vanished life." And while describing the little harbor, nestling away beneath the overhanging chalk cliffs of England, Tennyson must have been thinking of the last resting-place of Arthur Hallam, the lonely little church of St. Andrew.

Geo. Stewart calls this poem "The loveliest lyric ever written;" and there are three prominent characteristics which constitute its loveliness and charm. First, Nature is intermingled with its passion and emotion. The picturesque "haven under the hill," the sea breaking at the foot of its crags, "the stately ships," all go to make up one perfect picture and a fit setting for the poem itself. Secondly, by the harmony of sound and sense, and the quick changes of meter, we can almost hear the dirge-like sounds of the sea as it echoes and sobs on its "cold, gray stones"

and in among the caverns of the low-lying cliffs.

Leaving the external beauty, and turning our attention to the deeper meaning of the poem, we find its real charm to lie in the innermost thoughts of the poet's own heart. This little lyric is especially characteristic of Tennyson, for of all the poets he alone gives expression to that seemingly inexpressible longing for the past, "the pathos of inevitable change," as:

"What vague world-whisper, mystic pain  
or joy,  
Through those three words would haunt  
him when a boy.

Far, far away!"

and:

"So sad, so strange the days that are  
no more."

In "Tears, Idle Tears," Tennyson gives expression to the "wild regret" for unrequited love, but in "Break, Break, Break" we have the deep, unutterable longing "for the touch of the vanished hand," "for the sound of the voice that is still." And in these few words lies the charm of the poem, for they always have and always will touch a responsive chord in the hearts of all mankind.

R. H.

Haldimand Co., Ont.

The above is a very excellent essay. In one or two points, however, it may be found wanting. (1) Hallam was not drowned, as this essay would imply. He died at Vienna, but was, of course, brought home by ship. This mistake, however, does not impair the value of the essay from a literary standpoint. It is due merely to lack of historic knowledge of the circumstances under which the poem was written, and by no means affects the interpretation of the poem itself. (2) R. H. says: "Of all the poets, Tennyson 'alone' gives expression, etc., etc." This may be open to challenge. R. H. has surely forgotten Wordsworth and many minor poets who have expressed longing for the past.

### ESSAY IV.

To Tennyson belongs peculiarly the power to describe the dumb, aching pain of the human heart, and to express the utter loneliness and deep longing of human nature. In this poem that power is displayed in a remarkable degree. He voices that passionate longing for those we have lost as only one could who has had the experience. Yet the grief is not loud and wailing; it is rather the almost inarticulate cry of an overburdened heart. It is in this wistfulness of feeling and in the revelation of its depth that a large part of the charm of the poem lies.

Another attraction lies in the keen sympathy of nature. The mood of the sea harmonizes exactly with the poet's own mood. The emotion is brought out almost as much in the dull, gray scenery of the coast as in the more direct expression. What a picture of dreariness is presented by the monotonous breaking of the waves on the "cold, gray stones." The picture is not all dreary, however. The children shouting and singing form a pleasing contrast and

give a lighter touch to the poem. Nor does the majesty of the scene escape notice. The stately passage of the ships seems to illustrate so well his friend's peaceful voyage over the Sea of Life.

Then, again, the form and rhythm of the poem deserve attention. The very movement of the stanzas expresses so completely the dumb grief and pain, while the "Break, break, break" of the waves emphasizes greatly the loneliness. The arrangement of the stanzas is also very happy. First we see only the sea beating on the rocks, then the scene widens out till we see the whole bay, with the lad singing in his boat, and in the distance the ships passing quietly on to their haven. Then we are brought back again to the crags, and the realization that:

"The tender grace of a day that is dead  
Will never come back to me."

The poem, as a whole, shows Tennyson's wonderful attention to detail and effect. Everything is brought into harmony, and every line and stanza is polished until it expresses perfectly each image and thought.

L. Hamer.

Simcoe Co., Ont.

This essay, also an excellent one, revealing very fully the writer's keen sense of the emotion of the poem, is somewhat open to adverse criticism. The children playing, the sailor lad singing, are not brought in to give a lighter vein to the poem, but are spoken of simply because the poet, in noticing them, feels the contrast between their light-heartedness and his sorrow so keenly. Again, we scarcely think the use of the word "polished" here is advisable. Although Tennyson often did polish his work, so that the reader may feel his conscious effort in doing so, this little poem seems a spontaneous outburst of the heart. One cannot think of anyone deliberately "polishing" such a poem as "Break, Break, Break."

### FROM "IN MEMORIAM."

Mr. R. H., Haldimand Co., asks for the publication of some of the stanzas from "In Memoriam" showing the depth of Tennyson's grief at the death of Hallam. He asks for section XIX. We reproduce this section, also XXVIII. and XXX., which were written about the first Christmas after Hallam's death. The reference to the Danube will be understood when it is remembered that Hallam died at Vienna. He was buried near the Severn, of which the Wye is a tributary:

### XIX.

The Danube to the Severn gave  
The darkened heart that beat no more,  
They laid him by the pleasant shore,  
And in the hearing of the wave.

There twice a day the Severn fills;  
The salt sea-water passes by,  
And hushes half the babbling Wye,  
And makes a silence in the hills.

The Wye is hushed nor moved along,  
And hushes my deepest grief of all,  
When filled with tears that cannot fall,  
I bring with sorrow drowning song.

The tide flows down, the wave again  
Is vocal in its wooded walls;  
My deeper anguish also falls,  
And I can speak a little then.

XXVIII.

The time draws near the birth of Christ:  
The moon is hid; the night is still;  
The Christmas bells from hill to hill  
Answer each other in the mist.

Four voices of four hamlets round,  
From far and near on mead and moor,  
Swell out and fall as if a door  
Were shut between me and the sound:

Each voice four changes on the wind,  
That now dilate, and now decrease,  
Peace and goodwill, goodwill and peace,  
Peace and goodwill to all mankind.

This year I slept and woke with pain,  
I almost wish'd no more to wake,  
And that my hold on life would break  
Before I heard those bells again;

But they my troubled spirit rule,  
For they controll'd me when a boy;  
They bring me sorrow touch'd with  
joy,

The merry, merry bells of Yule.

XXX.

With trembling fingers did we weave  
The holly round the Christmas hearth;  
A rainy cloud possess'd the earth,  
And sadly fell our Christmas Eve.

At our old pastimes in the hall  
We gambol'd, making vain pretence  
Of gladness, with an awful sense  
Of one mute Shadow watching all.

We paused: the winds were in the  
beech:

We heard them sweep the winter land;  
And in a circle hand-in-hand  
Sat silent, looking each at each.

Then echo-like our voices rang:  
We sung, though every eye was dim,  
A merry song we sang with him  
Last year: impetuously we sang:

We ceased: a gentler feeling crept  
Upon us: surely rest is meet:  
"They rest," we said, "their sleep is  
sweet,"

And silence follow'd, and we wept.

Our voices took a higher range:  
Once more we sang: "They do not die

Nor lose their mortal sympathy,  
Nor change to us, although they change;

"Rapt from the fickle and the frail  
With gather'd power, yet the same,  
Pierces the keen seraphic flame  
From orb to orb, from veil to veil."

Rise, happy morn, rise, holy morn,  
Draw forth the cheerful day from night:  
O Father, touch the east, and light  
The light that shone when Hope was  
born.

The Winter Evening.

"Now stir the fire, and close the  
shutters fast,  
Let fall the curtains, wheel the sofa  
round,

And while the bubbling and loud-  
hissing urn  
Throws up a steamy column, and the  
cups

That cheer but not inebriate wait on  
each,  
So let us welcome peaceful evening in."  
—Cowper.

When you invite your inner circle  
of book friends to spend an evening  
with you, devote one meeting to  
Lowell. Some, perhaps, consider his  
soul-inspiring "Crisis" as one of his  
best, but a profitable evening can be  
spent studying "The Vision of Sir  
Launfal."

A little preparation will make the  
study much pleasanter. For in-  
stance, some member might come  
prepared to refresh the general mem-  
ory with the legend of the "Holy  
Grail." To the one with the sweet-  
est and most gentle voice should be  
allotted the reading of the prelude to  
the first part. If the snow or sleet  
happens to be beating noisily on the  
windows, we will enjoy all the more  
those beautiful lines:

"Ahd what is so fair as a day in June,  
Then, if ever, come perfect days;  
Then heaven tries the earth if it be in  
tune,

And over it softly her warm ear lays.  
Whether we look, or whether we listen,  
We hear life murmur or see it glisten."

Our hearts are sometimes dulled in  
the winter time by the shroud of

death that covers field and forest;  
but we look to the glorious spring-  
time with hope when we read:

"Now is the high-tide of the year,  
And whatever of life hath ebb'd away,  
Comes flooding back with a ripply  
cheer,  
Into every bare inlet and creek and  
bay;  
Now the heart is so full that overfills  
it,  
We are happy now because God wills  
it."

And a little farther:

"'Tis as easy now for the heart to be  
true  
As for grass to be green or skies to be  
blue—  
'Tis the natural way of living."

The rejection by the leper of the  
gold tossed so scornfully to him by  
Sir Launfal, reads a good lesson to  
the rich and proud giver.

Another member should read the  
prelude to the second part.  
Many think because their means  
are small they have not any oppor-  
tunities for service; but let us read:

"He parted in twain his single crust,  
He broke the ice at the streamlet's  
brink,  
And gave the leper to eat and drink.

'Twas a mouldy crust of coarse brown  
bread,

'Twas water drank from a wooden  
bowl,  
Yet with fine wheaten bread was the  
leper fed,  
And 'twas red wine he drank with his  
thirsty soul."

A dozen sermons are in the two  
lines:

"Not what we give, but what we  
share—  
For the gift without the giver is bare."

Many consider this one of the most  
beautiful poems ever written.

JOHN D. MCGREGOR.  
Halton Co., Ont.

The Picture of Saint Cecilia.

The following is very interesting.  
We think, possibly, it refers to an-  
other of the several pictures of St.  
Cecilia. The one which appeared in  
our illustration was reproduced from  
a painting by Naujok.

"In a recent issue there appeared an  
illustration of a painting of St.  
Cecilia, and an account of her his-  
tory. It will perhaps be interesting  
to your many readers to have an  
account of the real lady who is the  
subject of the painting, and so I  
will give a sketch of her as it was  
given me recently.

"The lady is, in reality, Miss Lind-  
ley, the "Beauty of Bath." She  
was such a great musician that  
the court painter, Sir Joshua Rey-  
nolds, who was himself passionately  
fond of music, painted her as St.  
Cecilia at her organ, with the angels  
showering bouquets upon her in ap-  
plause. She had many suitors,  
among whom was Richard Brinsley  
Sheridan, the noted Irish orator and  
wit. He and another man fought  
for her with swords, and Sheridan  
won. He ran off with her and they  
were married. They had two chil-  
dren, Mary and Thomas. This son  
married, and had three daughters—  
tall, graceful girls—who were painted  
as "The Three Graces." They were  
the Countess of Eglington, Hon. Mrs.  
Norton, the poetess, and Lady Duf-  
ferin, the mother of Lord Dufferin,  
formerly Governor-General of Can-  
ada."

A. W. MARSHALL.  
Welland Co., Ont.

The Most Eloquent Logic is Truth.

He who would conceive a philos-  
ophy that will endure must ever  
have regard for the truth. Sophis-  
try may deceive for a time, but not  
all the powers of intellect, nor all  
the ingenuity of logic can avail to  
advance the world permanently along  
the path of error. Whoever would  
immortalize his name by homily or  
epigram, must first align his views  
with the eternal principles of prog-  
ress and truth.



From a painting by F. H. Bragden, Ontario Society of Art.

A New Brunswick Pasture.

Exhibited at St. Louis Exhibitions.

### Our Letter from the Home Land.

#### SOMETHING MORE ABOUT CHRISTMAS.

When one has chosen one's own environment and elected to pass a few quiet winter weeks with no other comradeship than one's own thoughts, or such an interchange of ideas as comes to one through the medium of His Majesty's mails, one has no right to grumble, even if one just occasionally feels a little "out of it," when already, even thus early in December, the very air is astir with the foreshadowings

Of fetivals, and fairs, and plays,  
Of merriment, and mirth, and bonfire blaze,  
Of Christmas mummings, New Year's Day,  
Of Twelfth-night King and Queen, and children's play."

By the time my letter finds its nook in the columns of our Home Magazine, Christmas will probably have come and gone, leaving its benediction in the homes of the dear Dominion, and therefore it is more fitting that my greeting from across the water should rather be, "A Happy New Year to all," than the "Merry Christmas and many of them," which it will be in my heart to say, when, if the weather continues as bright and the air as balmy as we have been having it here for the last week or so, I shall find myself on Christmas Day, in the spirit in Canada, but in the flesh upon one of the benches upon the sea-walk facing my windows in the sunny south coast of the old land.

With you will have been the jingle of the sleigh-bells, bringing to your doors the merry children and the scattered members of your families, the crisp air of a Canadian winter, and the frost-spangles on your way-

### The Quiet Hour.

#### Go Quickly, and Tell His Disciples.

Go quickly, and tell His disciples that He is risen from the dead. . . . And they departed quickly from the sepulchre with fear and great joy, and did run to bring the disciples word.—St. Matt. xxviii: 7, 8.

Perhaps you may think that I have dipped carelessly into my barrel of sermons, and have brought out an Easter sermon by mistake, when you naturally expected New Year's Greeting served fresh and warm, straight from the heart. No, my dear friends, I have not forgotten the season of the year. As for the New Year's Greeting, I gladly reach out a hand in heartiest friendliness, sure that your answering hand-clasp will be warm and cordial. You may not always agree with what I say, but still we are really friends, are we not. We are all servants of the one Great Master, all interested in His business. More and more, as year after year rolls past, I am convinced that fellowship is the chief joy and the chief business of our lives—fellowship with God and man.

But, if you are to enjoy an ever-increasing happiness in the New Year that is now throwing open to you the door of its treasure-chambers, it certainly will not be by gathering up riches for your own use alone. Those who have freely received are bound to give freely of their abundance. This applies to all God's gifts, of course, but, to-day, let us look especially at the great stewardship of spiritual wealth committed to our care. I have been asked to give space to that beautiful poem, "The Starless Crown," which some years ago appeared in our columns, and I gladly do so, as the lesson it teaches is one we continually need. God never lights up a soul for itself alone. If it does not reach out on all sides, as a light should, to lighten the darkness and warm the coldness around it, its own light will soon grow dim, and perhaps die out altogether. The Sun of Righteousness has arisen, bringing light and healing to us, and those

side trees; with me, the dancing waves and the sound of their splashing upon the shore, but with a temperature resembling a bright autumn or even spring day in the Dominion.

Nor are these the only contrasts which strike the Canadian visitor to England. The daily paper brings before its readers plea after plea for cases which could hardly have an existence in Canada, but which occur and reoccur in the crowded motherland winter after winter. To-day's issue (1st December) pleads for help, through a special mission in East London, established to look after its empty homes and hungry children, where there is acute suffering amongst the unemployed, where strong men are falling out of condition and losing all labor capacity, nursing mothers fainting from starvation, little children hungry, and homes growing emptier every day." Another says: "Cast-off toys are asked for from happier children, as the only chance of beguiling Santa Claus into a visit to the little ones in these homes of poverty; the sight of those turned away last year because the contributed toys were so entirely insufficient was pathetic and heartrending. We want tons of toys, please send us some."

Next comes the "Little Cripples' Christmas Fund, for sending a Christmas hamper to every one of the 7,000 crippled children in the metropolis." His Majesty the King heading the subscription list. The Church Army is overwhelmed by the thousands imploring it for help by piecemeal only. It has 100 labor-relief centers, labor homes, through which it strives to save the respectable unemployed from utter despair by procuring work for them or by making emigration to Canada possible for them, 3,000 selected applicants having, through its efforts, been sent out during this year alone. Mr. Bramwell Booth, of the Salvation Army, asks for contributions up-

on the same lines. "We can," he says, "for £10 each, personally conduct to Canada 20,000 carefully-chosen emigrants, if only the benevolent will send us the means to do so," etc. And thus is Canada linked onto the great work of relief which is going on in the Old Country, not only at Christmas, but all the year round, experience having taught wisdom as to ways and means, and the more careful selection of people likely to make good settlers. For these dark clouds in the old land Canada provides the silver lining; so, even to this dismal tale of poverty there is a brighter side.

To the question, "Are Christmas-trees dying out?" the answer seems, in this year of grace, 1906, to be emphatically "No." Royalty holds onto its Christmas-tree, perhaps because it was Victoria the Good who practically introduced it to England just sixty years ago, on the Christmas eve of 1846. Every year subsequently of her long and glorious reign, wherever the Court was, there was the tree, upon which every gift was personally chosen by the Queen herself; and then, who does not remember, in the dark, closing days of 1899, the splendid tree provided by Her Majesty for the wives and children of men in the Brigade of Guards and Reservists serving in South Africa? Thus, Christmas, in its widest meaning of love and kindly thought for all, finds still its sweetest expression in the Christmas-tree as one of its most significant symbols.

It seems quite a new departure to hear of preparations for Christmas festivities at a fashionable London hotel, but, realizing that many parents from other lands make it a common meeting-ground for the holidays with their children from overseas, the managers of the Carlton, by a happy inspiration, have devised a party for children, of which

a magnificent tree shall be the center, and no pains will be spared in carrying out the details, with the delightful aftermath of the overplus of the toys being given to those other little ones upon whom the holy season will dawn as they lie upon their beds of pain in meager homes or hospital wards. The programme for this unique festivity is thus outlined:

"It is intended to effect a complete transformation of the Palm Court and Winter Garden, removing all the flowers and towering foliage plants, rugs, lounges, and all else. In their stead will be small pines, frosted and glistening, while a thick, soft, white, mossy covering upon the marble floor will faithfully represent the snow upon the ground. In the window boxes of the overlooking balcony there will be trim little holly bushes and Christmas roses, with sparkling hoarfrost and long, gleaming icicles. Dominating everything, there will be in the center a perfectly proportioned pine, reaching from the floor to the roof, and lighted with some of the latest novelties of effect known to the expert electrician, while it will be loaded—literally loaded—with toys representative of the oldest favorites of the nursery, and of the newest developments in mechanical and moving playthings. To add to the wintry effect of this wintry forest glade out of the kingdom of Santa Claus, there are to be gently-falling flakes of cunningly-simulated snow."

I suppose I should apologize for all this chatter about Christmas so many days after your own festivities are over. Please just treat my letter as a kind of postscript, and remember that, however late it may be in reaching you, it was written quite early in December, and has had to bide its time before finding itself in "The Farmer's Advocate."

H. A. R.

who feel the glow and see the light are bound to "go quickly, and tell His disciples." The command is really a gracious permission, for it fits our desire so exactly. To keep one's religion to one's self is a very unnatural thing. If we care about anything we naturally want to make others care about it too. And to spread the light is the surest way to gain more light for our own souls. "The liberal soul shall be made fat; and he that watereth shall be watered also himself," is a proverb which has been tested and proved by the experience of ages. Every farmer knows that the only way to increase his stock of grain is to sow it in suitable soil, and every business man knows that the miser's plan of hoarding instead of circulating his gold is a very poor way of increasing it. And this is just as true in regard to the spiritual wealth which God has poured so lavishly into our hands. Unless we are constantly giving out, we shall infallibly lose what once was ours, besides failing to renew our supply. An earnest Sunday-school teacher gains a great deal through patiently preparing the lessons week after week and year after year. Then, there are also the practical lessons of faith, courage, hope, endurance and love, which can only come through experience. If you are really trying to pass on the glad tidings of great joy, you will constantly be on the watch for fresh ideas and new ways of presenting old truths; and in trying to strengthen the faith of others your own faith will unconsciously grow stronger. If you want to renew the freshness of youth, and find the joy of living increase instead of diminishing as the years pass swiftly into eternity, then pass on the good news eagerly—the good news that God is living and working in His world, working in and through His children, for their eternal good and happiness. And this gospel can only be passed on by you, if others can see reflected in your life the image of the loving Son of God. I am continually hearing people say: "I don't believe in going to church because so many church-goers care only for their own salvation." Don't let that reproach rest on you, or rest on the cause of Christ through your fault. Imperfect though your life may

be, yet if its mainspring be unselfish love it will not undermine your attempts to draw others nearer to God, as a selfish life invariably does. It has been said that "the Glory of life is found in unselfish consecration to the welfare of mankind. Greed has its charms and its delusions, but when laid bare, how base and foul and repulsive it is found. None so poor to do it reverence."

In our prayers and hymns especially we should aim more at giving than at getting. The very first words of the model prayer teach us that we are near of kin—children of one Father—and that the needs of our brothers and sisters should always interest us deeply. But how often do we pray and sing as though we only cared for our own needs. Will you begin this New Year by consecrating yourself afresh to God's service? Then He can reach out through you to help the world. If we try to keep our secret thoughts pure and clear, then the Light of the world can shine through our lives and attract hungry souls by His peerless beauty. H. S. Holland asks: "What light is going out from you, now and every day, to those who have not the joy of your secret? What radiance can they see about you? What good cheer do you bring? Is there any one dark soul that brightens at your coming—and brightens, not with your own light, but with that light which you hold in you from Him Who alone is the Light of the world. His light it must be. Is there anyone to whom that light passes, through your ministry?" "Ye are the salt of the world. . . . Ask yourself—is there any society into which Christ's purity finds its way opened through you—a society which, without your presence, would begin to stink and putrefy? Is there any corner of the earth, however tiny and obscure, which you serve to keep clean for Christ? . . . You are salt—that by which mankind is kept sweet and clean and fresh. Christ counts on you for this. This is your high calling; very high it is! But salt that has lost its savour is good for nothing. . . . The Church is a light-bearer and a purifier—are we fulfilling our mission? Christ has washed our feet, are we washing the feet of our fellows?"

If we really care for our Lord, we must try to draw others to His feet, we can hardly fail to run quickly with the glad tidings that He is alive and close at hand. HOPE.

### The Starless Crown.

"They that turn many to righteousness shall shine as the stars forever and ever."—Dan. 12: 3.

Wearied and worn with earthly cares, I yielded to repose,  
And soon before my raptured sight a glorious vision rose:  
I thought, while slumbering on my couch in midnight's solemn gloom,  
I heard an angel's silvery voice, and radiance filled my room.

A gentle touch awakened me, a gentle whisper said,  
"Arise, O sleeper, follow me"; and through the air we fled.  
We left the earth so far away that like a speck it seemed,  
And heavenly glory, calm and pure, across our pathway streamed.

Still on we went; my soul was rapt in silent ecstasy:  
I wondered what the end should be, what next should meet my eye.  
I know not how we journeyed through the pathless fields of light,  
When suddenly a change was wrought, and I was clothed in white.  
We stood before a city's walls most glorious to behold;

We passed through gates of glistening pearl o'er streets of purest gold;  
It needed not the sun by day, the silver moon by night;  
The glory of the Lord was there, the Lamb himself its light.

Bright angels paced the shining floor,  
Sweet music filled the air,  
And white-robed saints with glittering crowns from every clime were there;  
And some that I had loved on earth stood with them round the throne,  
"All worthy 's the Lamb," they sang,  
"Be with us His alone."

But fairer far than all besides I saw my Saviour's face;  
 And as I gazed He smiled on me with wondrous love and grace.  
 Lowly I bowed before His throne, o'erjoyed that I at last  
 Had gained the object of my hopes; that earth at length was past.  
 And then in solemn tones He said, "Where is the diadem  
 That ought to sparkle on thy brow—adorned with many a gem?  
 I know thou hast believed on Me, and life through Me is thine;

But where are all those radiant stars that in thy crown should shine?  
 Yonder thou seest a glorious throng, and stars on every brow;  
 For every soul they led to Me they wear a jewel now.  
 And such thy bright reward had been, if such had been thy deed,  
 If thou hadst sought some wandering feet in paths of peace to lead.  
 Thou wert not called that thou shouldst tread the way of life alone,  
 But that the clear and shining light which round thy footsteps shone,

Should guide some other weary feet to My bright home of rest,  
 And thus, in blessing those around, thou thyself hadst been blest."  
 \* \* \* \* \*  
 The vision faded from my sight, the voice no longer spake,  
 A spell seemed brooding o'er my soul which long I feared to break;  
 And when at last I gazed around in morning's glimmering light,  
 My spirit felt o'erwhelmed beneath that vision's awful might.  
 I arose and wept with chastened joy that yet I dwelt below,

That yet another hour was mine my faith by works to show;  
 That yet some sinner I might tell of Jesus' dying love,  
 And help to lead some weary soul to seek a home above.  
 And now, while on the earth I stay, my motto this shall be,  
 "To live no longer to myself, but Him who died for me."  
 And graven on my inmost soul I'll wear this truth divine,  
 "They that turn many to the Lord bright as the stars shall shine."  
 —Printed by request.

Children's Corner.



Another Pet of the Family.  
 (Sent by Pearl Williams.)

The Christmas Gift.

In the sunny land of France there lived, many years ago, a sweet, sunny little maid named Piccola.  
 Piccola's father had died when she was a baby, and her mother was very poor, and had to work hard all day in the fields for a few cents. Little Piccola had no dolls and toys, and she was often hungry and cold, but she never was sad or lonely.  
 What if there were no children for her to play with! What if she did not have fine clothes and beautiful toys! In summer, there were always the birds in the forest, and the flowers in the fields and meadows; the birds sang so sweetly, and the flowers were so bright and pretty!  
 In the winter, when the ground was covered with snow, Piccola helped her mother, and knit long stockings of blue wool. The snowbirds had to be fed with crumbs, if she could find any; and then there was Christmas Day.  
 But one year her mother was ill, and could not earn any money. Piccola worked hard all the day long, and sold the stockings which she knit, even when her own little bare feet were blue with the cold.  
 As Christmas Day drew near, she said to her mother: "I wonder what the good Saint Nicholas will bring me this year. I cannot hang my stocking in the fireplace, but I shall put my wooden shoe on the hearth for him. He will not forget me. I am sure."  
 "Do not think of it this year, my dear child," replied her mother. "We must be glad if we have bread enough to eat."  
 But Piccola could not believe that the good Saint would forget her. On Christmas Eve, she put her little wooden shoe on the hearth, and went to sleep to dream of Saint Nicholas.  
 As the poor mother looked at the little shoe, she thought how unhappy her dear child would be to find it empty in the morning, and wished that she had something, even if it were only a tiny cake, for a Christmas gift. There was no money in the house but a few cents, and these must be saved to buy bread.  
 When the morning dawned, Piccola awoke and ran to her shoe.  
 Saint Nicholas had come in the night. He had not forgotten the little child who had thought of him with such faith. See what he had brought her! It lay in the wooden shoe, looking up at her with its two bright eyes, and chirping contentedly as she stroked its soft feathers.  
 A little song sparrow, cold and hungry,

had flown into the chimney and down to the room, and had hopped into the shoe.  
 Piccola danced for joy, and clasped the shivering sparrow to her breast. She ran to her mother's bedside. "Look, look!" she cried. "A Christmas gift, a gift from the good Saint Nicholas!" And she danced again on her little bare feet.  
 Then she fed and warmed the bird, and cared for it tenderly all winter long. She taught it to take crumbs from her hand and her lips, and to sit on her shoulder while she was working.  
 In spring, she opened the window for it to fly away; but it made a nest in the woods near by, and came often in the early morning to sing its sweetest songs near the door.  
 (Copied by) JANET McNABB (age 12).  
 Ottawa, Ont.

The Letter Box.

Dear Cousin Dorothy,—I read the letters in the Children's Corner every week, and enjoy it very much. We have taken "The Farmer's Advocate" five years, and think it is a very good paper. I live on a farm of over one hundred and fifty acres. I go to school, and am in the Fourth Class. We have an incubator and raised over two hundred chickens this year. We have twenty-nine cows, three bay horses, three sorrel colts, and one pony which I ride, and a little pony colt, which I am sending the picture of. I am practicing for a Christmas entertainment now that we are going to have on the twenty-first of December. This being the first letter I have ever written to you, I hope to see it in print.  
 E. PEARL WILLIAMS.  
 Ostrander, Ont.

Cousin Dorothy,—I have been very interested in reading all the letters in the Children's Corner, and I thought I would like to write to you. I go to school, and I am in Senior Fourth Class. We have a library in our school, which I enjoy very much. I spent my vacation very pleasantly. I shall be glad when winter comes, so I can skate and go coasting. I am ten years old. It is a nice time of the year to paint. We paint at our school. In the spring, we paint Mayflowers, and in the autumn we paint leaves, for they are so pretty. I am reading "The Flower of the Family." It is one of the Pansy series. I would like some little girl to write to me. I think it is time to close. Wishing your paper every success.  
 HELENA MALE.  
 Addison.

Dear Cousin Dorothy,—This is the first time I have written to your paper. I like to read the Children's Corner. We have taken "The Farmer's Advocate" for more than four years, and think it is a good farm paper. I have a pony; her name is Nancy; and a colt; her name is Stella. She is red, and very pretty. We have 23 cows, 11 horses, 40 hogs, 35 sheep and lambs. I have a Shorthorn cow. She took first prize at our county fair. She is a dandy; her name is Fancy. I think I will leave room for someone else. Wishing "The Farmer's Advocate" every success.  
 SARAH C. McALPINE (age 12).  
 McAlpine P. O., Ont.

Dear Cousin Dorothy,—I am going to write to the Children's Corner: it is the first letter I have written. My father has taken "The Farmer's Advocate" for

Winnabel, and one little brother, Willie. Our cat is named Jerry, and our dog, Togo. We are talking of going to Alberta to live in the spring.  
 BEATRICE BROWN (age 9).  
 Elgin, Ont.

Dear Cousin Dorothy,—My father has taken "The Farmer's Advocate" for a number of years, but I have never before written to the Children's Corner. I go to school every day that I can, and am in the Fifth Class. My favorite subject is Geography. Like a great many of the other members, I am fond of reading, and have read quite a number of books. My father owns three hundred acres of land. I am sure Dorothy Bull must be happy with so many pets. I close, wishing "The Farmer's Advocate" every success.  
 EDNA V. ROBINSON (age 12).  
 West McGillivray, Ont.

Dear Cousin Dorothy,—My father has been taking "The Farmer's Advocate" for a number of years. We live on a farm of 50 acres. We have horses, pigs, cattle, hens and two little calves. This is my first letter to the Children's Corner. Wishing you and the readers every success.  
 NOREEN QUINLAN (age 9).  
 Newcastle, Ont.

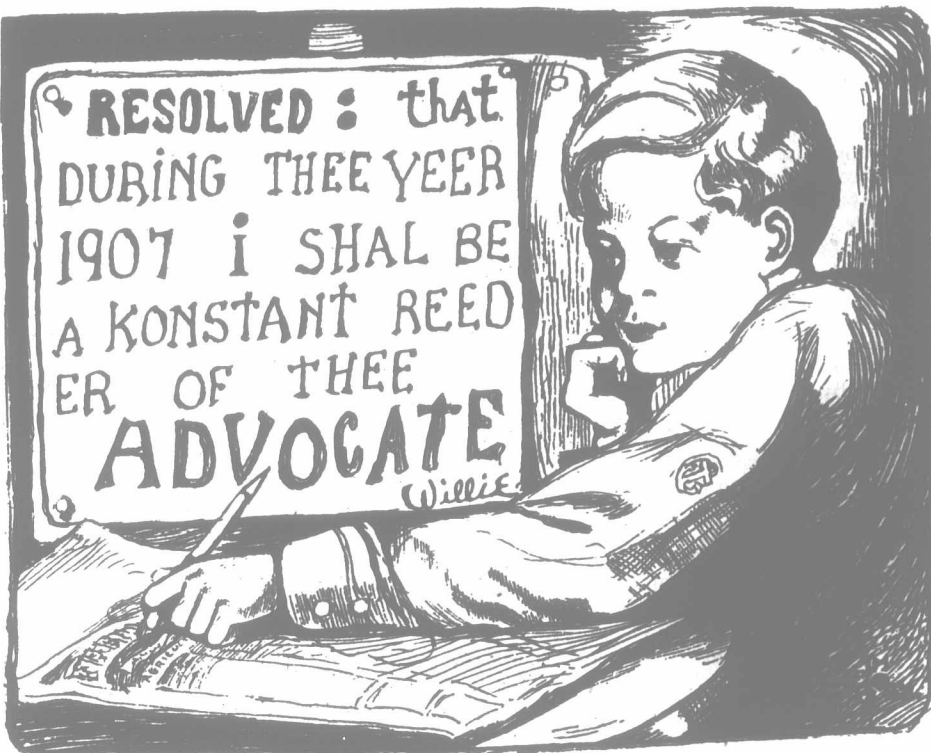
Something to Think About.

Dear Cousin Dorothy,—In reading the letters in our Children's Corner, this thought came to me: Why not try to write on some interesting subject, some topic of the day, instead of telling how many dogs, cats, sheep, pigs, etc., our fathers own. I think every letter written to "The Farmer's Advocate" should benefit both writer and readers. Why not some of our children give their ideas on phonetic spelling, or some other popular subject discussed in our schools and newspapers at the present day? Would like to hear the opinion of other members of this Corner.  
 I enjoy your fairy stories very much.  
 EULALIE JEFFS (age 13).  
 Bond Head, Ont.

I am printing this letter out of its turn, because I think the older cousins might write much better letters than they do. When the pile of letters still on hand is all used up, we might try some kind of debate. As for the little tots, letter-writing is such hard work that we must let them tell us about the farm stock if they like.  
 C. D.

A Costly Comma.

A number of years ago, when the United States, by its Congress, was making a tariff bill, one of the sections enumerated what articles should be free of duty. Among the many articles specified were "all foreign fruit-plants," etc., meaning plants imported for transplanting, propagation or experiment. The enrolling clerk, in copying the bill, accidentally changed the hyphen in the compound word "fruit-plants" to a comma, making it read, "all foreign fruit, plants," etc. As a result of this simple mistake, for a year, or until Congress could remedy the blunder, all the oranges, lemons, bananas, grapes and other foreign fruits were admitted free of duty. This little mistake, which anyone would be liable to make, yet could have avoided by carefulness, cost the Government not less than \$2,000,000. A pretty costly comma that.



Drawn for "The Farmer's Advocate" by our young artist, Jas. Frise.

Dear Cousin Dorothy,—As this is my second letter to your corner, I will try not to take up too much space. However, I hope that what I do write will not be overlooked, as I wish to make a request.  
 Would any of the Cornerites, fourteen or over, like to correspond with me? I would be delighted to have some new correspondents. If you will write to me, I will answer all letters. Hoping my request will be granted, I remain a loyal Cornerite.  
 ESTELLA McCUTCHEON (age 14).  
 Croton P. O., Ont.

several years. I read the letters, when we get "The Farmer's Advocate." I go to school, and I like going very well. There are a lot at school. I am in the Second Reader. I am nine years old. Hoping to see this in print soon, and wishing "The Farmer's Advocate" every success.  
 BERTHA FRETTER.

Dear Cousin Dorothy,—This is the first time I have written to "The Farmer's Advocate." We have taken it about four years. We live on a farm, and have 12 cows, and 4 horses—Dobbin, Don, Sylvia and Silver. I have one sister,



## About the House.

### The 20th-Century Servant.

A servant who is always on time, always does exactly what is expected, never fails in the performance of duties, is never sick, lazy or impatient, and asks neither food nor remuneration! It sounds like a fairy story, quite "to good to be true." And yet this is exactly the servant which has been installed in a modern New York house, and is within the reach of many of our own homes. This house has been fitted with every imaginable electrical device for doing the work of the household, and represents the complete mastery of electricity for domestic purposes. Heating, lighting and cooking are all done by electricity, and there are, in addition, innumerable lesser conveniences, such as a motor to run the sewing machine, and an electrically-heated iron in the sewing-room; a small electric table in the dining-room wired for chafing-dish or teakettle; and even in the den and on the veranda are electric lighters, putting matches entirely out of commission, and an electric curling-tongs is a delight for the feminine portion of the household, and of course telephones go without saying.

As regards the expense of installing, the owner tells us: "Owing to past experience with electrical devices in the kitchen, I requested a Boston architect to draw up two plans, plan No. 1 to be without a kitchen chimney, to have no kitchen coal bins, and a cellar under part of the house only. That part under which there was no cellar was, of course, well ventilated. The foundation for the front part of the house was to go down only to the frost line. Plan No. 2 included a cellar under the entire house, a kitchen chimney, kitchen coal bin and cement cellar floor. The two plans were submitted to contractors, and I found, upon securing bids, that by adopting plan No. 1 I could save more than enough money to pay for the extra wiring throughout the house and buy a complete line of attractive electrical cooking, baking and ironing devices, radiators, chafing dish, and other miscellaneous electrical articles. It is needless to say that I adopted plan No. 1."

The kitchen has neither coal nor gas range, and the cooking outfit consists of a wooden table about four feet long, equipped with seven regulating switches for turning the current off and on, and four of these switches have three heats—maximum, medium and minimum. Some of the cooking utensils are combination affairs, capable of being used for two or three purposes at the same time, thus lessening both the cost and time of cooking and the amount of "cleaning-up" to be done afterwards. In the bathroom, an electric shaving-mug furnishes hot water for shaving in less than one minute, and in winter two cents' worth of electricity makes the room warm and comfortable in an incredibly short time.

Think of the convenience of touching a button beside one's bed in the morning to start the breakfast preparations, and then, after dressing comfortably, to go down stairs to find the kettle singing merrily, the porridge—left ready the night before—steaming away in the cereal boiler, and the oven at just the right heat to bake the biscuits. Mr. Hillman says: "In our many years' experience with other systems for cooking and baking, we have not found any so quick and convenient as the electric."

Think of the saving in work in having no stoves or furnaces to attend to, no wood to chop, no coal to carry, no ashes to dispose of, no lamps to keep cleaned and filled! Doesn't this sound like the acme of luxury? And this need not be dismissed as an idle dream, but is an entirely feasible and practical idea, and one which will undoubtedly come

into much more general use when once its feasibility is understood.

In houses near cities or within reach of a public power-house, or in Ontario—along any of the lines of the new Niagara power system, connection with the general electric system would be a simple matter. In more remote districts a private dynamo would be required, but that could be installed and run by a gasoline engine, and where there is already one of these in use on the farm, it should not be a difficult affair to utilize it for the dynamo also.

As regards the cost, a close and careful comparison between the expense of electricity and that of other means of heating and lighting, shows the former to be only ten per cent. greater than that of other methods. Mr. Hillman's average monthly bill being \$6.69 for electricity, as against a former average of \$6.00 for coal and gas, with an additional charge for carting away ashes. While the figures given are from New York State, and the price of electricity varies with different localities, it is probable that the proportions would remain about the same, and that one could make a rough estimate of the cost from those given.

The electric cooking utensils and outfit are, at first cost, cheaper than that required for coal or gas. Whereas a good range alone will cost anywhere from \$50 up, the entire electrical outfit, including electric oven, stove, table with regulating and controlling switches, broiler, frying pan, etc., can be purchased for the same amount. The extra expense for electricity seems, then, to lie in the initial cost of wiring, which would not be a very serious matter if planned for in building a new house. For anyone intending to build, this idea is surely worthy of consideration. "Those people who have electric lights in their homes will want to try some of the smaller and attractive articles, many of which can be placed on regular lighting sockets; and those whose homes are not wired for electric lights will appreciate how much more convenient their homes may be made by the use of these electrical devices, with their low initial and small operating cost.

### KILOWATT.

### The Ideal Kitchen.

Whatever be the reason of it, the fact remains that ill-health is at the present time more common than in the good old days of log-house and corduroy. It is not likely that the generation of to-day would, were it possible, or practicable, or even a solution of the problem how to keep well, return to the log-house and corduroy. Human nature is weak. It clings to luxurious temperatures and easy travelling, and shudders at discomforts taken as a matter of course by our progenitors of half a century ago. We would have our cake and eat it too; and the only way of doing so seems to be to do away, as far as possible, with the causes that lead to the distempers of the day.

One of the best means of doing this is to lessen the possibility of germ activity. True, the germ-hunting proclivities of the present century have been laughed at. Over and over again it has been pointed out that our grandparents, who knew nothing and cared less about germs, were healthier than we; yet over and over again may we reply that it was not necessary for those grandparents of ours to care so much, because in their day conditions were less favorable to germ production than in ours. Wherever pure air and sunshine reign, bacteria do not flourish readily. The man or woman who lives much in the open air, warmly clad, and fortified by health-giving exercise, can laugh at them. The primitive house, filled with pure air, even though by reason of its chinks and crannies, does not offer them tempting quarters. Hence it is that so often the poor in little open houses in the country escape colds,

and are marvellously free from diseases of all kinds. Hence it was, too, that in the whole history of San Francisco there was never known to be so little illness as during last summer, when practically the whole population lived in tents, subject to all the "discomforts" of such a mode of living.

Since, however, the severely simple life does not appeal to many people, a great alternative is to keep ever vigilantly on guard against germs. That a house should be well ventilated from garret to cellar, goes without saying. That bedroom windows should be open at night, even though the bed be burdened almost with blankets and it be necessary to wear a nightcap, goes also without saying. That cellars and store-room should be scrupulously clean, nowhere harboring a vestige of decaying vegetable or other matter, is, in these days of good house-keeping, a foregone conclusion. That, however, bacteria may lurk even in places apparently clean, is not to all minds so patent; yet everyone knows that no surgeon will use an instrument which has simply been washed; it must also be sterilized. Bacteria, it must be remembered, even when congregated in millions are never visible to the naked eye.

It is, of course, impracticable to sterilize, say, the rooms of a house, yet much may be done to prevent germ-development; and in no room in the house, perhaps, is this precaution more necessary than in the kitchen. It is there that the meals are cooked; it is there that the mistress of the home must needs spend a great deal of her time; moreover, it is there that steam and fumes must ascend and circulate at their own sweet will, clinging, often, about cracks and crevices with a moisture most enticing to the ever-ready bacteria.

There are kitchens, however, whose appointments are so perfect that the bacterium must, in them, meet its Waterloo. Perhaps they are not so romantic as the old, beamed, pumpkin-hung kitchens of which we like to read. At first they may appear rather like a drug store or a store-room in a hospital. Even though we admire them, they may seem to us, at first sight, a little beyond our means. Yet, it is well to keep an ideal ahead towards which we may work by little and little.

In the first place, the very most ideal kitchen has a white-tiled floor, clean, hard, without even a pore to absorb dirt or a single soft bit of surface to wear off into dust. If the floor proves too slippery, there are rubber or fibre mats placed wherever one must walk most. Failing the tilework, a close, well-made hardwood floor, or a covering of stout linoleum, is the best substitute. In this ideal kitchen, again, there is a hood over the stove to carry off vapors, and the walls are covered with sanitas. The last looks well, but is really no better than a hard-finished, painted surface.

There are no decorations in this kitchen save, perhaps, a picture or two, and the few cushions necessary to comfortable chairs; decorations, especially textile ones, only hold dust and make work. Instead, there is across one side a wall cupboard, which, by reason of curves wherever horizontal and vertical surfaces meet, is very easy to clean. It has glass doors, and in it are ranged glass jars and bottles containing everything the good fairy of the kitchen may need. Below it is a table kitchen cabinet, with compartments below for flour, etc. A zinc covering for the table part saves much extra scouring.

Needless to say, the range stands near, with the oven door in the handiest possible proximity to the baking cabinet. The sink is also placed where it may be reached conveniently, and all its edges and joining points are rounded to facilitate cleaning. At one end of it there is a spacious dripping-board, under which a rubber mat or a cloth may be laid when the dishes are placed

thereon to drain—a precaution calculated to save many breakages. Of course, if the kitchen is perfect it will contain a refrigerator, but on most farms a cool cellar is made take the place of it.

Now, perhaps it is too much to expect to have all these things at once. Yet, if one is "building," it is as easy to have curves instead of angles as not; and it costs no more to have a cupboard built into the wall than to buy a new separate one. Besides, there is the saving of labor to be considered. The wall cupboard has no cramped, open space beneath, so awkward to clean out conveniently. As for the jars and bottles, they may be collected like the animals of the old song that went into the ark, "one by one," and "two by two." Sealers of all sizes will be found to do beautifully, and will not be readily abandoned by the really particular housekeeper who likes to see her groceries kept away from dampness and odors.

### Different Ways of Serving Potatoes.

**Cream Potatoes.**—Eight medium-sized, cold boiled potatoes, cut in dice. Make 1½ pints of thin, white sauce (made with milk slightly thickened with flour); add 1 tablespoon finely-chopped onion to the potatoes, season, turn the white sauce over all, let boil up once and serve.

**Potato Waffles.**—Sift one cup flour and 1 teaspoon each of baking powder and salt together. Add 1 cup mashed potatoes, 1 teaspoon melted butter and 1 teaspoon sugar. Beat an egg; add to it 1½ cups milk. Stir, and add to the rest. Bake in well-greased, heated waffle irons.

**Potato on the Half Shell.**—Bake some well-shaped potatoes till tender. Cut in two lengthwise and scoop out the pulp. Press through a ricer, and to every 2 cups add 3 tablespoons butter or cream, ½ teaspoon salt and the yolks of 3 eggs well beaten. Add the stiffly-beaten whites of 2 eggs and heap back into the potato shells, rounding off with a knife dipped in hot water. Brush over with the white of the third egg slightly beaten, and bake until browned.

**Irish Potato Pie.**—Season mashed potato with onion, pepper and salt. Put a layer of this in a pie-dish, then a layer of thin slices of cold meat. Then put on another layer of potato, then meat, and so on till the dish is full, having potato on top. Brush over with butter and bake until brown. If the meat be dry, dip each piece into thick gravy before putting in the pie.

**Potato Mince Balls.**—Chop ham very fine; add to it mashed potatoes well seasoned, and the yolk of an egg beaten. Form into balls and fry in hot butter.

**Scalloped Potatoes.**—Cut baked or boiled potatoes into squares, add milk slightly thickened, as for white sauce, and bake until a delicate brown over the top. If desired, grate cheese over the top before baking.

**Potatoes and Bacon.**—Prepare creamed potatoes the usual way, by cutting in cubes and warming in milk sauce. When they have simmered about five minutes, add some bacon which has been cut in tiny cubes and fried until nearly brown. They should be well drained before they are put with the potatoes.

**Potatoes and Cheese.**—Boil 6 or 8 potatoes until mealy. Mash smooth and add a couple of tablespoons of butter, salt and pepper, and enough hot milk to make them quite soft. Grate a half cupful of cheese and beat it into the mashed potatoes. Grate a thin layer of cheese over the top, set in the oven until the cheese toasts and serve.

Another way: Cut boiled potatoes in rather large bits, as for frying, and arrange in a bake dish. Grate cheese over each layer of potatoes, top with a cream dressing over all, grate a layer of cheese on top, and

**Potatoes and Cheese.**—Pare the po-

tatoes, shave very thin, and soak 1 hour in cold, salted water; then drain in a colander and spread on a dry towel. Fry a few at a time in very hot fat, one minute being usually long enough to brown them sufficiently. Drain on brown paper, sprinkle slightly with salt, and when needed for the table heat quickly in the oven. These will keep a week or ten days if put in a cool, dry place.

#### HOUSEHOLD HINTS.

**To Keep Spare Ribs.**—Cut up and fry, pack in a jar, and cover with melted lard. They will keep sweet until May, and the lard may be tried out afterwards and used. Sausages may be kept in the same way.

When boiling beans, if a quart of cold water is poured into the kettle just before straining, the beans will immediately sink to the bottom, and the water can be readily poured off without spilling the beans.

When administering nauseous physic to children, give them first a peppermint lozenge or a bit of alum.

Carrots boiled till tender in salted water, drained and mashed, make a very good substitute for pumpkin for pies. Treat exactly as you would the pumpkin.

**To Prevent Chilblains.**—Soak the feet and hands twice a week in hot water that has common salt dissolved in it, in the proportion of half-a-pint measure of salt to one gallon of water.

If it is desired to keep cakes moist, put them in a stone jar.

White felt hats and white furs may be cleaned by rubbing well with hot corn meal or hot bran.

## Current Events.

Holman Hunt, the famous English artist, is going blind.

China is opening four towns, Hang-Chun, Kirin, Harbin and Manchuri, as places of international residence and trade.

The House of Lords, of Great Britain, has killed the Education Bill by insisting on retaining their amendments.

The Czar has approved of a bill brought up by the Council of Ministers guaranteeing greater liberty and privileges to the Jews in Russia.

Dr. Jones, U. S. Consul at Dalny, has reported that the Japanese are fostering a scheme to colonize Manchuria and cultivate it to a degree which will enable it to supply Asia with wheat and cotton.

A new shipping company has been formed in Japan. It will establish services to Formosa, Java, Vladivostok, North China, Hong Kong, Manila, Hawaii, America, the South Seas and India.

Considerable rioting has occurred in different parts of France in connection with the evacuation of various seminaries and episcopal palaces. The Government has ordered prosecutions for holding religious services discontinued for the present.

#### Recipes.

**Wiggs.**—Beat 1/2 pint warm milk and 1 lb. "Five Roses" flour to a batter, and add 3 spoons yeast. Set by the fire to rise, and, when light, work in 1/2 lb. sugar and 1/2 lb. butter. Make into cakes with as little flour as possible, and a few caraway seeds. Bake in a quick oven.

**Breakfast Cake.**—Two cups Indian meal, 2 cups "Five Roses" flour, 2 cups buttermilk, 4 tablespoons molasses, 2 teaspoons soda. Eat hot, with butter.

## Health in the Home

### Treatment of Colds and Pneumonia.

Of all the seasons of the year, the winter is perhaps the only one looked forward to by mothers with dread and even fear. This is due mostly to the frequency of colds among the children, and what is worse, that fatal disease, pneumonia. These two diseases, if one may call a cold a disease, seem to go hand in hand, as the former is often the forerunner of the latter. The question then naturally arises: Can colds, in any way, be guarded against or broken up? In answer to this, I firmly believe that the timely exercise of a little care and foresight should prevent all danger from colds, and make the winter a season of exhilaration and health.

How, then, to go about this. The winter is a time of sudden changes in temperature; thus the first precaution is to so clothe the children that their bodies will not be exposed to these changes. At the first indication of cold weather, the child should be made to wear all-wool underwear. This does not mean he should be all bundled up to the ears in heavy garments, thick as boards, which do not protect him from the cold, but simply serve as a dead weight on his body. The thickness of flannel is not always a test of warmth. Get soft, light-weight garments, which keep in the heat of the body and do not take all its energy to carry them around. Mothers often complain that their flannels shrink in the washing, and thus get hard and heavy. This will not happen if they are properly washed. Soak the flannels in cold or lukewarm soap suds any convenient length of time. They may even stand over night, providing the soap used is not too strong ("Wool" soap is good). When ready to wash, rub them lightly, rinse in warm water (never use hot water), and hang up to dry in a sunny place, or before the fire. Flannel should always be dried quickly to keep its softness. Sometimes the children say they cannot wear all-wool because it irritates their skin, and they must needs be constantly scratching. If this is the case, the trouble may easily be overcome by letting them wear thin gauze vests underneath their shirts.

Having the body once protected against the cold, the other dangers can easily be prevented. See that the children keep their feet dry; boys especially are more apt to tramp through the biggest snowdrifts rather than on the beaten path. This will not hurt them, provided they have warm overshoes and leggings. Rubbers in winter are more harm than good, as they draw out the heat from the feet, and keep them cold. Their necessity comes in the spring, in damp, slushy weather. When there are several children in one family, the buying of overshoes and leggings may seem quite an expense; but it will be money well spent in the comfort and health of the young people, and possibly in the saving of doctors' bills. Sleeping in drafts should be guarded against. Do not think that fresh air is not necessary in the bedrooms. That is the one essential to all health. Air the rooms well during the day, also the bed clothes. If it is not too cold, keep the window open at night—a little at the top and bottom is better, as it provides a circuit for the foul air to go out at the top, and the fresh air to come in from the bottom.

Avoid overheating. Colds are more frequently taken in hot, air-tight rooms than any other way. The carbonic-acid gas exhaled from the body in breathing is reabsorbed instead of the oxygen, which is found only in fresh air. Thus the system gets clogged up with its own poisons; circulation is depressed, and a cold usually results.

If the child should happen to get a severe cold, it may sometimes be relieved or broken up when taken in time. Give him a hot bath at night, followed by a drink of lemonade, ginger-tea, or even water, if the others are not handy. This will make him perspire, and in this way the skin aids in the excretion of poisons. Be very careful, however, not to let the child get chilled by throwing off the bed clothes, or jumping out of bed, or his cold will be made worse instead of better.

A dose of oil should also be given; castor oil is always good to keep the bowels open so they, too, can do their part in excreting the poison. If a bad cough accompanies the cold, the tickling in the throat may often be relieved by taking a teaspoonful of glycerine in cream. A simple but effective cough syrup can be made by mixing together the following: One-half glass of cream, one dessertspoon of brandy, one teaspoon of honey (strained or in the comb), two drops of wintergreen. One teaspoonful given every two or three hours will do much towards healing the rawness in the lungs.

It is at this stage, when the throat, bronchial tubes and lungs of the child are inflamed and sore, that the cold may result in pneumonia in spite of all care. Medical science tells us that this disease is due to a variety of bacteria which invades the lungs, grows rapidly, and generates a poison or toxin, which is absorbed into the blood, causing fever. Pneumonia is not by any means confined to children, although it is more common to them than adults. The death-rate, however, is not so great in the young, as persons of more mature years. But it is great enough to be regarded as one of the most widespread and fatal of all children's diseases.

There are certain symptoms which seem peculiar to pneumonia. If these are noticed, a physician should be called in without delay. The onset of the disease is generally ushered in by a severe chill, followed by a rapid rise in temperature, and a high fever. Sometimes in children, convulsions take the place of the chill. The sputum or mucus coughed up is rusty in color, and streaked with blood. This should be saved for the doctor to examine when he arrives. Pain is also complained of in the side and chest, and is aggravated by every movement made in breathing. It is commonly "stabbing" in character, due to pleurisy, that is the inflammation of the lining of the chest and covering of the lungs. As the disease progresses, the pain becomes lighter and disappears to a great extent. A short, hacking cough, which the patient tries to suppress, because of the pain it causes, is also noticed. As the lung cells become filled with mucus, the breathing gets more difficult, and the pulse more rapid. At first, the skin is hot and dry; later there may be a tendency to perspiration, which is sometimes profuse. The face is inclined to be pale, or of a dusky hue, with red spots on the cheeks. In severe cases, the dark hue is more pronounced, and the lips have a bluish tint.

The fever runs from five to eight days, at the end of which time the crisis may be looked for. The temperature will then fall in a few hours to almost normal. Generally, the rapid pulse decreases in proportion to the fever. If it does not, it indicates serious trouble—that the heart has become weakened. Strong stimulants should then be given, usually whisky or brandy, often in conjunction with other remedies, as the doctor may order.

The treatment of pneumonia varies considerably with the different physicians, yet a great deal depends on the nursing. The patient should be placed in a large, sunny, well-ventilated room. If it is possible have a stove in the room to keep the air warm. Fresh air and sunlight are absolute necessities. Great care must be taken to protect the patient from all drafts. Put the bed in the most sheltered corner of the room, and keep the temperature between sixty and seventy degrees. If the window is open, a draft may be prevented by pinning a thin piece of cotton over it. When the weather is too cold to admit the air directly, let fresh air come in from an adjoining room, where it has been warmed. Any sudden chill will irritate the cough and increase the pain. Yet one cannot insist too strongly on the need of warm fresh air, as in no other disease is it a more life-sustaining quality.

Have the bed clothes light and warm, never heavy; a flannelette sheet is better than a cotton one. If the patient sweats much, the sheets and his night-shirt should be changed at least twice a day. For his shirt, a soft flannel gown made to facilitate examinations of the chest and local applications is best.

If poultices are ordered, let them be hot and light. Never allow the poultice to become cold on the body, nor let the patient be exposed to cold in changing

it. The chest should be bathed twice a day with soap and water, and should be more frequently sponged if the fever is high. The soap-and-water bath should be in tepid water; the sponging may be cooler. Cleansing the skin keeps the pores open and induces perspiration, and thus aids the skin in the absorption of oxygen, and in the excretion of poisons.

When the fever is very high, the patient often gets delirious. He should then be watched with the utmost vigilance, as the delirium may assume a sudden frenzy, and he may attempt violence, or try to escape from his room. Extreme restlessness may sometimes be allayed by pouring cold water over the hands and arms, especially on the wrists. This will often induce sleep when everything else fails.

In order to make breathing easier, it will often be necessary to spray the nose and wash the mouth several times a day to keep the air passages free from obstruction. It is better to use an alkaline wash, as it loosens the mucus more quickly. If the sputum is very tenacious and persists in clinging to the throat, a teaspoonful of hot glycerine and soda bicarbonate (pure baking soda) may be swallowed to relieve the distress.

The diet is an important factor in pneumonia. It should always be liquid, and should be given frequently, but in moderate quantities. Crowding nourishment upon the patient does more harm than good. Let him take his food slowly, resting after each mouthful, in order not to excite the cough nor retard the breathing. As a rule, the chief food should be milk. To relieve the monotony, however, of such a diet, beef tea, soft-boiled eggs, or broth may be given. It is not necessary to deny the patient water, nor even lemonade, if he desires it. If delirious, water should be given him at short intervals.

The dishes used in the sick room should be kept separate, and cleaned by boiling them with soda-bicarbonate in the water. Although pneumonia is not considered an acutely-infectious disease, it may be in some cases, and should, therefore, always be regarded as such, the same care being used as in contagious diseases. Let the patient spit in old cloths, which can be turned at once. Boil the sheets, towels and night clothes well, and sprinkle with a solution of carbolic acid before handling. When sweeping the room, dip the broom in this same solution to destroy any germs that may linger in the dust. Avoid catching the patient's breath, especially when he is spitting or coughing, as in the sputum lurks the greatest danger of infection. On his recovery, disinfect the room thoroughly, either by burning sulphur or formaldehyde candles. Have the room well closed while these are burning, so the fumes cannot escape. With such precaution, the terrible progress and ravages of pneumonia ought, in a large measure, to be prevented.

As a last injunction, and one upon which too much stress cannot be laid, keep the patient quiet, and free from excitement. Do not allow visitors, no matter how well-meaning they are, in the room. The least exertion in talking raises the pulse, and leads to the weakening of the heart. Heart-failure is more frequently the cause of death than the disease itself. Knowing this, it is easy to understand the great importance of absolute quiet in the sick-room.

MARION SMITH, Graduate Nurse.

A country newspaper man who is very fond of honey visited a neighboring city recently, and at one of the hotels he was served with some delicious honey. He enjoyed it so much that he told his wife all about it when he returned home.

On his next trip to the city she accompanied him. They visited the same hotel, and when the noon meal was being served he said to his wife that he hoped they had some more of that honey. It did not appear, however, and the newspaper man, therefore, beckoned to a waiter and said: "Say, Sambo, where is my honey?" He was almost paralyzed when that worthy grinned and replied: "She doan work her no more, boss. She done got a job at the silk mill."

The wife received a handsome new dress before they returned home, after making a solemn promise not to tell the story.—Lippincott's.

## The Ingle Nook.

### The "Miss D." Discussion Closed.

Well, Chatterers, I suppose it is about time we were closing the Miss Darlingtona discussion. And, do you know, I just want to write about five tons of stuff about it. As a matter of fact, I did write this talk over five times (a trifle less than a ton each time, of course), and discarded the whole five articles, because, forsooth, every paper was long enough, almost, to monopolize the whole Home Department—Literary Society and all—and, then, wouldn't there have been an uproar?

But, to come right down to attention, don't you think the fact that of all the "voices" that spoke, there was only one to agree with Miss D., was a very sufficient refutation of her assertion that Canadian farmers' wives are slaves and the drudges of their husbands? What a rallying we had! and what an upholding of the Canadian farmer, who, it appears, does know how to treat his wife!

And didn't I just see our bevy of indignant women, Sunlight, Forget-me-not, Helponabit, Wrinkles, Four-leaved Clover, Margaret, and the rest of them—mature women, who know whereof they speak, women of character who have known what it is to think and work, and who have found out the genuine pleasure there may be in that work, if undertaken for love's sake, love of the family so dependent on it, or for interest in the work itself. Under such conditions, work cannot possibly be drudgery, no matter how hard it may be. Just these conditions are they which bring the song and the merry word to the lips, and the sparkle to the eye, and which rout morbid and undesirable thoughts, as the sunshine routs the shadow. . . . What a good thing it is that thought is free, and that it is possible to be just as good and just as great while bending over the wash-tub in an old dress, as when sitting in the daintiest of drawing-rooms clad in silk and lace. After all, one's thought—not one's apparel, or one's surroundings—is one's "self."

And, now, my young friend—not Sunlight or Helponabit or Forget-me-not, or any of you mature people, but my "young" friend the countryside over—if ever you hear anyone speak of manual labor of any kind as being "lowering," don't you believe it. Just refer that person to Thomas Carlyle, and Ruskin, and Hugh Black, and many another mental Titan, who has immortalized labor—manual labor—and point to the fact that "manual" training is becoming more and more a factor of all our best schools. Of course, it is foolish to spend all one's time on manual labor, just as foolish as it would be to spend all one's time on mental labor; one needs some time in which to read, and so provide one's mind with mental food for one's "working" hours—but that is another story.

And, now, just a word for the one little voice that dared to speak up bravely in favor of Miss D., notwithstanding the fact that it knew it would be mercilessly swamped. Yes, my dear, we cannot blind our eyes to the fact that there are always some women to whom farm work is a real drudgery. There is, of course, the lazy woman—but we'll not talk of her. Then there is the woman who, in spite of herself, cannot learn to like the country, or find any interest in farm work. She is rather deserving of pity, because she is restless, dissatisfied, unhappy. This state of mind may be due to several causes. Her home-life may not be of the pleasantest; she may not have happened upon that in country life which can interest her, or she may be just "built that way" and cannot possibly feel differently about the country. In the last case, there is probably no cure for her, and, sooner or later, she will drift into the town. In either of the other two, a cure may come speedily. Different conditions may come into her life, or she may turn philosopher, and see things in a new light. She may, perhaps, marry a handsome, strapping young farmer, and find that interest which has heretofore missed her; or she may take a taste of living in the town "on her own hook," and be quite willing to go back to the country and live contentedly ever after. This last

experience is one that has come to not a few country girls.

Finally, there are those women with whom we must all sympathize—women who by ill health or overwork work until it seems that the last straw has come to the back of the camel, have come to find the farm a pleasureless spot, and its work a drudgery. Chatterers, I do hope you will not give over sending hints to help these. To come right to business, why not write on the following topic? "What has helped me most in my house and farm work." Write on this just as soon as you can, won't you? "Wrinkles," hunt up some more wrinkles, and everyone else bring forward your "wrinkles," whether factory-made or whether mechanical contrivances, or thought-out-at-home systems, which have been found useful in lightening labor for the tired back and aching arms. Often people do not have things, or do things, simply because they do not know about them.

There is another topic suggested by the restless, dissatisfied farm maiden: "How to be interested in the farm and the country." Perhaps some of you would like to write on this; by doing so, you might be able to transform life for some unhappy girl. There's no knowing.

If you write on both topics, kindly keep them separate, and put separate headings. Of course, you may place both articles in the same envelope.

Just before closing, I would like to say that I think there were probably two reasons why Miss D. wrote as she did. In the first place, her observations were likely made out West, where the houses are, in general, smaller, and comforts and luxuries fewer than in the East. In the second, she was probably a city woman in easy circumstances, accustomed all her life to seeing such work as scrubbing and washing done by servants or charwomen; and when, in addition to these, she saw Canadian women doing so many other things, it was, perhaps, not unnatural that she should think as she did. You see, it was quite incomprehensible to her that many of these women, at least those who were neither lazy nor ill, nor overworked, were probably enjoying the work, like that old woman of whom Helponabit told. Helponabit, that was one of the strongest points made. DAME DURDEN.

#### Fig Cake.

Dear Dame Durden,—This wet weather, one doesn't feel like doing much else but sit around the fire. So I thought, as I had never yet met the Chatterers, I would draw my chair up to the nook for a little while.

I enjoy so much the letters from the Chatterers; we get so many useful hints. I have tried several of the recipes. Am sending one for fig cake. It makes a large cake, but it is one that keeps moist and nice for a long time. One lb. figs (cut small) put into a pan with 1 lb. brown sugar and pinch of salt. Cover with water. Cook slowly, two hours. Let this cool before making cake. I usually cook figs the day before. The figs, cooked this way, also make nice pies. Take 3 eggs, 1 cup brown sugar, 1 cup butter,  $\frac{3}{4}$  cup buttermilk, 1 large teaspoon soda. Add figs, and  $4\frac{1}{2}$  cups flour.

I wish Lankshire Lass would give us her recipe for making syrup. We are so fond of pancakes, and think this homemade syrup would be an improvement.

Could any of the Chatterers tell me anything about the care of Chinese lilies? If one saves the bulb, will it bloom again next year? Well, I must run away to my work now. If I stay too long the first time, you won't want me to come again. WEEPING WILLOW.

Welland Co., Ont.

A Chinaman tells me that the bulbs are useless after blooming.

#### Cleaning a Skirt.

Dear Dame Durden,—This is the first time I have written to your paper for help. I would like to know how to remove a color that has run into a light woollen skirt. Would some of the readers please answer it? VIOLET.

Frontenac Co., Ont.

It is very hard to remove such a stain. You might try H. and H. soap, which may be got at a drug store. If this is ineffectual, would advise dyeing the skirt some dark color.

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for your morning meal is "FIVE ROSES" BREAKFAST FOOD, because it is the most nutritious food you can obtain. Made from the highest grade Manitoba wheat, it contains every particle of nourishing matter it is possible to secure by the most scientific methods. Tastier than ordinary porridge, children and grown-ups alike enjoy and thrive upon it.

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#### A New Member.

Dear Dame Durden,—I have been a silent listener to the "chats" for a long time, but I can refrain no longer from stepping in and having a little "say" too. I must acknowledge that the hints given in the letters have been of great benefit to me, so I feel that I must try and do a little in return.

I was much taken up with Lankshire Lass' letter of November 15th. I would like if she would tell us how to make the syrup she mentioned, also the grape pie, as we grow a good many grapes, and I hardly know how to use them up.

Have any of the readers ever tried parsnips as a substitute for vegetable oysters in making soup, prepared in the same way? I do not believe in anything much in the way of imitation, but I find they are one of the "just as good."

Can anyone tell me what will remove the stains from white granite ware, also a recipe for tea biscuits made with Graham flour?

I would suggest that Jack's Wife call her home after that famous book, "Bleak House," that is one of the poetical names I know of.

In conclusion, I must say a word regarding the "Miss Darlington" discussion." Speaking from my own experience, I can say that most farmers' wives are anything but drudges. My good husband often helps with the washing, and only last week he washed my kitchen floor. I hope, dear Dame, that I have not worn out my welcome, as I might want to come again, so will say good-night. MCKAY.

Oxford Co., Ont.

Try rubbing the stains on the white granite with powdered borax or ammonia, slightly dampened, or with coarse salt, also dampened.

**Graham Wafers.**—Take 7 cups Graham flour, 1 cup of thick sweet cream or butter, 1 pint sweet milk, 2 teaspoons baking powder. Sift the baking powder and the flour; add the cream, with a little salt, and then the milk. Mix, roll very thin, cut to form wafers, and bake quickly.

**Graham Gems.**—Take 1 pint sweet milk, 3 even cups Graham flour,  $\frac{1}{2}$  teaspoon salt, 2 teaspoons baking powder, 1 tablespoon melted butter, and 2 eggs. Beat the eggs, and add the milk, salt and butter. Sift the baking powder into the flour, and stir it into the batter. Put pans, which have been well greased, and bake  $\frac{1}{2}$  hour.

Can anyone send a recipe for the tea-cakes?

#### Good Stovepipe Blacking.

Someone asked some time ago regarding the best stovepipe blacking. I have since been told that Nonsuch stovepipe blacking is the best. Lampblack mixed with linseed oil, and applied with a rag, is also recommended.

#### Answer to Mother of Two.

Dame Durden.—If Mother of Two will keep her little boy's feet very warm, and let him sleep with stockings on at night, he will not be troubled with chilblains very long. It is a very simple cure, but is very effective.

WILSON, T. G. SILERY.

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## Bob, Son of Battle.

BY ALFRED OLLIVANT.

(Serial rights secured by "The Farmer's Advocate and Home Magazine.")

### CHAPTER XVIII.

How the Killer was Singed.  
No further harm came of the incident; but it served as a healthy object-lesson for the Dalesmen.

A coincidence it may have been, but, as a fact, for the fortnight succeeding Kirby's exploit there was a lull in the crimes. There followed, as though to make amends, the seven days still remembered in the Daleland as the Bloody Week.

On the Sunday the Squire lost a Cheviot ewe, killed not a hundred yards from the Manor wall. On the Monday a farm on the Black Water was marked with the red cross. On Tuesday—a black night—Tupper at Swinthaite came upon the murderer at his work; he fired into the darkness without effect; and the Killer escaped with a scaring. On the following night Viscount Birds-eye lost a shearing ram, for which he was reported to have paid a fabulous sum. Thursday was the one blank night of the week. On Friday Tupper was again visited and punished heavily, as though in revenge for that shot.

On the Saturday afternoon a big meeting was held at the Manor to discuss measures. The Squire presided; gentlemen and magistrates were there in numbers, and every farmer in the countryside.

To start the proceedings the Special Commissioner read a futile letter from the Board of Agriculture. After him Viscount Birds-eye rose and proposed that a reward more suitable to the seriousness of the case than the paltry £5 of the Police should be offered, and backed his proposal with a £25 cheque. Several others spoke, and, last of all, Parson Leggy rose.

He briefly summarized the history of the crimes; reiterated his belief that a sheep-dog was the criminal; declared that nothing had occurred to shake his conviction; and concluded by offering a remedy for their consideration. Simple it was, so he said, to laughableness; yet, if their surmise was correct, it would serve as an effectual preventive, if not cure, and would at least give them time to turn round. He paused.

"My suggestion is: That every man-jack of you who owns a sheep-dog ties him up at night."

The farmers were given half an hour to consider the proposal, and clustered in knots talking it over. Many an eye was directed on M'Adam; but that little man appeared all unconscious.

"Weel, Mr. Saunderson," he was saying in shrill accents, "and shall ye tie Shep?"

"What d'ye think?" asked Rob, eying the man at whom the measure was aimed.

"Why, it's this way, I'm thinkin'," the little man replied. "Gin ye haud Shep's the guilty one I wad, by all manner o' means—or shootin'd be aiblins better. If not, why"—he shrugged his shoulders significantly; and having shown his hand and driven the nail well home, the little man left the meeting.

James Moore stayed to see the Parson's resolution negatived by a large majority, and then he too quitted the hall. He had foreseen the result, and, previous to the meeting, had warned the Parson how it would be.

"Tie up!" he cried almost indignantly, as Owd Bob came galloping up to his whistle. "I think I see myself chainin' yo', owd lad, like ony murderer. Why, it's yo' has kept the Killer off Kenmuir so far, I'll lay."

At the lodge-gate was M'Adam, for once without his familiar spirit, playing with the lodge-keeper's child; for the little man loved all children but his own, and was beloved of them. As the Master approached he looked up.

"Weel, Moore," he called, "and are you gaein' to tie yer dog?"

"I will if you will yours," the Master answered grimly.

"Na," the little man replied, "it's Wullie as frichts the Killer aff the Grange. That's why I've left him there now."

"It's the same wi' me," the Master

said. "He's not come to Kenmuir yet, nor he'll not so long as Th' Owd Un's loose, I reck'n."

"Loose or tied, for the matter o' that," the little man rejoined, "Kenmuir'll escape." He made the statement dogmatically, snapping his lips.

The Master frowned.

"Why that?" he asked.

"Ha' ye no heard what they're sayin'?" the little man inquired with raised eyebrows.

"Nay; what?"

"Why, that the mere reputation o' th' best sheep-dog in the North should keep him aff. An' I guess they're reet," and he laughed shrilly as he spoke.

The Master passed on, puzzled.

"Which road are ye gaein' home?" M'Adam called after him. "Because," with a polite smile, "I'll tak' t'ither."

"I'm off by the Windy Brae," the Master answered, striding on. "Squire asked me to leave a note wi' his shepherd t'other side o' the Chair." So he headed away to the left, making for home by the route along the Silver Mere.

It is a long sweep of almost unbroken moorland, the well-called Windy Brae; sloping gently down in mile on mile of heather from the Mere Marches on the top to the fringe of the Silver Mere below. In all that waste of moor the only break is the quaint-shaped Giant's Chair, puzzle of geologists, looking as though plumped down by accident in the heathery wild. The ground rises suddenly from the uniform grade of the Brae; up it goes, ever growing steeper, until at length it runs abruptly into a sheer curtain of rock—the Fall—which rises perpendicular some forty feet, on the top of which rests that tiny grassy bowl—not twenty yards across—they call the Scoop.

The Scoop forms the seat of the Chair and reposes on its collar of rock, cool and green and out of the world, like wine in a metal cup; in front is the forty-foot Fall; behind, rising sheer again, the wall of rock which makes the back of the Chair. Inaccessible from above, the only means of entrance to that little dell are two narrow sheep-tracks, which crawl dangerously up between the sheer wall on the one hand and the sheer Fall on the other, entering it at opposite sides.

It stands out clear-cut from the gradual incline, that peculiar eminence; yet as the Master and Owd Bob debouched on to the Brae it was already invisible in the darkening night.

Through the heather the two swung, the Master thinking now with a smile of David and Maggie; wondering what M'Adam had meant; musing with a frown on the Killer; pondering on his identity—for he was half of David's opinion as to Red Wull's innocence; and thanking his stars that so far Kenmuir had escaped, a piece of luck he attributed entirely to the vigilance of Th' Owd Un, who, sleeping in the porch, slipped out at all hours and went his rounds, warding off danger. And at the thought he looked down for the dark head which should be travelling at his knee; yet could not see it, so thick hung the pall of night.

So he brushed his way along, and ever the night grew blacker; until, from the swell of the ground beneath his feet, he knew himself skirting the Giant's Chair.

Now as he sped along the foot of the rise, of a sudden there burst on his ear the myriad patter of galloping feet. He turned, and at the second a swirl of sheep almost bore him down. It was velvet-black, and they fled furiously by, yet he dimly discovered, driving at their trails, a vague hound-like form.

"The Killer, by thunder!" he ejaculated, and, startled though he was, struck down at that last pursuing shape, to miss and almost fall.

"Bob, lad!" he cried, "follow on!" and swung round; but in the darkness could not see if the gray dog had obeyed.

The chase swept on into the night, and, far above him on the hill-side, he could now hear the rattle of the flying feet. He started hotly in pursuit, and then, recognizing the futility of following where he could not see his hand, desisted. So he stood motionless, listening and peering into the blackness, hoping Th' Owd Un was on the villain's heels.

(To be continued.)

## 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 50 cents.

**BARRED ROCKS.** Buff Orpingtons, Rose-combed Black Minorcas, Brown Leghorns, Imperial Pekin ducks. One pen of each only. Headed by two of the best and strongest in Canada. Visitors welcome. Mimia Poultry Yards, Harvey Perkins, Oshawa, Ont.

**FOR SALE**—Pure-bred cockerels—Barred Rocks, Buff Orpingtons, White Leghorns, Guinea fowl—\$1.00 each. John R. Morgan, Wales, Ont.

**FOR SALE**—Bronze turkeys. Large young toms with brilliant plumage. Ghas. W. Bainard, Glanworth, Ont.

**HEAVY-LAYING** White Leghorn hens and coo erels to go at a bargain. Write for particulars. Jas. L. McCormack, Brantford, Ont.

**INGLENOOK** Park Poultry Farm offers a few cockerels only. W. Leghorns, B. Minorcas, W. Wyandottes, Buff Orpingtons. Only best laying strains are bred here. A rare opportunity to secure the best reasonable, no fancy prices asked. W. H. Smith, Head Office, 41 Spruce St., Toronto, Ont.

**LAST** chance to buy blue ribbon S. L. Wyandottes. Four trios for sale at \$1.00 a trio up. Correspondence a pleasure. Herbel & B-gues, Box 940 Hanover, Ont.

**MAMMOTH** Bronze Turkeys, Silver-Gray Dorkings, Barred Rocks, from prizewinners. Pairs not akin. Alfred E. Shore, White Oak, or 560 English St., London.

**MAMMOTH** Bronze turkeys, bred from imported stock. We have an extra heavy and well-colored lot. T. Hardy Shore & Sons, Glanworth, Ont.

**MAMMOTH** Bronze turkeys, bred from imported prizewinning toms and hens. Part of stock from the first prize Pan-American winners (Hilpp's strain). My cockerels weigh 25 pounds each. Pairs mated not akin. B. G. Rose, Glanworth, Ont.

**SECOND** to none—Miller's Barred Plymouth Rock cockerels, bred from a good laying strain, headed by first-prize imported eleven-lb. cockerel. Show birds a specialty. Satisfaction guaranteed, or money refunded. Herbert J. Miller, Lorenz P.O.

**S. C. White** Leghorn cockerels, \$1; Selects, \$1.25, \$1.50 to \$2 per two. E. E. Findall, Smithfield Ont.

**THOROUGHBRED** Light Brahmas. Year-old hens, \$1 each; 1 cock, \$1.50. H. Seaward, Britannia Ont.

**Hatch Chickens by Steam with the EXCELSIOR INCUBATOR OR WOODEN HEN**

Simple, perfect, self-regulating. Hatch 100 eggs in 21 days. Lowest priced first-class hatchers made. G. E. Stahl, Quincy, Ill.

Send for free Catalogue.

Advertisements will be inserted under this heading such as Farm Properties, Help and Situations Wanted, Fat 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.

**FOR SALE** at a bargain—Pure-bred Collies, three months old. Robt. Merkley, North Williamsburg, Ont.

**FOR** \$7,000 I will sell the best stock and a rain farm in the County of Simcoe. This farm contains 117 acres, all under cultivation; has a new \$3,000 brick house; plenty of stable room; and is provided with an artesian well with a capacity of a barrel every four minutes; is well fenced, and is only two miles from market. Terms arranged. Address: "Owner," 1267 Queen street west Toronto, Ont.

**FOR SALE**—First-class stock or dairy farm. 400 acres, two brick houses, four large barns, stable, drive-house, all necessary outbuildings in first-class order; good orchard, choice fruit; rich loamy soil, clay subsoil; abundance of clear running water all year; 60 acres timber, mostly beech and maple; good neighborhood, on good road; is an exceptionally fine farm, will be sold cheap; owner contemplates retiring. Can be divided in two or three farms if necessary. Wh go to the cold Northwest when you can purchase such a good farm in Southern Ontario, the mildest climate in Ontario? For further particulars enquire of John Campbell, St. Thomas, Ont.

**HAVE** you tried to grow mushrooms? If you have and failed, write Fungus Company, London, Ont., and find out how.

**SCOTCH** Collie Puppies. Sire imported Oriskany more Clyde, ex good heeling bitch. A practical Christmas present for boys. W. J. Johnston, Box 246, Meaford Ontario.

**ALEX. YOUNG,**  
Glanford, Ont.,  
**LIVE-STOCK AUCTIONEER**

Pedigreed Stock a Specialty.

## Repulsive Pimples, Blackheads, Blotches,



and all other forms of Acne are quickly and permanently eradicated by our reliable home remedies.

### Acnetine and Dermo-Nervine

which act both externally and internally on the skin. A combination that cannot be beaten. Thousands have been cured, why not you? Price for both, \$1.50, postpaid.

### Princess Dandruff Cure

clears the scalp of dandruff and scale. If the hair is falling, turning prematurely gray, or becoming lifeless, use

### The Hiscott Hair Tonic

\$1.00 each, express paid.

**Superfluous Hair, Moles, etc.**, eradicated for ever by our reliable method of Electrolysis. Satisfaction guaranteed.

Remedies for all skin, scalp, hair and complexion trouble. Consultation free by mail. Send 10c. for booklet "F" and sample White Rose Cream.

**Graham Dermatological Institute,**  
Dept. F, 502 Church Street, Toronto.

### FREE HAIR FOOD

Trial Box to Prove Its Worth. THE ONLY WAY to tell the cause of falling hair in men and women is to make a MICROSCOPIC EXAMINATION of the hair. When the DISEASE IS KNOWN THE CURE CAN BE PRESCRIBED. Send a few hairs to Prof. J. H. Austin, the 30 years' Scalp Specialist and Bacteriologist and receive ABSOLUTELY FREE a diagnosis of your case, a Booklet on Care of Hair and Scalp and a Box of the Remedy which he will prepare for you. Enclose 2 cent postage.

PROF. J. H. AUSTIN, 1335 MeVicker's Theatre Bldg., Chicago

**Wedding Invitations, Wedding Announcements, Visiting Cards.**

Latest styles. Latest type. Prompt attention to mail orders.

**The London Printing & Litho. Co.**  
144 Goring St., London, Ont.

### \$12 WOMAN'S SUITS, \$5

Suits to \$15. Cloaks, raincoats, skirts and waists at manufacturers' prices. Send for samples and fashions.

**Southcott Suit Co., Dept. F, London, Can.**

### Scotch-bred Shorthorns

Seven buds from 10 to 18 months old, also cows and heifers in calf to Good Morning, imp., at let-live prices.

L. K. WEBER, Hawkesville, Ont.

## THAT FREE BOOK.

It is not yet ready, but it is worth waiting for, and it is worth writing for; and, as it is given free of charge, the great delay should not cause any great inconvenience. Names are still coming in, and we are adding them to our list. We would like to present every Advocate reader with one of these books, and we are sure that each reader would like to have one did he know what they were like. We cannot give a full description of the book here, but we do not think anything like it has ever before been published, and we are sure that nothing equal to it has ever been offered free of charge.

The book contains seventy illustrations, and each one of these illustrations has to do with the very best pure-bred stock in Canada. Herds and flocks are represented which have won the greatest honors that can be won in America. We would like you to send us your name and address. Send it at once, and we will place you on our list, and you will receive the book without fail. Our address is: The Beaver Mfg. Co., Galt, Ont.

## Grand Trunk Ry. System

### NEW YEAR HOLIDAY RATES.

**TERRITORY**—Between all stations in Canada; also to Detroit and Port Huron (Mich.), Buffalo, Black Rock, Niagara Falls, and Suspension Bridge (N. Y.).

**AT SINGLE FARE**—Good going December 31st and January 1st; returning until January 2nd, 1907.

**AT FARE AND ONE-THIRD**—Good going December 28, 29, 30, 31, and January 1; returning until January 3rd, 1907.

For tickets and full information call on

**E. DE LA HOOKE**, City Passenger and Ticket Agent.  
**E. RUSE**, Depot Ticket Agent.  
London, Ont.

**J. D. McDONALD**,  
District Passenger Agent, Toronto.

**SHORTHORNS FOR SALE**—Imported Triumvir, and two young bulls—one dark roan 11 months old, and one red 6 months old—by the imported bull. Also young cows. **DAVID CLOW**, Whitechurch P. O. and Station.

### GOSSIP.

#### MR. ROBINSON'S SHORTHORN SALE.

At his farm, in Markham village, Ont., twenty miles from Toronto, on Jan. 10, 1907, Mr. Ed. Robinson will sell by auction 41 head of Scotch Shorthorn cattle, sixteen of the females being imported together with the stock bull, all the rest being the progeny of imported sires and dams, and representing such fashionable strains as Lovelace, Marchioness, Jilt, Princess Alice, Fancy (which is the same strain as the Buchan Lassie), Bessie, Jeannine, Duchess, Gwynne, Bellona, Marvel (which is the same as the Marigolds that have produced so many Toronto winners), Lady Dorothy, Broadhooks, etc.; the get of such well-known and high-class sires as Scotland's Fame, Ivanhoe (a son of the \$10,000 bull, Merry Hampton), Scottish Prince, Lovat's Chief, Sanquhar's Heir, Scottish Victor, Proud Star, Conqueror's Crown, Rustic Chief, and of the two grand stock bulls, one of which is Imp. Royal Champion =50082=, of the Marr Roan Lady tribe, bred by Mr. Reid, Cromley Bank, sired by Morning's Pride, a son of the champion Pride of Morning, dam Roan Lady 23rd, by Minstrel Boy, grandam by Elocutionist, a son of the noted Heir of Englishman, great-grandam by William of Orange. He is a roan four-year-old, a massive, thick, soggy bull, with grand lines, well-sprung ribs, and a well-covered back, a bull fit to head any herd, and certainly one of the best that has been offered by auction for some time. All the younger stuff, with three or four exceptions, are sired by him. The other bull is King of Diamonds =60099=, by Penman Diamond (imp.), dam Mary 15th (imp.), by Morning Pride. He is a three-year-old roan, an exceptionally mellow handler, and a rare good doer, very straight-lined and even, and his get show up remarkably well. These will both be sold, besides eight other young bulls,

along about eleven and twelve months of age, among them being some rare good ones that will make high-class bulls, all from imported sire and dam, and a number of one-, two- and three-year-old heifers, all making an offering of high-class Shorthorns seldom equalled before at an auction sale in Canada. For further notes on the breeding of the herd, look up our next issue. As above stated, the farm is in the village of Markham, only about a quarter of a mile back of the Franklin House. Markham is on the Midland branch of the G. T. R., 20 miles north-east of Toronto. Train leaves Toronto 7.50 a. m. Farm is also four miles west of Locust Hill Station, C. P. R., where conveyances will meet morning train from the east. The terms will be cash, unless other arrangements are made before the sale commences. Capt. T. E. Robson, London, and George Bellows, Marysville, Missouri, will officiate as auctioneers. If interested, look up our next issue, and arrange to attend, as all the animals are gilt-edged, and are breeders—no culls or non-breeders.

#### SALE DATES CLAIMED.

Jan. 1st.—W. M. Smith, Scotland, Ont., Ayrshires.

Jan. 8th.—G. A. Brodie, Bethesda, Ont., imported Clydesdale fillies.

Jan. 9th.—W. C. Edwards & Co., Rockland, Ont., Shorthorns, annual sale.

Jan. 10th.—Ed. Robinson, Markham, Ont., dispersion sale of Shorthorns.

Jan. 15th.—W. Doherty, Clinton, Ont., dispersion sale of Shorthorns.

Jan. 16th.—A. H. Jacobs, Blyth, Ont., dispersion sale of Shorthorns.

#### W. M. SMITH'S AYRSHIRE SALE.

The attention of breeders of Ayrshire cattle and dairymen generally is called to the advertisement of the dispersion sale of the useful-working herd of 30 registered Ayrshires belonging to Mr. W. M. Smith, of Scotland, Oxford County, Ont., to take place at his farm, on January 1st, 1907. This herd is of long standing, and has made a very creditable record in prizewinning at leading shows and in milking trials at the dairy shows, being heavy milkers, and a good, thrifty sort, moneymakers at the pail. Twenty pure-bred Southdown sheep are also included in the sale, and a number of Duroc-Jersey hogs.

At the winter shows, Chicago International and Ontario Winter Fair, Guelph," writes Mr. John Campbell, of Fairview Farm, Woodville, Ont., "the Shropshire flock from Fairview Farm fully maintained its past reputation. Winning at Chicago more of the honors and cash prizes offered than any two competitors in breeding and wether classes was rather satisfactory. At Guelph, in every section competed in, where a money prize went with the ribbon, first was won in each, but one, and second was awarded in that case. In nearly every instance where first was won, the ribbon for second place was also secured. Twice 1st, 2nd and 3rd prizes were won in strong competition. At Chicago I had the satisfaction of finding my flock offerings in extraordinary demand. A ram lamb ordered months before by a Michigan customer, with International delivery, won first in American-bred class. Another Indiana customer, getting in after all the best lambs were sold, offered \$85 for the winner, being an advance of \$35. But a hundred would not buy him. Mr. Stovall, from Jameson, Mo., a customer of ten years' standing, secured two choice ewe lambs and the shearing ram, Planter. The latter is supposed to be the best sire ever produced at Fairview. It was the intention to keep him; but \$125, accepted very reluctantly by the seller, carried him westward. He was winner of first and championship in American-bred class. The afternoon he was sold, imported shearing rams were auctioned off in dozens at \$45 to \$60 each in the same building. Messrs. A. T. Grimes, Greenwood, Mo.; W. C. Lloyd, of Michigan; R. Cloyd, of Indiana, and Chas. Cleveland, of Oregon, bought rams and ewes of choice quality at handsome figures."

#### Hackneys at New York.

The entries in the Hackney breeding classes at the New York Horse Show were no greater in number this year than they were last, but in most instances the exhibits were of a better quality. Of the four entered in the class for stallions, with four of their get, Royal Oak, owned by Graham Bros., Claremont, Ont., and McKinley, owned by Grand View Farm, came into the ring. McKinley clearly outpointed his rival, and if stallions alone had been considered there would be no question as to the winner, but the judges liked the get of Royal Oak best, and awarded the blue ribbon to Graham Bros.' entry.

The class for Hackney stallions, four years old or over, 15.1 and over, had seven entries, including some of the best horses in the country. Among this lot were McKinley and Tiger Lily, and many supposed that the contest for first honors would be between these superb specimens; but Mr. E. D. Jordan sent into the ring the seven-year-old bay stallion, Meanwood Majesty, by Forest King, that proved the superior of both.

This grand animal stands 15.2, and in most respects resembles his illustrious sire more closely than any of the other get that have been exhibited here. His conformation is not quite equal to that of McKinley, nor his gait any better than that of Tiger Lily, but as an all-round high-class show horse, he is one of the best ever exhibited by Mr. Jordan. Meanwood Majesty also defeated Oxford and Aguius for the championship McKinley was placed over Tiger Lily, who in turn defeated Graham Bros.' Colorita.

By far the most breezy-looking stallion seen at the show was Graham Bros.' Dalton King, by Garton Duke of Connaught-May Queen, exhibited in the class for stallions four years old or over, 14.2 and under 15.1, in which there were four entries. Although Dalton King was defeated by Oxford for first honors, the judgment of Hackney experts who witnessed the contest was practically unanimous in pronouncing him the superior of any Hackney stallion at the show. Mr. Jordan exhibited another son of Forest King in this class, called Warwick Marshall, a slashing big four-year-old chestnut, out of Ladyford, but he was beaten for third place by Mrs. Gerken's Brandon.

Those who witnessed the Hackney exhibit last year will doubtless recall the splendid showing made by Hiawatha, the great son of Rosador-County Fashion. He was then two years old; since then he has developed to some extent, and was again in the ring at this show in the three-year-old stallion class. But as good as he is, he met his superior in Aguius, by St. Thomas-Foxhole Pride, a magnificent chestnut standing 15.1, recently imported by Carr Bros. Another extra good one in this class was Brigham Radiant, by Rosador-Brigham Belle, exhibited by the Graham-Renfrew Company, Bedford Park, Ontario.

If Graham Bros. were unsuccessful in winning blue ribbons in some of the older classes, they swept everything before them with Crayke Mikado, by Garton Duke of Connaught-Halsham Topsy, in the two-year-old stallion class. This colt is a bright bay, of commanding presence, has a high and evenly-balanced action, and was so far superior to the rest of the class as to make them look cheap by comparison, although, as a matter of fact, they were more than fairly good.

The feature of the brood mare class was the appearance of the famous ex-harness champion, Hildred, and this great popular favorite never looked to be in better condition. She displayed the same graceful movements and beautiful action that gained for her a national reputation as a high-stepper, and won not only this class, but the championship for the best Hackney mare.

The class for two-year-old fillies had only two entries, and of these Mr. Jordan's Royal Bokwara, by Gentleman John, so far outclassed Mr. Freeman's Esmeralda, by Derby Danegelt, as to rob the contest of exciting features.

The four fillies shown in the yearling class were probably as good an average lot as has yet been exhibited. They were placed in this order: Graham Bros.' Maud of Waverley, Royal Oak II.; Mr. Jordan's Flower Queen, by

Gentleman John; Graham Bros.' Maid of Glendower, by Royal Oak II., and William Gargan's Patience, by Tiger Lily.—(Rider and Driver.)

#### Roosevelt's Message to Congress

On December 4th, President Roosevelt communicated to the United States Congress his annual message. Perhaps the most important topic touched upon was the ownership and disposition of the remaining coal lands still held by the National Government. He stated that he had temporarily withdrawn from settlement all the lands which the geological survey had indicated as containing or probably containing coal. The question, however, could be satisfactorily settled only by legislation, which should provide for the withdrawal of these lands from sale or entry, save in special circumstances. The nation should own and lease them on a royalty basis, retaining control over the prices to be charged consumers, at the same time supervising the rates charged by the companies which transport the coal.

Other points in his message are:

A law prohibiting all corporations from making contributions for any political purpose, directly or indirectly.

Adequate Federal control and regulation of railways.

National legislation regarding marriage and divorce.

More stringent laws to hamper pelagic sealing in the Pacific.

Legislation for the development by subsidies of United States shipping.

A law enabling the President to enforce in the various States the right of aliens under treaties. This has reference to the refusal of the San Francisco School Board to let Japanese children study in the same schools as white children.

The maintenance of the navy at its present strength.

National shooting galleries in all public schools, and national targets for riflemen in different parts of the country.

#### For Users of Kerosene.

1. Kerosene should always be handled by daylight and away from all flames and fires. Under no circumstances whatever should a lamp be filled while its wick is lighted.

2. After filling a lamp both the burner and the reservoir should always be carefully wiped free from oil films.

3. When a lamp is not burning it is well to keep the wick a little below the top of the tube. This helps prevent oil from working over upon the burner and reservoir.

4. Fill your lamps as often as they are used. Especially do not light a lamp when the oil is low in the reservoir.

5. Remembering that even explosive vapor can do no harm unless in some way it actually comes in contact with a flame, never use a burner which fits loosely upon the rest of the lamp.

6. Never use a wick which does not fit the tube provided for it.

7. Never blow out a kerosene flame downward. Turn down the wick a little and let the flame go out of itself. If you must blow it out, blow upward through the burner or blow across the top of the chimney. Both of these methods produce an upward draught.

8. Always keep the kerosene can and filler in a clean, well-ventilated place, where no lights ever come.

9. If you must continue the reprehensible practice of using the kerosene to kindle a fire, do not use it directly from the can. Pour the oil you are to use into an open cup away from the stove and use the cup to distribute it. Even this is dangerous if any heat remains from the last fire.

10. Never keep gasoline in the house at all, and, if possible, never use it except out of doors. Gasoline in the house will get into a lamp sometimes.—[Good Housekeeping.]

**QUESTIONS AND ANSWERS.**

1st.—Questions asked by bona fide subscribers to the "Farmer's Advocate" are answered in this department free.  
2nd.—Questions should be clearly stated and plainly written, on one side of the paper only, and must be accompanied by the full name and address of the writer.  
3rd.—In veterinary questions, the symptoms especially must be fully and clearly stated, otherwise satisfactory replies cannot be given. 4th.—When a reply by mail is required to urgent veterinary or legal enquiries, \$1 must be enclosed.

**Miscellaneous.**

**SIMPLE MILK TESTERS.**

Do you know of any reliable milk tester convenient for carrying in the pocket, and also where it can be purchased?  
J. S. S.

Waterloo Co., Ont.  
Ans.—A little instrument called the pioscope was once used, but only gave an approximate idea from the appearance of a few drops of the milk under glass of its content of fat. It is not regarded as a test. The Quevenne lactometer is a small graduated glass cylinder, weighted by mercury or fine shot, and is used to determine the specific gravity of milk, that is to say the weight of a given volume compared with an equal volume of water. The specific gravity of milk is greater than that of water. The lactometer will sink further in milk of low specific gravity. Some city milk inspectors have used a lactometer to give them an idea whether the milk was watered or not. Apart from chemical analyses, the Babcock test is the only recognized test for butter-fat in general use. Further information regarding the cost of such instruments could be secured from any dairy supply dealers advertising in these pages; but its not a pocket test.

**CEMENT SILO AND STABLE FLOOR.**

1. What would be the probable cost of a cement silo of 100 tons capacity, and also, what are the dimensions?
  2. Latest mode of constructing same?
  3. Gravel is plentiful, about 1 1/2 miles away, stone also. What would be the cost of putting concrete floor in a building, and foundation under same, 90 feet in length by 28 feet in width? Average depth of concrete would need to be at least 24 inches all through, to bring the floor up to a level with sills. Said building to stable 32 head horned cattle, remainder horses and box stalls.
  4. How is gravel generally purchased, by the yard or ton?
  5. Is it advisable to have bottom of manger on a level with feed alley, or rather lower?
  6. In putting on finishing touch on floor, what are the proportions of sand to cement?
- W. L.
- Ans.—1. A round cement silo of fifteen feet diameter inside and thirty feet high would hold, if full, slightly over one hundred tons. It would cost probably \$200 or over.  
2. Cement silos are nearly all at the present time being built in round form. In the vicinity of London they are usually built by men who make a specialty of such work. They use two immense steel hoops, two and a half feet wide, and of proper length, one for the inside and the other for the outside. These can be lengthened or shortened to suit. At every shift, that is, in each two and a half feet, there is imbedded in the wall a rod of iron or of very heavy wire, with ends looped together. Five dollars per perpendicular foot has been the charge in some cases for building and furnishing cement. Farmer to supply gravel and board men. The wall is usually a foot thick, sometimes tapered to a little thinner at the top.  
3 and 6. Very few would think of filling up the two feet with concrete. A wall would be built under the sills, and the floor put on the level, or earth well packed would be used to raise the floor. If everything is solid underneath, three inches is thick enough for stable floor. To construct floor that thickness in your barn, with fine facing, would require six and a half cords of gravel and twenty-eight barrels of Portland cement, mixed in the proportion of one of cement to three of sand for half inch surface, and one to ten of gravel below. A convenient and sufficiently exact rule for concrete work is: Mixed one to ten, each 100 cubic ft. requires one cord of gravel and three barrels of cement.  
4. By the load, yard or cord.  
5. A few inches lower is the usual practice.

**AGE OF BREEDING GANDER.**

How long may one keep a gander for breeding purposes?  
F. J. D.

Ans.—It is claimed that male geese are valuable for breeding purposes up to the age of six or seven years.

**SLIDING CLOTHESLINE.**

Will you print a picture in "The Farmer's Advocate" of one of those clotheslines that will slide up to the door, and go back again?  
F. W. B. A.

Ans.—Will some reader, who has one, kindly send us a pen-sketch, with description?

**GOSSIP.**

**A HIGH-CLASS SHIPMENT.**

The "Scottish Farmer" contains the following reference to the shipment of 28 Clydesdale stallions, five fillies and two Hackney stallions, recently exported via the Donaldson liner, Marina, for Canada, by Mr. Oswald Sorby, of Guelph, Ont., and Mr. J. H. Turner, of Alberta. The lot were bought in one deal from Messrs. A. & W. Montgomery, Netherhall and Banks, Kirkcudbright. The shipment included a large number of animals likely to win in the Canadian show-yards. One of them is a rising three-year-old stallion, by the fine-breeding horse, Royal Edward, and another is a black colt of the same age, got by the noted Acme (10485) (now Mr. Sorby's stud horse), out of a mare by the Glasgow premium horse, The Summit. His thick, heavy cart-horse proportions have made him as big a favorite in Canada as he was in this country, where he gained many district premiums, and was frequently in the prize list at the H. and A. S. shows. This black colt is one of the most captivating Canadian horses in the shipment. These two horses are perhaps the best animals of their age shipped this season. Another very good colt, of the same age, is by the Dumfries premium horse, Baron Romeo (11366), an H. and A. S. winner, and a grand type of the Clydesdale cart stallion. Rozeile (10638), the sire of the winning three-year-old at the H. and A. S., Peebles, is represented by the uterine brother of Mr. Clark's great young horse, Dunydeer. There is a superbly-bred three-year-old, by the unbeaten Everlasting, out of a Macgregor daughter of the 1,000 gs. mare, Queen of the Roses. An exceptionally big, powerful horse is by the H. and A. S. champion horse, Prince Thomas (10262), out of a mare by the H. and A. S. first-prize horse, Moncreiffe Marquis (9953). Another Acme horse is out of a mare by the famous Macgregor, and the lot includes the well-bred horse, Rathillet (11870), which won second at the Royal Northern Spring Show in 1905, and was got by the H. and A. S. champion horse, Benedict (10315). Rathillet was for one season stud horse in the Blacon Point stud, the closing-out sale of which made record prices. Several colts in the shipment are by the favorite premium horse, Pride of Blacon (10837). One is by the Stirling premium horse, Argosy (11247), and another by the noted big horse, Drumflower (10537), which won first prizes at the H. and A. S. shows, and was exported to Australia. There are two splendid yearling colts, by the Kirkcudbright prize horse, Majestic, which bred stock that commands the Western market. Other sires represented in the stallion shipment are the famous breeding horse, Royal Favorite (10630), the big, good sire, Boreland Pride (10318), a favorite wherever known, Baron Lothian (12461), the powerful big horse, Enigma (10739), the Lord Harry (11097), that excellent breeding horse, Sir Harry (9411), and, finally, the champion breeding horse, Baron's Pride (9122).

Among the fillies is a full sister to Pyrene, the champion mare of 1906, a daughter of Baron's Pride, and herself likely to make a champion. Mr. Sorby, on a former occasion, had another full sister of Pyrene, which took champion honors at Toronto. A Baron Romeo filly is included, which stood second at New Cumnock in spring, and another yearling filly is by Baron Houdston, out of the same dam as the £140 two-year-old filly at the Lanark autumn sale this year, where she was first. A yearling by the Edinburgh first-prize horse, King's Crest, and a two-year-old by the celebrated Woodend Garty, make up an exceptionally high-class lot of fillies. The Hackneys were bred in Yorkshire, and

**THE ROCKLAND SHORTHORN SALE.**

The catalogue of the young Shorthorn bulls and heifers in the Pine Grove herd of Senator [redacted] of Rockland, Ont., near Ottawa, should satisfy the most exacting demand for pedigree rich in Cruickshank, Duthie and Marr breeding, as nearly all the most noted families in the herds of those master breeders are well represented, and in the Pine Grove herd the character of those families has been well maintained, as anyone who sees the offering at this sale will freely acknowledge, the animals being true to the approved modern type, healthy, vigorous, low-set, thick-fleshed, grand handlers, and covered with splendid coats of mossy hair. The score of young bulls catalogued, most of them ready for present use, should have a splendid influence in the herds in which they are placed. It is doubtful whether any one herd, even in Great Britain, at the present time, could show their equal in breeding and individual merit. And, since prices are so very high over there, it is unlikely that first-class bulls will be imported for some time. Good bulls are none too plentiful in this country, and the youngsters in this offering should find ready buyers at fair prices to go into our own herds. The space at our disposal will not admit of individual description of the animals in the catalogue, and it would be largely a repetition if attempted, as there is a striking uniformity of type and character running through the entire offering. The first in the list, Golden Ray, a roan bull, sixteen months old, is among the best of the bunch. He is of the Cruickshank Braith Bud family on his dam's side, sired by Missie Champion, the red son of the \$6,000 Marr-bred Missie 153rd, and is out of the same dam as Golden Bud, the junior champion female at Toronto in 1903, and first-prize cow at the International, Chicago, in 1905. A very level, thick, low-set calf of fine character, and with a great coat of hair, he should suit anyone wanting a herd-header of the first rank. No. 9, a roan Bruce Rosewood, by Prince of Fashion (imp.), shows fine character, has a strong top, straight lines, heaps of hair, and a handsome head. Village Pride, No. 9 in catalogue, is, perhaps, one of the most desirable in breeding and individuality, being of the favorite Marr Emma tripe, and his sire, Village Missie, is a son of the \$6,000 Missie 153rd, and of the Duthie-bred Village Champion (imp.), by Scottish Champion. Emma's Fashion, No. 11, is one of the same family, sired by Prince of Fashion (imp.), and his dam, by the Willis-bred Count Arthur, a Cruickshank Victoria of the first order. He is a good roan, one of the best bred in the sale and of choice type, with grand handling quality, and hair to burn. Flower Lad, a roan March calf of the Flower Girl family, for some time in the herd of Mr. Cruickshank, and sired by Missie Champion, is one of the right type, compact, strong-topped, thick-fleshed, and with a good head. King's Crest, No. 15, a Cruickshank Clipper, on his dam's side, and sired by Prince of Fashion (imp.), is of the same stamp and description as the last named. Orange Chief, No. 17, is a red, by Prince of Fashion (imp.), and of the favorite Cruickshank Orange Blossom tribe on his dam's side. He is very thick, straight, strong-backed, a grand handler, full of hair, and should please anyone. The one white bull in the offering is one of the very best, a Marr Goldie, by Prince of Fashion (imp.), and his dam, Imp. Goldie 46th, was bred by W. S. Marr, and sired by the Duthie-bred Golden Ray, by Scottish Archer. He has conformation, quality and character of the first rank, and should prove a very successful sire. These are but sample numbers of a superior lot of young bulls. The heifers are of equally desirable breeding and quality, a number of them show-yard material of the best class, representing such fine families as Mildred, Missie, Clipper, Mina, Sittyton Secret, Lovely, Nonpareil, Duchess of Gloster, Brawith Bud, Lancaster, Jealousy, Rosemary, etc. That the Pine Grove herd is strong in individual merit, as well as in breeding, is attested by its show-yard record, having won the first prize for both graded herd and young herd at the Dominion Exhibitions, at Toronto, 1903, and Halifax, 1906, and the grand championship at Toronto, 1906, for best Shorthorn bull, any age, with the grand

**BELL BROS.' SHORTHORNS AND SHROPSHIRE.**

"The Cedars" is the Christened name of the splendid stock farm of Bell Bros., breeders of Shorthorn cattle and Shropshire sheep. It lies in Simcoe Co., Ont., three miles west of Bradford, on the Toronto to Barrie branch of the G. T. R., and just now is the home of 33 head of Shorthorns and a nice, beautifully-covered flock of Shropshire sheep, of which there are for sale half a dozen ram lambs that are fit for flock headers, sired by a Miller-bred ram, the get of an imported Mansell-bred ram, and out of an imported Cooper-bred ewe. The Shorthorns are a big, well-fleshed lot in nice, thriving condition; several of them belong to the well and favorably known Stamford strain, the bulk of the others are the progeny of the daughters and granddaughters of that grand old cow, Imp. Louisa, topped by such well-bred Scotch bulls as: Imp. Hopeful; Brilliant 15824, a son of the 3,100-lb. bull, Imp. Mexico; Duke of Cedardale 19666, a Strathallan, and a son of Imp. Hopeful; Ronald 25326, a son of Imp. Kinellar Sort; Aberdeen Jock 24508, a son of Imp. Aberdeen; Heir at Law 34563, a Miss Ramaden, by Prince Arthur, an Isabella-bred bull, and the present stock bull, Queenston Archer 48898, a son of the great stock bull, Imp. Derby, and out of Imp. Veronica, by Brave Archer. Queenston Archer is a roan, four years old, weighs 2,300 lbs., and is one of the best proportioned bulls in the country—low-down, very thick, a powerful back, remarkably well steaked, well-sprung rib; in fact, a high-class show bull, and a very impressive sire, his get selling readily. Just now, there are only two young bulls on the farm, one a red, four months old, out of a daughter of Aberdeen Jock, that is a very heavy and persistent milker. This is the making of a bull of the right sort, as he is a thick, well-put-up youngster, covered with a wealth of hair that denotes a good doer. The other is considerably younger. The females on hand for sale are five heifers, one year old and under two; eleven heifers, one year old and under; two two-year-old heifers, and two three-year-old heifers, all the get of Queenston Archer and Heir at Law, with the exception of one, Gladys, Vol. 21, she being got by Imp. Gladiator, and a right good one she is, and due to calve shortly, by the stock bull. As might be expected in a bunch like this, some real good stuff can be picked out that, if properly fitted, could make things interesting in the large show-rings. Bell Bros. report the last year as the best they ever had in the Shorthorn business. Sales have been plentiful and satisfactory prices obtained. Their P. O. is Bradford, and they are absolutely reliable.

**BOOK REVIEW.**

Any book reviewed in this department may be ordered through this office.

**NEW BOOK ON ALFALFA.**

In view of the great interest deservedly being taken throughout Canada in alfalfa-growing, our readers generally, and particularly dairymen, will be pleased to learn that a new, enlarged and greatly-improved edition of F. D. Cobourn's "The Book of Alfalfa" has been issued by the Orange-Judd Co. It is a large, well-bound and well-printed volume of 336 pages, handsomely illustrated, dealing in a practical way with all phases of the subject, as the following outline of contents will indicate: History, Description, Varieties and Habits; Universality of Alfalfa; Yields and Comparisons with Other Crops; Seed and Seed Selection; Soil and Seeding; Cultivation; Harvesting; Storing; Pasturing and Soiling; Alfalfa as a Feed Stuff; Alfalfa in Beef-making; Alfalfa and the Dairy; Alfalfa for Swine; Alfalfa for Horses and Mules; Alfalfa for Sheep-raising; Alfalfa for Bees; Alfalfa for Poultry; Alfalfa for Food Preparation; Alfalfa for Town and City; Alfalfa for Crop Rotation; Nitro-Culture; Alfalfa as a Commercial Factor; The Enemies of Alfalfa; Difficulties and Discouragements; Alfalfa in the Orchard; Practical Experiences with Alfalfa. Copies of this valuable work may be ordered through

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**THE Greatest of Tonics**

# PSYCHINE

(Pronounced Si-KEEN.)

**FOR ALL THROAT AND LUNG TROUBLES**

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**TWENTY-FIVE YEARS' SUCCESSFUL RECORD**

**M**ONEY can buy advertising space, but it can't buy a quarter century's successful record of wonderful and almost miraculous cures of the most difficult and intricate cases of throat, lung and stomach troubles. Such is Psychine's record. Thousands of cases given up by leading doctors as hopeless and incurable have been quickly and permanently cured by Psychine. It is an infallible remedy for coughs, colds, bronchitis, pneumonia, consumption, indigestion, loss of appetite and all wasting diseases.

"My son had a terrible cough and was wasted to a shadow. Doctors said he could not live. He used Psychine, it cured him."—Mrs. J. Ranger, Brockville.

"After taking \$5.00 worth of Psychine my lungs are well and life is again worth living."—Mrs. I. Richards, Marriotta Cove, N.S.

"My lungs are now sound as a bell after using Psychine."—H. Robbins, Bridgeburg, Ont.

"Psychine saved my life."—A. Walden, 7 Cornwall St., Toronto.

**Psychine Never Fails Psychine has no Substitute**

AT ALL DEALERS, 50c and \$1.00 A BOTTLE

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## U. S. CREAM SEPARATOR

**STRONG AND DURABLE**

Used 15 Years  
Repairs 50 Cents

BLACKLICK, OHIO, Oct. 20, 1906.  
To whom it may concern:

I have used one of your No. 5 U. S. Cream Separators for the past 15 years and I have paid out only 50 cents for repairs in that time. I am using the machine every day and it is in good shape now. I would not have any other—only the U. S. Separator. I can cheerfully recommend the U. S. to all who want a good machine. SCOT RACHELL.

27 pictures with plain, easy-to-understand explanations in our new catalogue, make the construction and operation of the U. S. as plain as though the machine was before you. Let us send you a free copy. Just write: "Send Construction Catalogue No. 110". Write today. Don't buy a Cream Separator before you see this book.

**VERMONT FARM MACHINE COMPANY**  
Bellows Falls, Vt.

Eighteen distributing warehouses centrally located in the United States and Canada

Use Standard Fence,  
All No. 9, Hard, Steel Wire.

THE TIE THAT BINDS

**THE STANDARD WIRE FENCE CO.**

OF

**WOODSTOCK, LIMITED.**

WOODSTOCK, ONT.

Agents Wanted.

**QUESTIONS AND ANSWERS.**  
Veterinary.

**RINGWORM.**

I have a calf covered nearly all over its body with ringworm; have done everything for it that I knew, such as dosing it with sulphur, saltpetre, and washing with a sheep dip, to very little purpose. What would you advise?

**SUBSCRIBER.**

Ans.—Wash thoroughly with strong, warm soft-soap suds, using a scrubbing brush, then dress the affected parts daily with a solution of corrosive sublimate, forty grains to a quart of water, and keep blanketed. Remember that corrosive sublimate is a deadly poison. Ordinarily, ringworm yields to repeated dressings of a mixture of sulphur and lard, after softening the scale by a careful washing with warm soap suds.

**DEFECTIVE TEETH.**

Last winter my cow had soft lumps on each side of her jaw. An examination proved that these were caused by partially-masticated food between cheeks and teeth. If removed, they would soon reappear. When on grass, this did not occur; but now that she is again fed on dry food, the same condition exists.

**L. A.**

Ans.—This is caused by some abnormal condition of the teeth. The grass not requiring so much mastication, and, being more easily masticated, could be eaten without great difficulty; but with dry food it is different. Get your veterinarian to examine her mouth, and dress her teeth, and, if necessary, extract some. In the meantime, feed largely on soft food that requires little mastication.

**V.**

**INDIGESTION.**

Calf, two months old, fed four quarts of separator milk twice daily, and a little boiled flaxseed and hay, bloated very badly. I gave it salts, ginger and soda, which relieved it. Two days later, just after drinking its milk, bloated again, and I heated as before with the same results; but it still bloats after being fed.

**R. J. I.**

Ans.—This is indigestion, due to fermentation of the food in the rumen. Give sufficient Epsom salts to purge, say about 4 to 6 ounces, with 2 drams ginger. Add to the milk about one-quarter of its bulk of lime water, made by slacking a little lime in a pail, then filling pail with water, and thoroughly stirring it. Then allow it to stand, and the clear water on top is lime water. The quantity of lime to a given quantity of water is not material, as the water will dissolve only a certain quantity, and the undissolved lime will precipitate. It would be better to give new milk for a week or two to allow the stomach to regain tone, but whichever you use should contain the lime water.

**V.**

**Miscellaneous.**

**ALFALFA IN SIMCOE COUNTY.**

The best field on my farm (a field that never misses a crop) is a clay loam, naturally drained and facing the south and east. Would you advise seeding such a field to alfalfa?

**F. G. A.**

Ans.—Such a field in Southern Ontario would prove an excellent one for alfalfa, and should well repay seeding to that crop. Just what would be the chances of success in Simcoe Co., we would not say too positively. Perhaps someone in that district who has had experience will communicate it to this paper.

**CONDITION POWDER FOR HORSE.**

Give a first-class condition powder for horses going into winter quarters in poor condition.

**F. G. A.**

Ans.—We have more faith in oats, hay and roots than in drugs of any kind. However, if a condition powder is desired, it would perhaps be hard to improve on the following: Two ounces each of ferric sulphate, pulverized gentian, pulverized bay vomica, and citrate of soda. Mix, and give a tea-spoonful night and morning on ground oats or bran. Also give, two or three times a week, a feed of rolled oats, and to the regular grain ration add a little oil cake, which

**EXPRESS CHARGES ON FOWLS.**

I ordered a pair of fowls from Paris, Ont. When I received them, the weight was marked 18 pounds, and I was charged 70c. express. I also received a turkey from Crossland P. O., Phelpsston Station, in North Simcoe. The weight was 40 pounds, and I was charged \$1.60 express. These fowls were shipped to Consec Station, Central Ontario Railway, a distance of about 12 miles from Trenton, which is on the main line of the G. T. R. Could you tell me if I have been overcharged. Also, if I have, should I advise Railway Commission of such overcharge? If so, what is the address?

**E. C. W.**

Ans.—We would advise our correspondent to lay his case, with full particulars, before the Railway Commission, addressing the secretary, A. D. Cartright, Ottawa, Ont.

**ARTICHOKES FOR HOGS.**

I am thinking of sowing some artichokes in the spring for my hogs, and would like someone's opinion of it through your columns.

**C. B.**

Ans.—Jerusalem artichokes are recommended by many as an excellent feed for hogs, being suitable for rather light sandy soils. The tubers may be planted in late fall or early spring in rows, two or three feet apart, and spaced a foot or eighteen inches apart in the rows. In planting, cut the same as potatoes, one eye to a piece being considered sufficient, plant as you would potatoes, and cover about two inches deep. One firm of seedsmen claim that three bushels are sufficient to seed an acre. The crop, if planted early, should be ready to feed by the middle of September, and hogs are turned in to help themselves. Frost does not injure artichokes, and usually enough tubers are left in the ground to insure a crop next season. When it is desired to eradicate them, turn hogs on in the spring, and then sow the plot with turnips or some other hoed crop. Artichokes have a rather higher feeding value than potatoes, and hogs are very fond of them. Let us hear from readers who have had experience with this crop.

**MAINTAINING FAT STEERS—FROZEN TURNIPS.**

1. I have two-year-old steers that are fat now, and would like to beef them about the last of February. Would one bushel Swede turnips and good oat straw be sufficient feed, providing they are in a warm stable, and well attended to?

2. Is frozen turnips of any value for feeding cattle?

3. Are turnips better pulped for young cattle?

4. I have a pair of colts, a year and a half old. Can I winter them on oat straw and a gallon of oats each? Will they thrive as well next summer as if fed hay?

**R. J. C.**

Ans.—1. A good deal would depend upon what the steers had been fattened on. If they had been heavily fed on meal, and were then reduced suddenly to turnips and straw, we should expect them to go back; but if they have been brought to their present condition on a somewhat similar diet, they might be carried along more successfully on the ration indicated. We should suggest that any slackening of feed be made gradually and carefully. As the steers are still young, we would be inclined to feed so as to keep them going moderately, with a view to some increase in weight. Fat steers, on a mere maintenance ration, will soon eat off a good part of their heads. It is a case, however, where the feeder must use his judgment.

2. There is danger in feeding frozen turnips. They will, however, stand being frozen, and yet be safe for feeding, if the frost is drawn out of them by the earth, or even by artificial heat in a cellar. Turnips have been taken from the field in good feeding condition during a January thaw.

3. Not for cattle, which can "scoop" them readily; for calves, they are better pulped.

4. A yearling colt should winter fairly well on oat straw and a gallon of oats a day, but it will pay to substitute good, bright clover hay for half or two-thirds the proposed allowance of straw. If clover hay is not available, use timothy, and mix a couple of quarts of bran with the oats. In fact, some bran should certainly be used, if the roughage consist

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# Third Annual Auction Sale

OF

## Pine Grove and Plewlands

# SCOTCH SHORTHORNS

In Steam - heated Pavilion, Pine Grove Stock Farm, Rockland, Ont., on



Royal Favorite, Grand Champlon, Toronto, 1906.

43 Head Will Be Sold

Wednesday, Jan. 9th, 1907

All high-class young animals, the increase of the herd in the last year.

**21 Young Bulls, 22 Heifers.** The produce of the best Scotch blood obtainable. Rich breeding combined with robust constitution and approved type. Rockland is on the Canada Atlantic section of the G. T. R., 35 miles from Ottawa, and also on the C. P. R., Lochaber being the station on that road. Catalogues on application.

**W. C. EDWARDS & CO., ROCKLAND, ONT.**

Col. Geo. P. Bellows, Maryville, Mo., and Capt. T. E. Robson, Ilderton, Ont., Auctioneers.

**QUESTIONS AND ANSWERS.**  
Miscellaneous.

**WOLF TEETH IN COLT.**

Should wolf teeth in a two-year-old colt be removed, or would they not do any harm?  
G. B.

Ans.—Unless the teeth are manifestly causing some irritation, it is better not to bother with them.

**WHEN TO PRUNE EVERGREENS.**

When is the proper time to prune evergreen trees?  
T. G. S.

Ans.—In early spring. If, however, it is desired to keep down to a certain size, as, for instance, a hedge, then pruning had better be delayed till the middle of June, so that little growth is added during remainder of the year. Some prune twice, in early and in late spring.

**REGISTERING HOLSTEINS AND CLYDESDALES.**

1. Please tell me, through your columns, the number of crosses required for a Holstein calf in order to have a pure-bred animal? I have a heifer of four crosses of pure-bred Holstein bulls, and she is bred to her sire. Will the calf have five crosses?

2. Also, how many crosses are required in order to have a pure-bred Clydesdale foal—(1) mare, (2) horse?  
SUBSCRIBER.

Ans.—1. A calf with four crosses of pure-bred sires of the same breed is practically pure-bred, as it lacks only one-sixteenth of being so; but no number of crosses will entitle a calf to registration in the Holstein Herdbook, as the rules require that animals accepted for registry must trace to registered imported stock on the side of both sire and dam. A calf from a cow having four crosses of pure-bred bulls, of the same breed, the calf being the get of the sire of the dam, would have five crosses.

2. By the rules governing registration in the Canadian Clydesdale Studbook, stallions having five top crosses of recorded Clydesdale sires, with their dams on record, and mares having four similar top crosses, are accepted.

**WHITE GRUBS IN CORN.**

Mr. G. H. Caughill writes from East Elgin Co., Ont., that his corn this summer appeared to be badly stunted in parts of his field. About the time for cutting, some little pigs got in and rooted up some of the hills. Upon pulling up the corn to see what they were after, ten large white grubs about one and a quarter inches long, with reddish heads, were found. The question is asked whether these grubs will remain in the ground over winter, and attack the crop of next year. The insects enquired about are doubtless white grubs, the larvæ of the large brown June beetles, which may be seen flying about in numbers around lilac, willow and other bushes in June. These insects take two

years to pass through their grub state, during the whole of which time they remain in the ground, feeding on the roots of various plants. About August of the second year they form cells in the ground, change to a pupal condition in which they remain for about three weeks, and then change to the mature beetles. These remain in their cells beneath the ground until the following spring, when they work their way out, and appear in large numbers late in May and early in June. Eggs are laid at that time, and the grubs reach about the size described by Mr. Caughill at the end of the first season. I fear that if any crop liable to attack by these grubs, such as potatoes or other roots or grain, were sown on this field, there would be considerable risk of injury. As, however, Mr.

Caughill evidently has pigs available, he is in possession of one of the very best means of clearing land of these troublesome insects. Directly the corn was cut, pigs should have been turned in on this land, and they would soon have cleared it of grubs. Pigs are particularly fond of these insects, and there are many instances on record where they have done excellent work in rooting them out. Should there be open weather during this winter, some good may be done by plowing this land during the winter so as to break up the winter resting places of the grubs, but many of them will have burrowed down too deeply to be reached by the plow. In the spring, if these grubs are still found in the ground in the white larval form, it will be well to herd or

the roots of the growing crop next season. Fall plowing, done as late as possible, has often proved a very successful means of destroying white grubs, particularly if poultry or pigs can be given the run of the land, as both of these eat the white grubs with avidity.

JAMES FLETCHER,  
Dominion Entomologist.

**BUTTER WON'T COME.**

I have been churning a whole day and cannot get butter. Our cows are Jerseys, fed on cornstalks, hay, chop, no roots, very often oats. Get salt regularly. Cream is thick before churning. Have tried scalding the cream, but it seems no use; butter will not come. The cream is sour, but it seems to be foamy all through churning. It is also kept at churning temperature. Milk, when it stands three or four hours, seems to turn bitter. Cream is also bitter. Cows are not due to calve until March. Cows are kept clean, and get good care.  
A SUBSCRIBER.

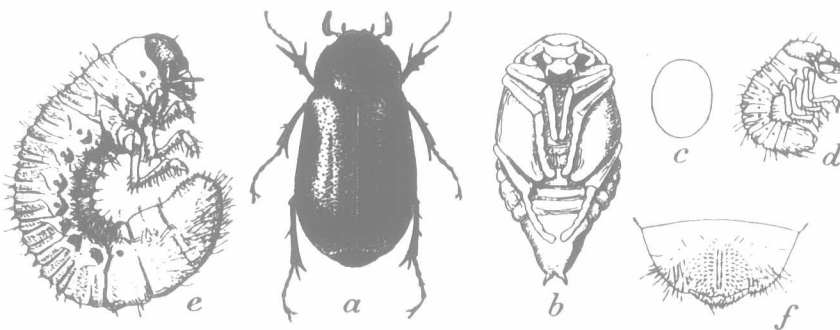
Ans.—Your troubles are due principally to the fact that your cows are going dry, and to the change from pasture to dry feed. Milk from strippers is more viscous than that from fresh cows, and the fat globules are smaller. We advise ripening the cream to a higher degree of acidity, skimming thicker cream, and churning at a higher temperature. At this season of the year, and with cows in the condition in which yours are, 70 per cent. is not too high.

**RAW-LEAF TOBACCO TARIFF.**

We are extensive growers of tobacco, and would like to know your opinion as to whether you think it likely that the import duty on raw leaf will be uplifted by the Government?

**"PRO BONO PUBLICO."**

Ans.—We understand that the new tariff regulations regarding imported tobacco leaf to be manufactured in Canada, remain as before. What the Government may or may not do in the future is a sealed book. Impending changes, as announced in the budget speech, are guarded with the utmost secrecy till the Finance Minister speaks in the House.



pen pigs on the infested field. There is no treatment of the soil by which these insects can be killed in the ground. Mr. A. A. Clement, of Brant Co., Ont., also writes asking if white grubs, which have been very destructive this year to his mangels and potatoes, will be likely to injure a crop of grain grown on the same land next year, and, further, whether plowing the land this fall would be of any use.

The above reply to Mr. Caughill answers most of the enquiry by Mr. Clement. The grain would be certainly injured if the grubs which injured his potatoes were in the first year of their growth, but if they were in the second year, having passed through one winter as grubs, they would have turned to beetles this autumn, and will not injure



## OBSTINATE FACE SORES

REFUSED TO CLOSE FOR 4 YEARS.

Zam-Buk Healed Them Inside Two Weeks.

Have you some eruption, or sore, or ulcer, or wound, on any part of your body which has hitherto refused to close, no matter how treated? If so, that is a case for Zam-Buk, the great herbal balm. The herbal saps and essences in this balm are so powerful that they can heal the worst cases of chronic sores, ulcers, blood poison and skin diseases.

Mrs. W. H. Taylor, of North Bay, Ont., says: "I had a scaly spot as big as a ten-cent piece on my face for four years, and hardly a night during that time went by but what I applied cold cream, or some ointment or other, but it would always be there. I recently applied Zam-Buk, and in about a week's time the spot had disappeared completely."

Mrs. S. J. Holden, of 343 West Hannah St., Hamilton, says: "My little girl had a running sore on her leg which defied all treatment. I applied Zam-Buk, and in about a week's time the wound was closed."

Mr. J. H. Hamilton, of Thornbury, says: "The first Zam-Buk I obtained was for a friend who had an obstinate sore on her temple. It had been treated once or twice by a doctor, and would heal up for a short time, but would break out again. Zam-Buk healed it permanently, and it shows no sign whatever of returning."

Zam-Buk is a sure cure for all skin diseases and injuries, such as cuts, burns, bruises, eczema, psoriasis, ulcers, scalp sores, cold sores, chapped hands, itch, rashes, tetter, face sores, etc. It is also an unequalled embrocation, and rubbed well on to parts affected cures rheumatism, sciatica, neuralgia, colds on chest, etc. All druggists and stores sell at 50c. a box, or may be obtained, post free, from Zam-Buk Co., Toronto, upon receipt of price. Six boxes for \$2.50.

You cannot possibly have a better Cocoa than

# EPPS'S

A delicious drink and a sustaining food. Fragrant, nutritious and economical. This excellent Cocoa maintains the system in robust health, and enables it to resist winter's extreme cold.

# COCOA

Sold by Grocers and Storekeepers in ½-lb. and ¼-lb. Tins.



## Ingleside Herefords.

First-prize herd at Toronto and London Exhibitions, 1906. For sale: Young bulls and females, all ages.

75 Head to Select From. High quality; low prices; easy terms. H. D. SMITH, HAMILTON, ONT.

## Save Your Money

BEFORE ORDERING YOUR YEAR'S SUPPLY of literature, write to The Times Agency, Stair Building, Toronto, for a FREE Specimen copy of THE TIMES WEEKLY EDITION, and full particulars of clubbing offers. Anything published supplied. It will SAVE you MONEY, TIME, and it reduces the risk of non-delivery to a minimum.

### GOSSIP.

#### MAPLE LEAF BERKSHIRES.

One of the leading Berkshire breeders of Ontario is introduced to the readers of "The Farmer's Advocate" in this issue, in the person of Mr. Joshua Lawrence, whose farm, Maple Leaf, lies in Oxford County, Ontario, five miles south-east of Woodstock. Mr. Lawrence is one of the most extensive Berkshire breeders in the country, having on hand about a dozen brood sows, nearly all of which are prizewinners, and belong to Gentry and Wood strains, the well-known American importers and breeders. They are also nearly all bred from imported stock. These bred to such noted stock boars as Imp. Polgate Doctor and King of the Castle, both Toronto winners, have placed the herd in the front rank among the very best in the country. For immediate sale are two seven-months-old boars, both sired by Polgate Doctor, and two eight-months-old sows, by the same sire. Both these sows are bred, also ten sows, three and a half months old, by King of the Castle. These are an exceptionally choice lot. Besides those mentioned are a number of others of both sexes, about three months old. Mr. Lawrence can also supply pairs not akin, by the above mentioned sires. Write him to Oxford Centre P. O. He is, we believe, strictly reliable.

#### THE DOHERTY AND JACOBS SALES.

The two dispersion sales of the Short-horn herds of Messrs. W. Doherty, of Clinton, and A. H. Jacobs, of Blyth, two near-by towns in Huron County, Ont., advertised to take place on January 15th and 16th, respectively, should claim the attention of breeders and farmers desiring to strengthen existing herds, or to establish herds on a good foundation. Both herds are headed by first-class imported Scotch-bred bulls. Mr. Doherty's stock bull, Pride of Scotland =45213= (imp.), is a massive, straight-lined, thick-fleshed, dark roan son of Clifton, a Cruickshank Clipper, by the Duthie-bred Prince of Fashion, by Scottish Archer, and his dam is a Kinellar Bessie, by Sittyton Sort, by Gondomar. Mr. Jacobs' stock bull is Broadhooks' Golden Fame =50018= (imp.), a smooth, straight, deep-ribbed and thick-fleshed son of the Duthie-bred Golden Fame, by Lord of Fame, out of Sittyton Gold Mint, and his dam was Roan Rose of the Cruickshank Broadhooks family, by the Duthie-bred Abbotsford 2nd, by British Leader, son of William of Orange, and his dam of the Avere family, which produced Field Marshal and Athabasca, among the most noted of Scottish sires. These extra good imported bulls, for both are show bulls of high rank, are included in the sale, and, having been used in the herds for two or three years, most of the young things are sired by them, and the females of breeding age are either in calf or have calves at foot by these excellent sires, which should prove an attractive feature of these sales. Included are a handsome pair of roan yearling heifers coming two in January, sired by Broadhooks Golden Fame (imp.), and out of Nonpareil 78th, of the favorite Cruickshank tribe of that name. Mr. Doherty's herd, judged by the breeding of the animals in the catalogue, should find ready buyers, as included in his offering are imported and home-bred representatives of such well known and esteemed Scotch families as the Kinellar Wimple, Stamford, Roselade, Jilt, Isabella, Mina and Claret; Cruickshank Nonpareil, Duchess of Gloster and Matchless, also the excellent imported cow, Winsome Beauty, a handsome and typical roan, a prizewinner in English and Scottish shows, bred by Messrs. Law, of Sanquhar, and sold at one of their sales for \$825, and two of her daughters, by imported sires, are also in the sale. Among the sires of the females in this catalogue are Village Spire, a Cruickshank Village bull, Doyal 100 (imp.), of the Vthan family, by the Kinellar bull, Royal James; Royal 100 (imp.), of the Roan Lady family, bred by W. S. Vear, Uppermill; Prince of Pine Grove, by Imp. Prince of Fashion, bred by Mr. Duthie; Broadhook's Golden Fame (imp.), and Scottish Peer (imp.).

Mr. Jacobs' herd is composed chiefly of

soundly-bred, Scotch-topped representatives of good-milking families of the useful dual-purpose class, such as are needed just now by the farmers of this country for the improvement of the general class of our cattle, and these should find ready purchasers, at fair prices, considering that all of breeding age have been bred to the grand imported bull for which Mr. Jacobs paid \$930, and which is considered by competent judges one of the best bulls of the breed in the Dominion. Parties interested will do well to apply for catalogue, and attend these two sales, which are only about twelve miles apart, and may be taken in at one trip.

We call attention of stock-feeders to an advertisement in this issue of Woodstock Cereal Co., Limited, Woodstock, Ont., in which they announce that they will supply pea-meal in car lots.

#### WHERE IS THE PROFIT IN THIS?

Of the entire receipts of cattle on the Montreal market the week before last, our commercial correspondent at that point estimated that the bulk consisted of common stock, which sold between one cent and two or two and a half cents a pound. From the producer's standpoint, such animals are nothing but ruinously expensive machinery for the conversion of food products into manure. The less such stock is kept on our farms the better. There is still great need in Canada for better breeding and more feed.

#### NELSON WAGG'S CLYDESDALES.

Dropping off the C. P. R. at Claremont Station, a few days ago, a Farmer's Advocate representative had the pleasure of a call on Mr. Nelson Wagg, of that village, the well-known expert Clydesdale judge, and had a look through his splendid stables, in which, at the present time, are about a dozen high-class imported Clydesdale fillies, all bred and supposed to be in foal; a big, quality lot, exceptionally well bred, as the following brief description of them will show: Duchess, Vol. 27, by Royal Peer, dam by McNeil, is a brown four-year-old, weighing 1,800 lbs., built on true Clydesdale lines, has lots of quality, and moves smooth and true, is supposed to be in foal to Imp. Baron Hamilton. Sovereign Queen, Vol. 29, is an exceptionally richly-bred mare, being sired by Baron Romeo, by Baron's Pride, dam by Prince of Clay, following which are four other registered dams. She is a brown two-year-old, combining size and quality with style and action. She was bred to Moncrieffe Marquis in Scotland. Ranche Beauty, Vol. 29, is another two-year-old bay, got by Prince Shapely, dam by Flashwood's Best, and was bred to Baron Hood. She is another big, quality filly, full of Clyde character, a rare good filly. Maggie of Greenoaks, Vol. 29, is another bay two-year-old, sired by Lothian John, dam by Belvidere, and bred to Prince of Clay, a strong, powerfully-put-up filly, the making of a big, good kind, and a splendid mover. Yarrow Queen, Vol. 29, bay, two years old, got by Baron's Pride, dam by Earl of Glasnick, bred to Silver Crest, is a high-class show mare, with size, style, quality and action. Rosie Steel, Vol. 29, a brown two-year-old, is by St. Pancras, dam by Barrister. She was bred to Prince of Clay. She is a mighty nifty, stylish-topped filly, on the best of underpinning, an all-around cracker. Nellie Cardross 7067 is a brown two-year-old Canadian-bred filly, sired by Imp. Cardross, dam by MacInnis (imp.), grandam imported by Sir Hildebrand, great-grandam by Top Gallant, breeding rich enough surely. She was bred to Imp. Border Duke, and is a strong, well-coupled filly on a grand set of legs. Jessie Standard 9002, also Canadian bred, is a bay eight-year-old, by The Royal Standard (imp.), dam by Queen's Own (imp.), grandam by Imp. Maclean. She is one of the very thick kind, smooth and even, and is a grand breeder. She has a rare good horse colt at foot, by Imp. Lord MacClure, and is again in foal to him. Baron Cedric 5800 is a Canadian-bred one-year-old stallion bay, by Imp. Baron Primrose, dam by Imp. Reg. change and Sir William Williams. He is the making of something new, with size and quality, and is a real beauty. These are a few of the animals in the

## Disease Born of Carelessness

BECAUSE POISONOUS IMPURITIES ARE LEFT IN THE BLOOD WHICH CAN BE REMOVED BY THE USE OF

## DR. CHASE'S KIDNEY-LIVER PILLS

Disease results in most cases from the presence of poisonous waste matter in the body, and may, therefore, be said to arise from ignorance or carelessness.

Bilious spells, sick headache, attacks of indigestion, kidney pains and backache—such are the indications of failure on the part of the liver to remove the poisonous waste matter as rapidly as it accumulates.

By the use of Dr. Chase's Kidney-Liver Pills, the situation is promptly relieved, because liver, kidney and bowels are set in vigorous action, and the filtering and excretory system thoroughly cleansed and strengthened.

Neglect to afford assistance at such a time is to invite the attack of such ailments as Bright's disease, dropsy, rheumatism or appendicitis.

Mr. John Wilson, 518 Esplanade Ave., Montreal, Que., writes: "Last February I was taken sick and had to have the doctor, who said that my ailment was a disordered liver. A few weeks after completing this treatment I began to notice symptoms of kidney disease. The urine took on a reddish appearance, and continued to get worse until there were brick-dust deposits, and then I knew that the kidneys were seriously affected, and that I was threatened with Bright's disease."

"I obtained some of Dr. Chase's Kidney-Liver Pills, and, as a result of this treatment, was completely cured. My water became a natural color, and is still so. The cure was thorough and lasting."

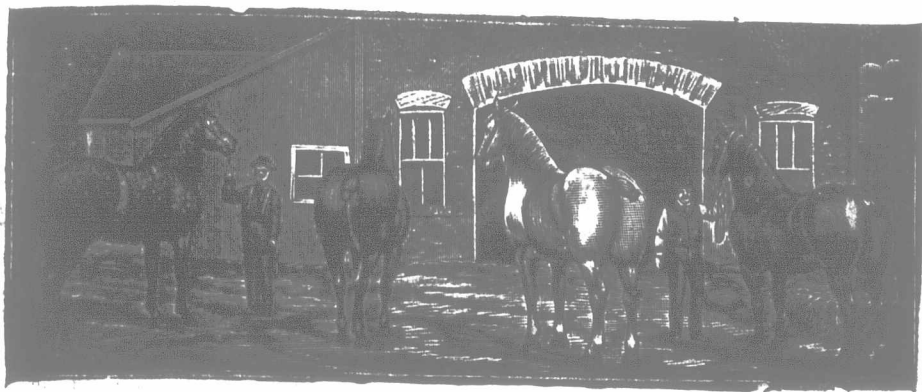
By using Dr. Chase's Kidney-Liver Pills, one pill a dose at bedtime, as often as is necessary to keep the bowels in regular healthful action, you insure yourself against kidney disease, and the subsequent suffering from Bright's disease, dropsy, apoplexy or other equally dreaded ailments. Dr. Chase's Kidney-Liver Pills, 25 cents a box, at all dealers, or Edmanston, Bates & Co., Toronto.

**Learn a Trade—Plumbing, Bricklaying, Plastering.** These trades pay \$4.00 to \$7 per day. We teach these trades by actual practice in about three months. Positions secured. Write for free book of instruction. COYNE'S TRADE SCHOOL, 840-848 N. Ashland Ave., Chicago.

### GOSSIP.

#### M. H. PARLEE'S AYRSHIRE SALE.

The auction sale of the herd of Ayrshire cattle belonging to M. H. Parlee, Sussex, New Brunswick, which took place on December 6th, was well attended by buyers from his own Province, as well as from Nova Scotia, Quebec, and New York State, the bidding being brisk, and the prices fairly satisfactory. The highest price was \$300 for the bull, Lord Dudley, purchased by Geo. W. Ballou, of Middletown, N. Y., who also took Daisy of Spruce Grove at \$114. Netherhall Nobleman brought \$250, being secured by E. A. Schodfeld, Hampton, N. B., who also bought Snowdrift at \$148, Bessie 7th of Auchenbrain at \$150, White Rose of Kelso at \$175, Bonnie Lass of Brookhill at \$125, Anagie at \$145, Jessie of Spruce Grove at \$120, and others at \$100 to \$105 each, he being the largest buyer at the sale. Taylor Bros., of Antigonish, N. S., took Bessie 14th of Auchenbrain at \$100, and a number of young things were secured by local buyers at moderate prices, which should be good investments, considering the reputation of the herd and the prosperous outlook of the dairy business in these

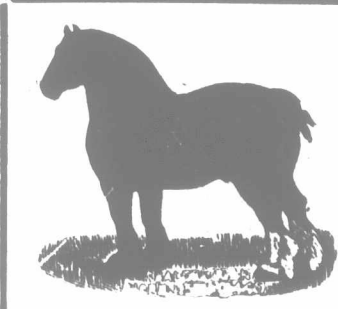


**30 PERCHERONS**

Also Shires, Hackneys and Clydes and 12 Percheron Mares (5, 3 and 1 year old) have just arrived with our new importation from Scotland, England and France, of high-class stallions and mares. Many of them prizewinners in their native lands. Bred by the best breeders. Percherons, blacks and grays, weighing 1,600 to 2,000 pounds. Shires at two years old weighing 1,700 pounds. Clydes, bays and blacks, 4 and 5 years old, weighing 1,800 to 2,000 pounds, bred by the best in Scotland. Our Hackneys are bays and chestnuts, combining size, quality and breeding that cannot be beaten. These horses can be seen at Toronto and London fairs, and all for sale at reasonable prices.

**HAMILTON & HAWTHORNE, Simcoe, Ont.**

83 miles south-west of Toronto on the G. T. R.



**IMP. CLYDESDALES & HACKNEYS**

Stallions and fillies of both breeds, representing the best blood of England and Scotland, combining size and quality and faultless action. If in want of something exceptionally choice, come and see me. You will not be disappointed. Prices right.

**DUGALD ROSS, Streetsville, Ont.**  
Write for catalogue.



**GRAHAM BROS.**

"Gairnbrogie," CLAREMONT,  
IMPORTERS OF  
HACKNEYS and CLYDESDALES

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



**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 4482.

**GRAHAM & RENFREW, BEDFORD PARK, ONT.**

**DUNROBIN STOCK FARM**

BREEDERS OF

**CLYDESDALES, SHORTHORNS and YORKSHIRES**

Besides our high-class Clydesdale fillies we are offering some well-bred SHORTHORN HEIFERS at reasonable money for a quick turnover.

**DONALD GUNN & SON, BEAVERTON P. O. & STN.**  
Farm Three-quarters of a Mile from Station.

**SMITH & RICHARDSON,  
COLUMBUS, ONT.,**

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

Long-distance Phone Myrtle Station, C. P. R.  
Brooklin or Oshawa, G. T. R.

**WM. COLQUHOUN, Mitchell, Ont.**

I have on hand for sale

**10 Clydesdale Stallions**

Lately imported, from 2 to 8 years of age. Carrying Scotland's richest blood, noted winners, noted sires; weighing a ton and over, with style, quality and true action. Come and see them.

**W. C. KIDD, LISTOWEL, ONT.**

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

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

**QUESTIONS AND ANSWERS.  
Miscellaneous.**

**CEMENT FLOORS—BREED OF COWS—FALL OR SPRING PLOWING, ETC.**

1. Are cement floors suitable for dairy cows and horses to stand upon? How would they answer for pigsty?
2. Which breed would you advise a man to go into who sends milk to a creamery, Holstein or Guernsey?
3. Are potatoes good feed for dairy cows?
4. Give relative feeding value of turnips and sugar beets, considering cost of producing.
5. Give address of some grower of alfalfa, who could supply first-class seed.
6. Which method do practical farmers prefer, fall or spring plowing? How would they advise applying manure, before or after plowing? H. I. L.

Ans.—1. No horse should be kept standing upon cement, unless it is deeply bedded with straw. The cow will endure it rather better, but she, too, is better on wood. There is a certain amount of danger of stiffness and udder trouble when cows are over a cold, hard substance like cement. The objection may be overcome by laying boards or plank over the cement platform. This has been done with good satisfaction in the dairy stable of the Ontario Agricultural College. Some dairymen, in building their stables, leave earth under the cows' front feet. A cement floor is desirable for a pigpen, on account of being watertight, but the pen should be kept bedded, if possible, and, in any case, should have a raised plank sleeping place.

2. You will have to decide this question for yourself. We have our own opinion, but it is only our opinion after all, and we do not feel free to assert it dogmatically, though our columns are open to reasonable argument by the champions of both breeds. We may fairly state, however, that the large number of Holsteins in Canada is a point in favor of this breed, as it facilitates the selection of foundation stock and the subsequent purchase of sires.

3. Potatoes are not to be recommended as a regular feed for dairy cows, though an occasional mess is all right to take the place of meal, if the cow shows a tendency to go off her feed.

4. Jordan gives the following comparison:

	Carbo-	Protein.	hydrates.	Fat.
Sugar beets.....	1.8	9.8	.1	
Mangels.....	1.4	5.5	.2	
Turnips.....	1.1	6.2	.2	

From these figures, sugar beets are made out to be about 50 per cent. better than turnips. The modern stock sugar beets, however, partake more nearly of the nature of mangels, and are perhaps not so very much better than turnips. As between them and turnips, or between mangels and turnips, the advantage is rather in favor of beets or mangels, both these carrying a somewhat higher percentage of protein than turnips. They have also the further advantage of being free from suspicion on the score of tainting the milk. In our opinion, a man situated in a locality where mangels and sugar beets do well will find them rather the more economical feed, and will earn the approbation of the creameryman or cheesemaker to boot.

5. We do not know any Canadian alfalfa-grower who makes a business of producing seed. Most of our seed is imported. Apply to leading firms of seedsmen.

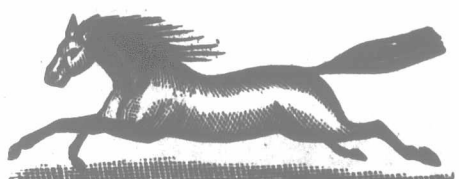
6. Except for corn, and, perhaps, peas, fall plowing is advisable, as it enables seeding to be done earlier in spring, and facilitates the preparation of a seed-bed; besides, the fall-plowed field will hold moisture better in the ensuing summer. For corn planted on sod, spring plowing is better, as the sward prevents washing and leaching in fall and spring, and produces an extra growth in spring to be plowed under as manure for the corn. As to manuring, if you have the manure on hand in the fall, spread it and plow under. If you have not, plow, and then top dress afterwards. As a rule, it is well to get the manure on the land as soon as possible.

**Lump Jaw**

The first remedy to cure Lump Jaw was Fleming's Lump Jaw Cure and it remains today the standard treatment, with years of success back of it, known to be a cure and guaranteed to cure. Don't experiment with substitutes or imitations. Use it, no matter how old or bad the case or what else you may have tried—your money back if Fleming's Lump Jaw Cure ever fails. Our fair plan of selling, together with exhaustive information on Lump Jaw and its treatment, is given in Fleming's Vest-Pocket Veterinary Adviser. Most complete veterinary book ever printed to be given away. Durably bound, indexed and illustrated. Write us for a free copy. FLEMING BROS., Chemists, 45 Church Street, Toronto, Ontario

**The Repository**

BURNS & SHEPPARD, Props.



Cor. Simcoe and Nelson Sts., Toronto

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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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We breed the very best and soundest, which from birth are kept in their natural condition, neither forcing nor overfeeding for showing purposes. Canadian buyers visiting England are invited to call and see what we have. No fancy prices, and all delivered free Liverpool landing stage. Correspondence invited. om

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Holdenby, Northampton, England

**ABSORBINE**

Cures Strained Puffy Ankles, Lymphangitis, Bruises and Swellings, Lameness and Ailments Quickly without Blistering, removing the hair, or laying the horse up. Pleasant to use. \$2.00 per bottle, delivered with full directions. Book 5-C, free.

ABSORBINE, JR., for mankind, \$1.00 Bottle. Cures Strains, Gout, Varicose Veins, Varicocoele, Hydrocele, Prostatitis, kills pain.

W. F. Young, P. D. F., 75 Northmouth St., Springfield, Mass. Canadian Agents Lyman Sons & Co. Montreal.

**BAWDEN & McDONNELL,  
Exeter, Ont.**

IMPORTERS OF

**Clydesdale AND Shire Stallions**

Are at present on a purchasing tour through England and Scotland. They return about Dec. 15th, 1906, and will bring with them some carefully-selected and high-classed specimens. This firm import only first-class horses, and sell at right prices. Inspection by intending purchasers is invited. Their arrival will be announced in the ADVOCATE.

**Imp. Clydesdale Fillies!**

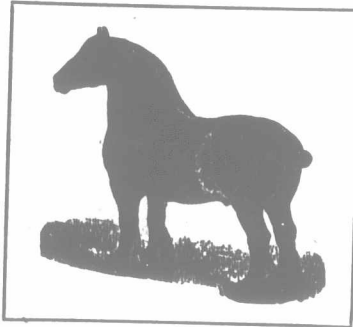
Have now on hand about a dozen, nearly all imported. A high-class lot and very richly bred. Combine size and quality, and all in foal. Also one-year-old stallion. Write me, or come and see the lot. Nelson Wagg, Claremont P. O. & Sta.

# IMPORTED CLYDESDALES

By Auction

45 Fillies from 1 to 5 years of age.  
2 Stallions, 2 and 3 years.

At the farm, Lot 2, five miles west of G.T.R., and 2 miles Sta., C.N.R., and Ridges, on Yonge Conveyances will be at 11 a.m. on morning Gormley and Stouffville trains.



Con. 5, Whitechurch, Stouffville Station, east of Gormley, 5 miles from Oak St., per electric cars, at Oak Ridges Hotel of sale, and at ville stations for

The property of MR. GEO. A. BRODIE, Bethesda P.O.

ON  
**TUESDAY, JAN. 8th, 1907**

These fillies represent the richest blood in Scotland, they are large, in good condition, combine size, quality, smoothness and nice true action. A great many of them are in foal. There are several well-matched pairs. The "Scottish Farmer" says they are the best lot that left Scotland this year. The stallions are exceptionally choice.

TERMS: Cash, unless arrangements are made before sale. Catalogues.

CAPT. T. E. ROBSON, Iderton, N. E. SMITH, Stouffville, Auctioneers.



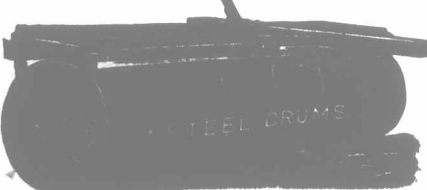
## Tudhope Sleighs

Over half a century's experience goes in every Tudhope Sleigh. Those at the head of the great Tudhope Works have been brought up in the business and "know how."

Every Tudhope Sleigh is guaranteed to be free of any imperfection in material or workmanship. And this guarantee is backed by a Canadian house established in 1855.

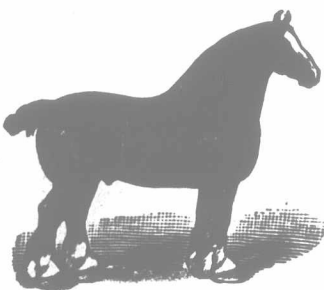
**TUDHOPE No. 43**  
Two beams Democrat Bobs. Body 7 feet 5 inches long. Supplied with one or two seats, pole or shaft, as desired. A splendid family sleigh—excellent for general use. Let us send you a free copy of the Tudhope Sleigh Book, THE TUDHOPE CARRIAGE CO., Ltd. - ORILLIA, Ont.

## THE BISSELL STEEL ROLLER



With Three Drums and Strong Rigid Frame. Some improvements are: Heavy Steel Axle, Thick Heavy Steel Plates, Drums Riveted up to stand any strain, Roller Bearings. Runs like a bird. Full particulars free by mail, or ask your dealer. None genuine without the name "BISSELL." Look out for it. Address

T. E. BISSELL, ELORA, ONT.  
Write for Booklet 'W'



## Clydesdales and Hackneys

SECOND CONSIGNMENT JUST ARRIVED.

Dalgety Bros. have at their stables, London, Ont., choice selection of the above. If you want a good one, come and see them.

JAMES DALGETY, Glencoe, Ont.

We have a second consignment of choice big Clyde fillies to land about end of December.

## Imported Clydesdale Stallions and Fillies

My new importation comprises 3 stallions, two 2 years old and one 1 year old, by Everlasting, Baron Buchylvic and Ascott, and 5 fillies, from 1 to 4 years old, by Baron's Pride, Elator, Favorite's Heir and Ascott. They are a high-class lot, as good as ever crossed the water. Come and see them. All are for sale at living prices.

A. AITCHISON, Guelph P.O. and Sta.

### QUESTIONS AND ANSWERS. Miscellaneous.

#### MALE BIRD WITH LAYING HENS—SKIM MILK FOR EGGS.

1. How many hens will a house 20 x 11½ feet hold?
2. Do you advise feeding skim milk to laying hens?
3. Does having a rooster among hens make any difference to the number of eggs?
4. Do you advise using poultry food to start hens laying?

SUBSCRIBER'S SON.

Ans.—1. Such a house will accommodate 38, more or less. The number depends on the breed, scratching room outside, etc.

2. Skim milk is good at all times.
3. Not at all.
4. Not if hens are healthy.

#### BREEDING OF WARLOCK.

Is there a stallion known as Warlock registered in the English Hackney Studbook? If so, give pedigree. The horse referred to was American-bred, and, if registered, registration would have been in an early volume, about 1885-1890.

E. W. C.

Ans.—Warlock, Platt's, 1414, English Hackney Studbook, bred in Kentucky, foaled in 1880, sire Belmont, by Rysdyk's Hamiltonian, dam Waterwitch, by Pilot Junior, grandam Fanny, by Kinghead's St. Lawrence, great-grandam Brenda (said to have been Thoroughbred). Waterwitch, his dam, is full sister to Maud S., 2.S. Harold, the sire of Maud S., was by Pilot Junior, who was the sire of Waterwitch. Warlock's time was 2.14, untrained.

#### OBJECTIONABLE USE OF ROAD-ALLOWANCE.

1. Is there a law to prevent the public from using the side of road, between road ditch and my fence, not only cutting up all the grass, but also filling in the water runs and road ditch?
2. What steps would you advise me taking to stop the nuisance, as they are spoiling my front?
3. Am I justified in putting posts between ditch and fence to prevent them coming on side, and, if posts are pulled out, could I prosecute any persons pulling them out? OLD SUBSCRIBER—Ontario.

Ans.—1. There may be a by-law of your township to that effect.

2. You should see the clerk of the municipality, and have him show you such by-law, if any. The by-law itself would indicate the suitable steps to be taken. If no by-law has yet been passed, you should get some councillor to take the matter up, and arrange for the necessary municipal legislation on the subject, there being ample authority for it to be found in the Consolidated Municipal Act, 1903.

3. No.

#### CATTLE KILLED BY TRAIN.

A farmer's cattle, pasturing all the time by the track, through the railroad-crossing gate being open, got on the track, and one animal was killed by the train. Neither the farmer nor the farm hands had been across the track from Wednesday morning till the accident happened, on Sunday evening. There was no other way by which the cattle could get on the track except by the gate being open, and the section men go by this gate twice a day, Sundays included. The farmer saw the cattle in the field in the morning, and did not know of them getting out until the section boss told him in the evening of the animal being killed. The farmer had been using the gate, on account of the track running through his farm, continuously for some time, but had left it closed on Wednesday morning in the usual way. Farmer thinks that staple had been out, but the section boss says that he found the gate open, but will not admit that the staple was out; but the farmer can prove that the staple was changed from the last time he shut the gate till then. Who is responsible for the railroad-crossing gate, the farmer or the company, and who will have to bear the loss of the animal? H. S.—Ontario.

Ans.—As the law stands at present, you think you would have a good chance of success in an action for damages against the railway company. But see a solicitor about the matter without delay.

## HAD SLUGGISH LIVER AND INDIGESTION

### BILEANS EFFECTED A COMPLETE CURE.

The liver rules the body. Bileans rule the liver. "A sluggish liver in my case led to constipation and indigestion," says Mrs. Frances Greene, of Earl St., Kingston, Ont. "I felt dull and sleepy, had no energy whatever for work, and every now and again I had a bad attack of biliousness. The food I ate seemed to lie heavy on my stomach and did me no good. I had wind and cramps in the stomach and bowels from the food decomposing. The constipation was so bad that my bowels had to be forced at each passage. All kinds of medicines I tried, but nothing did me any lasting good until I got Bileans. I have never found anything to equal them!"

"They soon began to do me good, and, in the end, cured me. Since using them I feel like a different woman. I am bright and buoyant in spirits, not dull and sleepy as I used to be. I have got my energy and activity back, and, in fact, all my ailments have yielded to Bileans."

Bileans are a purely herbal remedy, and operate gently on liver and stomach. Headache, constipation, biliousness, piles, pains in the chest and back, wind pains and dizziness—all these symptoms arise really from derangements of liver and stomach, so that by correcting the root cause of these troubles, Bileans speedily end them all. This is surely better than taking powders for headache, hot drinks for wind pains, and dealing with each symptom piecemeal? All druggists and stores sell Bileans at 50c. per box, or obtainable from the Bilean Co., Toronto, upon receipt of price. Six boxes for \$2.50. Write for free sample, sending a one-cent stamp.

## Clydesdales and Percherons

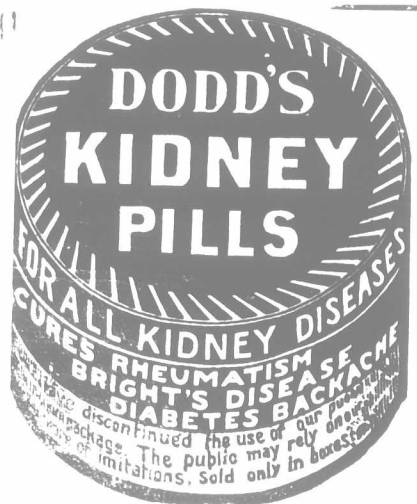
I have two Clyde stallions, by Prince Thomas and Baron a Pride, 3 and 5 years of age, a big flashy quality pair, and seven Percherons, 2 and 3 years of age. Nothing better ever imported in the country. Will be sold on a small profit. Come and see them.

T. D. ELLIOT, Bolton P.O. and Station, C.P.R.

**DR. MCGAHEY'S HEAVE CURE**  
for Broken-winded Horses.  
The only medicine in the world that will stop heaves in three days, but for a permanent cure it requires from one-half to one bottle used according to directions. Price, \$1.50 per bottle. The Dr. McGahey Medicine Co., Kemptville, Ontario.

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

A well-known bishop was taking his customary stroll through the park the other morning. He happened to sit down on one of the benches there. Now, the bishop is a very great man. His weight proved too much for the bench, which collapsed, spilling him on the ground. About this time a little girl, rolling a hoop along, saw the reverend gentleman prostrate and offered her assistance. "But my little girl," said the bishop, "do you think you could help such a great heavy man to his feet?" "Oh yes," replied the little girl, "I've helped grandpa lots of times when he's been even drunker than you are."



CURES ALL KIDNEY DISEASES  
BRIGHT'S DISEASE  
DIABETES BACKACHE

# THREE TRYING TIMES IN A WOMAN'S LIFE

There are three periods of a woman's life when she is in need of the heart strengthening, nerve toning, blood enriching action of

## MILBURN'S HEART AND NERVE PILLS

The first of these is when the young girl is entering the portals of womanhood. At this time she is very often pale, weak and nervous, and unless her health is built up and her system strengthened she may fall a prey to consumption or be a weak woman for life.

The second period is motherhood. The strain on the system is great and the exhausted nerve force and depleted blood require replenishing. Milburn's Heart and Nerve Pills supply the elements needed to do this.

The third period is "change of life" and this is the period when she is most liable to heart and nerve troubles.

A tremendous change is taking place in the system, and it is at this time many chronic diseases manifest themselves. Fortify the heart and nerve system by the use of Milburn's Heart and Nerve Pills and thus tide over this dangerous period. Mrs. James King, Cornwall, Ont., writes: "I have been troubled very much with heart trouble—the cause being to a great extent due to 'change of life.' I have been taking Milburn's Heart and Nerve Pills for some time, and mean to continue doing so, for I can truthfully say they are the best remedy I have ever used for building up the system. You are at liberty to use this statement for the benefit of other sufferers."

Price 50 cents per box, three boxes for \$1.25, all dealers, or The T. Milburn Co., Limited, Toronto, Ont.

## BROXWOOD HEREFORDS.

A few choice bull calves from my imported stock.

R. J. PENHALL, NOBER P. O., ONT.

**FOREST VIEW FARM HEREFORDS**  
Four bulls from 8 to 19 months old; praiseworthy and from praiseworthy stock. Several heifers bred on the same lines; choice individuals for sale  
**JOHN A. GOVENLOOK,**  
Forest Sts. 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. LOVERING, Coldwater P.O. and Sta.**

PURE SCOTCH

## SHORTHORNS

Offering for December and January:  
Imp. Scottish Pride = 36106 =  
3 yearling bulls from imp. cows.  
12 young bulls from 8 to 14 months, also from imp. cows.  
10 imp. cows with calves at foot or safe in calf.  
10 home-bred cows with calves at foot or in calf.  
25 heifer calves, yearlings and 2-year olds.  
20 Shropshire ewes (wed).  
2 imp. Yorkshire sows, due to farrow in March.  
7 boars and 10 sows, 4 and 5 months old.  
Catalogues on application.  
Our farms are 1 and 1 1/2 miles from Burlington Junction, G.T.R.  
Long-distance telephone in residence.

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

**SHORTHORNS.**  
We have for sale a 12-months old May flower bull by Derby Imp. He was first prize winner at O.S. this fall in a strong class. Also several choice heifers of the highest breeding for sale cheap. **W. J. Shean & Son, Box 856 Owen Sound Ontario.**

## "GLENORO"

**Shorthorns and Lincolns**  
Imp. Marr Roan Lady, Missies, Broadhocks, Ramsdens, and Urys. Choice individuals winners at Canada's leading fairs. One hundred head of grand Dudding bred Lincolns. Unsurpassed for size, quality and fleece. Long-distance phone.  
**A. D. McGugan, Rodney, Ont.**  
Glenoro Stock Farm.

**Oak Grove Shorthorns**—My present offerings are two bull calves, one heifer calf from imp. cows got by Nonpareil Duke (Imp.). They are a good lot. Prices right to suit the times.  
**W. J. 182 AC, Harwood, Ont.**

### QUESTIONS AND ANSWERS. Veterinary.

#### PARALYSIS IN SOWS.

G. R. wishes to know the cause and treatment of a disease among pigs: Sows become paralyzed in hind quarters all at once and refuse to eat; are fed on chop and whey.

Ans.—Paralysis in young pigs is generally caused by overfeeding and lack of exercise. It occurs sometimes in sows that are nursing a litter of pigs, and are run down in condition. As soon as noticed ailing, the hog should be given a pen by itself, and be fed a light, sloppy diet. To prevent constipation, castor oil should be given. The most useful drug for nerve tonic is tincture of nuxvomica. From five to fifteen drops should be given two or three times a day. Do not force the hog to walk, as this is apt to retard recovery.

#### PROTRUSION OF VAGINA.

I have a cow that calved on the 20th of January last. I bred her again, April 6th, and she has not come around since; but in June something began to protrude from her vulva, and has since been coming out, until it is about the size of a goose egg, and has a very foul smell. The cow is in unthrifty condition. What is the matter with her, and what can I do for it? C. R.

Ans.—In some cases, when a cow is forward in calf, the lining of the vagina protrudes, especially when the animal is lying down. In such cases, parturition generally takes place without any trouble, and there is no after ailment. It is well, however, to bed the stall so that the hind parts are higher than the front, and to wash the protruding part with a weak solution of carbolic acid, or of one of the sheep dips. This trouble, however, generally goes with thrifty condition, and as this cow is unthrifty, her trouble may be due to a tumor or other growth, in which case an examination and treatment by a veterinarian may be necessary.

#### SKIN DISEASE.

Horse suffered from indigestion a month ago. About ten days ago, he began to perspire, and small lumps appeared over the body, and in a few days the hair began to fall out, and he still perspires very freely, and takes chills.

J. S.  
Ans.—This is a skin disease, the cause of which is hard to give. I do not think the attack of indigestion has any connection with the disease. It is probable you will have to nurse him all winter, and that the hair will not grow much until spring. At least, this is the usual course, but there are exceptions. It will not be safe to expose him to cold or wind. He must be kept in a comfortable place, and warmly clothed. It will be better to clip what hair is left on the body, and put on plenty of blankets. Make a solution of corrosive sublimate, 15 grains to a quart of water. Heat a couple of quarts of this to about 120 degrees Fahr., and wash the body well with it once every second day until itchiness and excessive perspiration ceases. Be sure and exclude drafts; rub well, and then blanket warmly after dressing. Give, internally, 1 ounce Fowler's solution of arsenic twice daily every alternate week for six weeks.

#### Miscellaneous.

##### PULLETS' EGGS FOR HATCHING.

1. Will pullets that were hatched about the middle of May do to supply eggs for an incubator next April?  
2. Are the rose-comb or single-comb Buff Orpingtons the best? How many strains are there, and which strain is the best? Is it a good thing to cross one strain on another?  
3. When fowl get milk to drink, do they need water too? J. A. P.  
Ans.—1. Certainly. For hatching purposes, eggs from year-old fowls are preferred.  
2. The single-comb Buff Orpingtons being the original strain, it may be easier to get them true to type; but the rose-comb variety will be less liable to suffer from frozen comb. As to strains, they are like fashions in dress, always being developed. Cross-breeding, except in the hands of experts, is unwise.  
3. Milk is good at all times, but does not wholly take the place of water.

#### CELERY SALAD.

Give a recipe, through the columns of your valuable paper, for making celery salad. A. S.

Ans.—Celery is never better than simply served raw, with salt. If you choose, you may fill the smaller stalks with cream cheese. A very good salad is made by chopping together tart apples, celery and walnuts. Mix the whole with salad dressing, recipes for which have frequently appeared in "Ingle Nook" and "About the House."

#### GROUND PHOSPHATE ROCK.

Where can ground phosphate rock be bought, and will someone give their experience of using it in stables to absorb the liquid and prevent the escape of ammonia? We cannot see anyone advertising it for sale in the columns of "The Farmer's Advocate." Ontario. SUBSCRIBER.

Ans.—Advertisers please take note. Subscribers are invited to send us their experience with various materials used as stable absorbents.

#### PIGS EATING STRAW.

I have some pigs which eat straw after their meal like an ox. I feed ground barley and peas. What is the cause? J. P. S.

Ans.—It is doubtless owing to a craving of the stomach for some mineral element not present in their feed. A mixture of hardwood ashes and salt kept in a low, flat box in their pen so that they could take it at will would probably satisfy this want, and add to the healthfulness of the pig. A little sulphur might profitably be added to the above mixture.

#### SCURVY AND LICE ON CATTLE.

Please give the cause and treatment for cattle in good, clean underground stables becoming very scurvy and lousy at this time of year? ENQUIRER.

Ans.—The sudden change from grass to dry feed may, in some measure, account for the condition of the skin, and underground stables are not conducive to healthfulness, as they are generally dark and damp, affording favorable breeding ground for disease germs and vermin. Clip the hair off the back, neck and tails of the cattle with shears; comb and brush well, and wash with a solution of Zenoleum or other of the sheep dips. Repeat the treatment in ten days, and again if necessary.

#### SHEARING SHOW SHEEP.

1. When is the best time to shear spring lambs for fall fairs?  
2. Do they need to be kept in a warm place after shearing?  
3. What is the proper feed for fitting them for the fairs? B. F. B.  
Ans.—1. Any time in March or April, when the weather is mild.  
2. Only in a moderately-warm pen, closed for a few days until they get used to the change. Do not shear very closely. In the case of long-wool sheep, an inch or one and a half inches may be left, which helps to protect them from cold.  
3. Oats and bran are good and the safest to feed, a little peas or corn may be added, and, nearing the show time, a little oil cake, crushed to pea size.

#### PLAN OF STABLE.

Would you kindly give me a plan how to remodel my barns? I have two barns, 30 x 40 x 12 feet, side by side, with a twenty-foot stoop between. Would like to cover with one hip roof, to make barn 40 x 80, and stables for 20 cows and five horses, also a few box stalls. A. J. H. M.

Ans.—Your carpenter would be the best man to consult in regard to roof. We think that probably your best plan as to frame would be to take down and rebuild. Would suggest the following layout of the 40 x 80 space for stable. Put cow stalls on one side, heads to center of barn, manure passage behind, in all 13 or 14 feet by 80. This would accommodate 20 cows and leave room for passage at one end. Have horse stable across on end in space remaining, say 16 x 25 feet. Put heads to center for convenience in feeding, and board up front partition to lot. There is then left room for feed passage, 9 feet wide, from front of horse stable along center of barn to the other end, and on opposite side from cows for four box stalls, each nearly 16 feet square.

**IF YOU SAW**  
4 H. P. Cuts 2000 Feet Per Day  
Lumber or saw wood, make lath or shingles, or work lumber in any form, you should know all about our improved  
**AMERICAN MILLS**  
All sizes Saw Mills, Planers, Edgers, Trimmers, Lath Mills, Shingle Mills etc. Complete line wood working machinery. Catalogue free.  
American Saw Mill Mch'g. Co.  
113 Hope St., Hackettstown, N. J.  
624 Engineering Bldg., New York City.

### GREENGILL HERD

of high-class

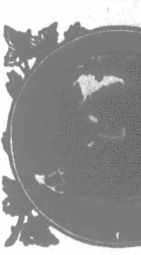
## SHORTHORNS



We offer choice Scotch bulls and females, representing such families as Duchess of Gloster, Village Girl, Rosebud, Orange Blossom, Mysie, Victoria, and other popular families, either imp. or Canadian-bred.

**R. MITCHELL & SONS,**  
Nelson P.O., Ont.; Burlington June Sta.

## MULLYMOON SHORTHORNS



Pure Scotch, imported, and the get of imp. stock.

### 25 HEAD

Anything for sale. 5 young bulls. Breeding gilt-edged and unsurpassed. A few heifers. Prices right.

**W. J. Thompson, Mitchell P. O. & Sta.**

## MAPLE GROVE SHORTHORNS



My present offering: Several imp. cows with calves at foot; also 4 young bulls. Heifers 6 months to 9 years old. Prices and terms reasonable.

**C. D. WAGER,**  
Enterprise Stn. & P.O., Addington Co.

## Wm. Grainger & Son



Hawthorn herd of deep-milking Shorthorns, Aberdeen Hero (Imp.) at head of herd. Eight grand young bulls, also females, all ages. Prices reasonable.

**Londesboro Station and P. O.**

## SUNNYSIDE STOCK FARM



For sale: A number of young SHORTHORN BULLS, red and roan, from imported sire and dams; good enough to head pure-bred herds. Apply: **JAMES GIBB, Brookside, Ont.**

**Shorthorns, Lincolns & Oxford Downs.**  
Heads headed by Protector, Imp. Vol. 68 B. For sale: Bulls from ten to twenty months—three from imported dams and imported sires. Also females in calf. Choice Oxford Downs and Lincolns, both sexes. Also Berkshires, both sexes. All at reasonable prices. **John McFarlane & W. H. Ford, Dutton, Ont., Elgin Co. M. C. R. and P. M. Railways.**

**High-class Shorthorns**—We are now offering 5 young bulls and 3 heifers, two, three and four years of age. Marigolds, the eldest, a daughter of Imp. Royal Member, has a calf at foot by Sailor Champion. This is an extra good lot.  
**THOS. REDMOND, Millbrook P.O. and Sta.**

**Shorthorns** Stamford's English Lady, Mildred, Marthas, Nonpareils. 3 or 4 cows 14 months old 3 heifers 3 cows. Breeding unsurpassed. Canadian and American registration. **F. W. F. WING, Salem P. O., Elora Station.**

**Shorthorns for Sale**—Five choice bulls, all from imp. sire, and three of them from Scotland's Fame (Imp.) at head of herd.  
**ALEX. BURNS, Rockwood P.O. and G.T.R. Sta.**

**MAPLE HILL STOCK FARM**—Scotch Shorthorns of the best families. Young stock for sale of either sex, bred by the grandly-bred bull, Wanderer's Star—1885—  
**Wm. R. Elliott & Sons, Guelph, Ont.**

**When Writing Advertisers Please Mention this Paper.**

# Salem Herd of Shorthorns: Champions of 1905

OWNED BY R. A. & J. A. WATT, ELORA STATION,

15 Miles North of Guelph, on the G. T. and C. P. R.

15 high-class young bulls, the kind that suits all buyers, at attractive prices. Sired by the International winners, Mildred's Royal and the Duthie-bred Scottish Beau.

Trains Met by Appointment.

## DISPERSION SALE

Of the entire Shorthorn Herd of MR. ED. ROBINSON, of Markham, Ont., on

Thursday, Jan. 10th, 1907

COMPRISING

# 41 HEAD OF SCOTCH SHORTHORNS

All either imported or bred direct from imported stock, and representing the Broadhooks, Jilt, Rosemary, Lady Dorothy, Jessamine and other popular Scotch families. Also the stock bull, Royal Champion, imp.

Sale at 1 p.m. Farm adjoining the village.

Catalogues on application.

**ED. ROBINSON,** Markham, Ont.

COL. GEO. P. BELLOWES, Maryville, Mo. Auctioneers.  
CAPT. T. E. ROBSON, Ilderton, Ont.

### QUESTIONS AND ANSWERS. Miscellaneous.

#### A BOUNDARY FENCE.

A owned two hundred acres of land, and had two sons, B and C. There was no line fence between the two lots, but fences were constructed for convenience in working both places. About eighteen or twenty years ago, B got married, and A gave him a deed of one of the lots, which B has since occupied; A, with his son C, living on the other. A owned a compass, and had a little experience running lines, so a line fence was constructed by mutual consent, and the land being very stony, was built chiefly of stone, A and B both taking stone from their different lots and building the fence. Two years ago, A died, leaving his lot to his other son, C, and, recently, some of the neighbors have had a survey, which goes to show that the line fence is a little on B. C has often heard B say he was satisfied, and would never think of moving the stone, whether the line was right or wrong, but now he is hauling material to run a parallel fence on what he considers the line. C, while A was living, and before many of the stone were put into the fence, went to a surveyor and got his terms, and tried to have line run, and was willing to pay A's share, but B made no effort whatever, and appeared to be satisfied, and piled more stone into the fence than A and C did. All parties were agreeable, and no objection to the location of the fence was ever raised until last fall, which must have been fifteen years after fence was built.

1. Can B compel C to pay one-half of expenses for surveyor?
2. If the fence should prove to be on B, can B compel C to move one-half of the fence to line the surveyor marks out?
3. Who will have the stone to move, as it will cost several hundred dollars more than land is worth?

Ontario. SUBSCRIBER.

Ans.—1. No.

2. No.

3. Under the circumstances stated, we think that if there is to be any expense incurred in order that the fence between B and C may be located upon the true boundary line, it ought to be borne by B; but it seems to us to be very doubtful whether B, at this late date, is legally entitled to remove the present fence without C's consent.

#### FATHER CHARGED WITH GOODS SOLD SON.

A farm was willed to a young man seventeen years of age. His parents and the young man himself took up their residence on the farm. The business was transacted in the name of the young man's father, he being the young man's guardian; but, although transacted in the name of the father, it was the young man himself who did the business. In his father's name he purchased articles from a merchant at different times on credit, and continued to do so after he came of age. Can his father be compelled to pay for these articles? SUBSCRIBER.

P. E. I.  
Ans.—Yes, if he was aware of the son's dealings with the merchant, and that he, the father, was being charged with the price of the goods personally and not as guardian, and did not object. He might, however, be able in turn to include the amount in his guardianship account against his son, and so secure eventual reimbursement, but that would depend largely upon the nature of the goods purchased, as to which we are not informed.

### 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.

### STRUAN SHORTHORNS

For sale: Choice young bulls from four to ten months old, sired by Scottish Beau (imp.) (3899); also cows and heifers of different ages. Write for prices, or come and see my herd.

N. S. ROBERTSON, Ontario

### Maple Lodge Stock Farm

1854-1906.

SHORTHORN BULLS—good ones. Several from heavy-milking cows. Choice heifers also LEICESTER EWES, and a lot of extra good rams.

### A. W. SMITH, MAPLE LODGE, ONT.

5 one-year-old bulls \$60 to \$100 } Canadian  
5 one-year-old heifers, \$100 to } Shorthorn  
\$125 } Herdbook.  
4 six-months pigs, pure Yorks. } \$15 per pair  
10 six-months sows, pure Yorks.  
50 six-months pigs, \$14 per pair.  
100 fall pigs, \$6 per pair.

Purchasers must make own selection. Apply  
A. SUMMERS,  
Valley Farm, Aldershot P. O., Ont.

### DURHAM BULLS FOR SALE

I have three good bull calves for sale, one red and two roans. Clementina, Nonpareil and Broadhooks pedigrees and sired by such bulls as (imp.) Spicy Count and (imp.) Old Lancaster. All fit for service.  
Box 556

HUGH THOMSON, St. Mary's, Ont.

### 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.

#### GLYDESDALES

Just now: One pair of matched geldings 6 and 7 years old; show team.

JAS. McARTHUR, Goble's, Ont.

#### Glover Lea Stock Farm

### SHORTHORNS

FOR SALE: Choice bull calves by Golden Cross (imp.). All dark roans. Some from imported sire and dam. Visitors met at Ripley station.

R. H. REID, PINE RIVER, ONT  
Ripley Station, G. T. R.

JOHN LEE & SONS, Highgate, Ont.

### SHORTHORNS & LINCOLNS

The champion herd of Elgin Kent and Essex counties.

For Sale: 6 choice young bulls, 3 reds and 3 roans, of grand type and quality; also good selection of young cows and heifers. Visitors welcome.

### BELMAR PARK SHORTHORNS

10 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.

### ROSEDALE SHORTHORNS

Do you want a profitable cow with calf at foot and bred again; also heifers bred and heifer calves from imported stock. Choice milk strains. Write: A. M. SHAVER, Ancaster, Ont. Hamilton station.

### SHORTHORNS AND BERKSHIRES.

Eight grand young bulls of choice breeding. Ten choice young sows being to our imported boar, and thirty younger ones of prolific families and sired by prizewinning boars.

S. J. PEARSON, SON & CO., MEADOWVALE, ONT.

Stations: Streetsville and Meadowvale, 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.

### GEORGE D. FLETCHER,

Breeder of Scotch Shorthorn Cattle and Yorkshire Pigs.

Our herd of the most noted Scotch families is headed by the \$2,000 Duthie-bred bull, Joy of Morning (imp.)=32070=, winner of 1st prize at Dominion Exhibition, Toronto. A few very choice young bulls from 4 to 9 months old, also females for sale. In Yorkshires are a choice lot of either sex, 7 months old, from imp. sire and dam. Sows bred to imp. hog if desired.

BINKHAM P. O., ONT. ERIN STATION AND TEL.

### 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.) 3267, at head of stud. Farms 3 1/2 miles from Weston, G. T. R. and C. P. R., and electric cars from Toronto.

### Spring Valley Shorthorns

Herd headed by Imp. Bampton Champion=4689= (78280). A choice lot of young bulls and females for sale, among them being winners at the Canadian National.

KYLE BROS., Ayr, Ontario.

# Huron Co. Dispersion Sales

By auction of about SIXTY head of

## SHORTHORNS

Imported and grandly home-bred. Being the entire herds of **W. Doherty, Clinton, and A. H. Jacobs, Blyth, Ont.** The former to take place in the town of **Clinton** on **Tuesday, January 15th, 1907**, and the latter on **Wednesday, January 16th**, at **Mr. Jacobs' farm, near Blyth.** Applications for catalogues as received will be booked by

**W. DOHERTY,**  
Clinton, Ont.



## SCOTCH SHORTHORNS

9 heifers, yearlings. 4 bulls, yearlings.  
99 heifers, calves. 27 bulls, calves.

All out of imported sires and dams.  
Prices easy. Catalogue.

**JOHN CLANCY,** Manager. **H. CARGILL & SON,** Cargill, Ont.

## Maple Shade Shropshires AND CRUICKSHANK SHORTHORNS.

A first-class bunch of yearling ewes, bred to the best imported rams, now ready for shipment. All are for sale at moderate prices.

**JOHN DRYDEN & SON,** Brooklin, Ont.  
Stations: Brooklin, G.T.E. Myrtle, C.P.R. Long-distance telephone.

## WESTSIDE SHORTHORN HERD AND BORDER LEICESTER FLOCK.

All Registered in the Herd and Flock Books of Great Britain.

We invite all interested to inspect the cattle and sheep on this farm. The Shorthorns are long-tried families, tracing to the pioneer herds of Scotland through channels of repute. The Border Leicester flock is one of the oldest in Scotland, and embraces blood of the highest breeding. Selections for sale. Visitors from the States and Canada will be cordially welcomed.

**A. Cameron & Sons, Westside Farm, Brechin, Scotland.**

## Queenston Heights SHORTHORNS

Special offer now: Several choice Scotch bulls, two of which are show bulls, a roan yearling and a red two-year-old by Derby (imp.) = 32059 =. Their dam is Bessie's Maid = 47779 =, by the great sire Royal Prince = 26062 =. There is no better breeding. Also some young cows and heifers at low prices for prompt sale.

**HUDSON USHER, Queenston, Ont.**

## Pleasant Valley Shorthorns

We are offering 7 high-class young bulls, by (in p.) Old Lancaster = 5008 = and out of imp. and Canadian-bred cows, of good Scotch breeding; also several young cows and heifers. Correspondence solicited.

**GEO. AMOS & SON,** Moffat, Ontario  
Farm 11 miles east of Guelph, on C.P.R., one-half mile from station.

**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 Canadian-bred cows. Also a number of very choice heifers. No fancy prices asked. Long-distance telephones. **WM. SMITH, Columbus, P.O.** Brooklin and Myrtle Stns.

**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. Beaucamp. Prices very reasonable. **QUISTAS BROWN, Arr P.O. and Station**

**For Sale**—The stock bull, **Queenston Archer = 45898 =**, by Derby (imp.) dam Veronice (imp.) by Brave Archer (imp.) also a number of choice Shropshire ram lambs at reasonable prices. **BELL BROS., Bradford, Ont.**

## A. EDWARD MEYER

Box 378, Guelph, Ont.

Offers for sale, at prices you can stand, young SHORTHORN BULLS  
Four of them from imported sire and dams. Several cows with heifer calves at foot by imp. Scottish Hero, and a few yearling heifers. All are of the choicest Scotch breeding. Write, or better come and look them over.  
Long-distance phone in house.

## BONNIE BURN SHORTHORNS

For immediate sale: Two 2-year-old heifers, safe in calf; four bulls, two of them out of imp. dam All by imp. sire. Shropshires, both sexes—lamb and shearlings. Berkshires, both sexes, by imp. sire and dam. **D. H. Russell, Stouffville P.O. & Sta.**

**Glenwood Stock Farm**—Holsteins and Yorkshires. Holsteins all sold out. Have a few young York shire sows, about 2 months old, for sale cheap. True to type and first-class. Bred from imported stock. **THOS. B. CARLAW & SON, Warkworth P.O.** Campbellford Stn.

**HILTON STOCK FARM**—Holsteins, Gotswolds and Tamworths—Present offering: Some young cows; a nice lot of young pigs; few boars six months old, and sows in pig. **R. O. MORROW & SON, Hilton P.O.** Telephone Tel. and Sta.

**MAPLE PARK HOLSTEINS**  
Home of the great De Kol Pieterje and Posch families. Schuiling Sir Posch, son of Annie Schuiling, testing over 4% butter-fat officially and grandson of Altje Posch, stock bull.  
**S. MACKLIN, PROP., STREETSVILLE**

**Imperial Holsteins**—An Advanced Registry herd for sale. One year-old bull, a Toronto champion four bulls from 6 to 8 months of age. A.R. on both sides. Imp. in dam from the U.S.  
**W. H. Simmons, New Durham P.O. & Sta.**

**MAPLE GROVE HOLSTEIN HERD** is made up of Record of Merit cows and heifers with large records and headed by Lord Wayne Mechtild Calamity. Young bulls fit for service at reasonable prices. **Walburn Rivers Fold's, Ont.**

**HOLSTEINS AND YORKSHIRES**  
**R. HONEY, Brickley,**  
offers for sale a choice lot of young boars fit for service; also sows ready to mate.

## QUESTIONS AND ANSWERS. Miscellaneous.

### FLESH OF LUMPY-JAW COW.

I have a cow that has had lumpy jaw since last June. If I killed her, would her beef be fit to use? If not, why not?

A SUBSCRIBER.

Ans.—It is unlawful to offer for sale the flesh of an animal affected with this disease. The reason is the alleged possibility of the disease being communicable to man. As a matter of fact, we believe experiments have indicated the improbability of this, and while, as a precaution, we would carefully dissect out any portion of the body that was infected, or near an affected spot, we would have no compunction about eating the remaining portion of the carcass.

### SPOILING SILAGE SOUR HONEY.

1. Can ensilage be fed from the bottom of a silo, or will feeding from underneath spoil the ensilage?

2. Can sour honey be fed to bees without injury?

SUBSCRIBER.

Ans.—1. Silage can be fed from the bottom of the silo, but the result would be a mass of spoiled silage as a result of admission of air. Some years ago, certain self-styled authorities were proclaiming that silage might be cut down with a hay knife, as a block of hay in a mow; we decided to try it, but, though careful in throwing the stuff out, we found, when we commenced to feed from the remaining block, a ton or so of moldy silage that had to be thrown out.

2. Perhaps some of our beekeeping friends will tell us whether they have found any way of preparing fermented honey so as to make it suitable food for bees.

### BRICK VS. CONCRETE VENEER.

1. Which do you think would be the cheapest to use, brick or concrete, and the best to use, brick at \$6 per thousand and \$4 for a mason to lay them, or cement? I can get the gravel one mile from me, and any man, with a little experience, could mix and lay it. The gravel can be got for 45c. per yard.

2. Is the cement damp? Some think it would be.

3. Would a 5-in. wall as veneering be heavy enough for a good job?

4. Would spikes need to be used to tie it same as brick?

M. O. Croton.

Ans.—1. We know a clever mechanic who veneered his house with cement concrete, making a really fine job, but he was positive that the cost was as great as if it had been done with brick. That agrees with our own calculation. Counting everything, we think there would not be much difference in cost, and unless the cement work were skilfully done, the brick would have a better appearance.

2. We think not; but, as you say, some think differently. It depends, probably, on how it is mixed.

3 and 4. A four-inch wall would be thick enough, but whether four or five inches thick, it ought to be fastened to the frame with spikes. T. B.

### SALE OF PUP.

I sent a pup to a certain party, sale on approval. If he did not suit, was to be returned. I sent him about Nov. 1st. I had no pedigree forms, so sent his breeding on sheet of paper. Now they want me to send pedigree, and won't pay me for him unless I do, so they say. I have from good authority, they are no good. They now tell me, if I don't send pedigree, they will send him back C. O. D., express teaming and return charges. What I want to know is if they can return him to me in that way. I have repeatedly told them the pedigree is ready on receipt of check, which they said they would send me about three weeks ago. They claim no sale of pure-bred stock is complete unless the pedigree goes. Is that correct? Is it complete unless the cash goes? Can they return him to me after keeping him a month and collect any charges from me? They were to return him at their expense if he did not suit. How is the best way to proceed?

Ontario. REGULAR READER.

Ans.—Under the circumstances, we think it would be advisable for you to get the animal back upon the best terms you can arrange. It would not pay you to litigate the matter. We think the purchasers are in the wrong, but it is on many accounts advisable to avoid a law suit with them.

## Bone Spavin

No matter how old the blemish, how lame the horse, or how many doctors have tried and failed, use

**Fleming's Spavin and Ringbone Paste**

Use it under our guarantee—your money refunded if it doesn't make the horse go sound. Most cases cured by a single 5-minute application—occasionally two required. Cures Bone Spavin, Ringbone and Sidebone, new and old cases alike. Write for detailed information and a free copy of

**Fleming's Vest-Pocket Veterinary Adviser**

Ninety-six pages, durably bound, indexed and illustrated. Covers over one hundred veterinary subjects. Read this book before you treat any kind of lameness in horses. **FLEMING BROS., Chemists, 45 Church Street, Toronto, Ontario**

## HOLSTEINS FOR SALE



Four imported and one home-bred bull, from 8 to 18 months old; also our entire crop of spring-bull calves, from week old up.

Bred by the grandly-bred imp. bull, **Sir Howie B. Fiesher**, whose dam record is over 88 lbs. milk in one day, and from great-producing cows of the most fashionable strains. Can spare a few cows and heifers, from one year up; 75 head to select from. Cheese 15c. Don't delay if you want one from this herd.

**H. E. GEORGE, Crampton, Ont.**

## Annandale Holstein Herd

Prince Posch Calamity heads the herd. His dam (Calamity Jane) and sire's dam (Alta Posch) in official test, averaged 86 lbs. milk a day, and over 26 lbs. butter a week, one of the greatest sires living.

A number of good young bulls, 1 to 10 months old, for sale, from great sires and A1 cows.

**GEO. RICE,** Tillsonburg, Ontario.

## WOODBINE HOLSTEINS

Herd headed by Sir Mechtild Posch, absolutely the best official-bred sire in Canada. Dam Janthe Jewel Mechtild, 25.5 pounds butter in seven days. Champion cow of Canada over all breeds. Sire's dam, **Aaltje Posch 4th**, holds the world's largest two-day public test record—8.6 pounds butter. Young bulls of the choicest quality for sale.

**A. KENNEDY, Arr, Ont.**  
Arr. C.P.R.: Paris, G.T.R.

## A FEW HOLSTEIN BULLS

fit for service, for sale at reasonable prices. Choice females, all ages. If you are willing to pay good prices for good stuff, write me.

**G. W. OLEMONS,** St. George

## Lyndale Holsteins.

For Sale A number of bull calves from one to four months old, out of Record of Merit cows, and sired by Beryl Wayne Paul Concordia, whose four nearest dams have official butter records averaging 23 lbs. 11 oz. each. **BROWN BROS., LYN, ONT.**

## "GLENARCHY" HOLSTEINS

43 head of big, deep flanked, heavy-producing Holsteins, many of them milking from 50 to 60 lbs. a day on grass. Young stock of both sexes for sale. A straight, smooth lot. **G. MACINTYRE, Renfrew P.O. and Sta.**

**GROVE HILL HOLSTEINS**—We now offer for sale our stock bull, **Verbelle 4th's Count Calamity** Born December, 1903. Only two of his daughters have been tested, and both are in Record of Merit. He is a show animal, and a persistent stock-getter. If you want a bargain write: **F. R. HULLOBY, Frankford P.O. and Sta., C. O. R. Trenton Stn., G. T. R.**

## Greenwood Holsteins and Yorkshires

For sale: A few richly-bred bulls from one to eighteen months old. Also a few choice females of all ages. Yorkshires of either sex. **D. Jones, Jr., Caledonia P.O. and Sta.**

**Evergreen Farm Holsteins** is headed by Prince Pauline DeKol, which we are offering for sale; sire of 10 daughters in Record of Merit; also a choice lot of young bulls fit for service, from Record of Merit cows with large records. **F. C. PETTIT & SON, Burgessville, Ont.**

## CENTRE AND HILLVIEW HOLSTEINS

Bulls 1 year and under for sale, from great-testing dams and sires, all in A. R. O. Records. Our prizes in milk test in America's A. R. O. Records is, 1st prize in 30-day; 5th in 7-day; 6th in 7-day, over 8 months milking.

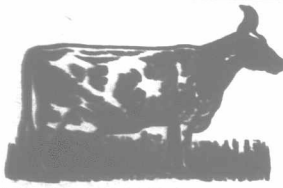
**F. D. BDE, Oxford Centre P.O.** Woodstock, C.P.R. or G.T.R.

# Red Rose Tea

## "is good tea"

Always exactly the same quality  
Those who have used it for years  
are the ones who give it the name  
of "good tea."

T. H. ESTABROOKS, ST. JOHN, N. B. WINNIPEG.  
TORONTO, 3 WELLINGTON ST., E.



### Burnside Ayrshires

Imported and Canadian-bred. Prizewinners at all the leading shows. I hold the award of merit given by the Bd. of Dir. of World's Fair, St. Louis, to the breeder of largest number of prizewinning Ayrshires at said Exposition. Females of all ages for sale, imported and Canadian-bred.

R. R. NESS, JR., HOWICK, QUE., P.O. AND STATION.

### Porter's Golden Fawn St. Lambert and Golden Lad JERSEY HERD.

I AM now breeding the two most popular and productive families of the Jersey breed known—the St. Lambert and Golden Lad. And what is more, my foundation stock of both families was purchased from the two most noted and best breeders of Jerseys on the continent: The St. L. from the late Wm. Rolph, of "Glen Rouge"; and the Golden Lad from T. S. Cooper, Linden Grove, U. S. A. My St. L.'s are headed by the prizewinner, Porter's Pedro Fagus; and my Golden Lads by Blue Bell's Fox of Linden Grove—a grandson of Mr. T. S. Cooper's high-priced cow, Blue Bell, which was sold at his 1903 sale for \$3 600. I have a few animals of both sexes for sale.

THOMPS IN PORTER, Carleton West.

### Pine Ridge Jerseys

FOR sale very cheap some choice young bulls, bred in the purple, of ideal type; also a few heifers and heifer calves and some Cotswold shearing rams and ram lambs. Wm Willis & Son, Newmarket P. O. & Sta.

### HIGH GROVE JERSEYS AND YORKSHIRES.

FOR sale cheap, several choice young bulls and a few heifers, some of them prizewinners at Toronto this fall; bred from the best. Twenty young sows just ready to breed. Prices extended pedigrees and all information for the asking. ROBT. TUFTS & SON, Tweed P.O. and Sta.

### Brampton Jersey Herd

FOR sale: 10 bulls from 6 to 18 months old, imported from St. Lambert or imported stock; also females of all ages. For full particulars address: B. H. BULL & SON, Phone 66, Brampton, Ont.

### DEBORNING STOPS LOSS.

Animals with horns are dangerous and a constant menace to persons and other cattle. Debors them quickly and with slight pain with a SEVSTONE DENORNER. All over the continent. Not a harsh method. Leaves a clean, clean cut. Does not hurt more milk; steers make better beef. Send for free booklet. (C) Sevenson & Sons, Toronto, Ont.

### HIGH-CLASS AYRSHIRE CATTLE

Bulls and heifer calves, two to nine months old, even and heifers all ages. Prizewinners from this herd include Tom Brown and White Floss prizewinners at Chicago. DAVID BENNING & SON, "Clarendon," Williamstown, Ont.

### SPRINGBURN STOCK FARM, North Williamsburg, Ont.

M. J. Whitteker & Sons, Proprietors, breeders of pure-bred Ayrshire cattle, Oxford Down sheep, Berkshire pigs, and Buff Orpington fowls. Young stock for sale. Visitors welcome.

### Ayrshire Bulls—A select pair (13 months old)

by a son of the champions Doublehill (imp.) and Minnie of Lessnessock Camp 1, and out of daughters of imp. cows; also two March calves and one May (all select). W. W. BALLANTYNE, Long-Distance 'phone. Stratford Ont.

### Wardend Ayrshires

We are offering young bulls from 1 to 3 years old; also a choice lot of spring calves from deep milking dams. Bred by White Prince of Menie Farm; bred by A. Hume, Menie. F. W. TAYLOR, Wardend Corners, Head's Stn., G. T. R.

### Ayrshires and Yorkshires

We always have on hand choice animals of above breeds, of any desired age. Prices reasonable. Write us before buying. Intending purchaser meet at Hoard's Alex Hume & Co. Menie P. O.

### AYRSHIRES—Choice stock of either sex, different ages, for sale. Price reasonable. For particulars apply to

M. DYMENT, Hickory Hill Stock Farm, Dundas Stn & Tel. Clappison, Ont.

### W. W. CHAPMAN,

Secretary of the National Sheep Breeders' Association.  
Secretary of the Kent or Romney Marsh Sheep Breeders' Association  
and late Secretary of the Southdown Sheep Society.

### Pedigree Live Stock Agent, Exporter and Shipper.

All kinds of registered stock personally selected and exported on commission; quotations given, and all enquiries answered.  
address: MOWBRAY HOUSE, Norfolk St. LONDON, W. C., ENGLAND.  
Cables—Sheepcote, London.

### Shropshires and Gotswolds

I am offering for sale 100 shearing ewes, home-bred and imported; also an extra good lot of yearling rams and ram lambs of both breeds, some of each fitted for showing.

### Leicesters!

A grand lot of one and two-shear rams and ram lambs, also ewes of various ages.  
Mao Campbell, Harwich P. O., Ont.

### 18 DORSET SHEEP

For sale, selected from flock of Col. J. A. McGillivray.  
Morris & Wellington, Fonthill, Ont.

### SHROPSHIRE

Good young rams and ewes FOR SALE.  
W. D. MONKMAN Bond Head, Ont.

### COTSWOLDS

Some good shearing ewes and ewe lambs, and a few choice ram lambs, right type, for sale. Prices moderate.  
E. F. PARK, Burgessville, Ont.

### Sheep and Cattle Labels.

Now is the time to mark your stock. Drop a card for circular and sample, etc. Order at once. Address: F. G. JAMES, Bowmanville, Ont.

### QUESTIONS AND ANSWERS. Miscellaneous.

**PULVERIZED OR CRYSTAL BLUESTONE.**  
Would you mind letting us know for our guidance if the pulverized or the large-crystal bluestone (copper sulphate) is the better for spraying purposes?  
York Co., Ont. S. P.  
Ans.—In answer to your inquiry regarding bluestone, I may say that the pulverized form is quite as suitable for spraying as the crystalline form; but there is more danger of the former being adulterated. For this reason, I would prefer to buy it in the crystalline form.  
H. L. HUTT.

**VENTILATION OF HOGPEN.**  
Have a hogpen 18 x 50 feet outside, walls 8 feet high, built of hollow brick, cement floor, gable roof, with ventilator on ridge, 2 feet 6 inches by 6 feet. Would I get better results by extending this ventilator down to within 6 feet of floor? Cannot extend it lower. There is no ceiling or upper floor, but there are sufficient windows hung on pivots. I believe foul air is a detriment, even to a hog.  
Ans.—Ventilation would be checked, not helped, by extending pipe down, though there would be less loss of heat.

**EXERCISING STALLIONS.**  
I would esteem it a favor if you will give me your opinion, or that of the readers of "The Farmer's Advocate," whether it is advisable to work a stallion, or can better results be obtained if a reasonable amount of exercise is given?  
Montreal, P. Q. J. M.  
Ans.—If the stallion is intended solely as a stock horse, it will certainly be advisable to work him judiciously, but regular work will interfere with keeping the horse in showing condition, if that purpose is in view. We should appreciate the views of experienced stallioners on these points.

**WHAT WILL KILL BLUE LICE.**  
Is there any known remedy for blue lice on calves? If so, will you kindly publish in next week's issue, and oblige?  
SUBSCRIBER.  
Ans.—Instead of disposing of this question ourselves, we would request our readers to answer the query in hope of drawing out something new, or, at least, especially good. Applications of kerosene emulsion, diluted crude carbolic acid, Zenoleum, or some of the reliable sheep dips advertised in this paper, would be effective; but we would like notes on the results of experience.

**FREEZING WARM WATER.**  
From the time I was a small boy, I understood that when the temperature was very low, if two basins of water—one hot, the other cold—are placed side by side, the hot water will be first to freeze; and, as a matter of experience, find that our plumbing pipes act in same way. Please explain why, if it is the case that hot water is first to freeze.  
K. G. D.  
Ans.—The answer to the question is easily determined by experiment on any cold day. Water cannot freeze before it cools down to 32 degrees F. The warmer it is the longer it takes to cool. Salt water or hard water takes longer to freeze than soft water; boiling softens some kinds of water. The more pressure on water, the longer it takes to freeze or boil. Quality and pressure being the same, the warmer the water is the longer it will take to freeze.  
J. D.

**TENANT MOVING IN PREMATURELY.**  
A rents a farm for a term of years, and B, the present tenant, gives him plowing possession and key of house, it being unoccupied. After freeze up, B comes to A and asks for the key, and gets it, A having partly moved in, and B won't let him move any more until the 1st of April. Can B stop A from moving in the house before the 1st of April, A having one of the keys that belongs to the house? If B stops A from moving in, and any of the perishable goods gets frozen, can A make B pay for the same? The landlady says there is no lease.  
ONTARIO.  
CONSTANT READER.  
Ans.—You do not explicitly say that B's tenancy continues until 1st of April next, but we would infer that such is the case, and would say that B is in a position to stop him from moving into the house before that date, and would not be liable in damages to A in respect of goods becoming frozen, as suggested.

### 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. Dafos 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.

### My Shropshires Won the Flock Prize at Toronto.

And I have imported and home-bred RAMS and EWES for sale that are of the same stamp. All kinds of good

### GOTSWOLDS and SHORTHORNS as well.

Prices always reasonable.

### ROBERT MILLER, Stouffville, Ontario.

### FARNHAM FARM OXFORDS

We are offering for sale 100 strong, vigorous, good-quality ram lambs, a number from best imported sires. We also have for sale 50 yearling and two-shear ewes, and a number of ewe lambs. Telegraph Guelph.  
HENRY ARKELL & SON, ARKELL, ONT. Guelph, G. T. R.

### Southdowns

Imported and home-bred ewes in lamb to imported and prizewinning rams. COLLIES—Puppies by imported Holyrood Clinker; also bitches in whelp.  
Robt. McEwen, Byron, Ont. Long-Distance 'Phone.

### FAIRVIEW SHROPSHIRE EWES.

Rams at Service Proved Getters of Extra Good Stock.  
BELVOIR SIRDAR, champion at St. Louis World's Fair, where he was a winner of \$510.  
HARDING'S BEST, champion at the International, winning over Belvoir Sirdar.  
FAIR STAR ROSE, Mansell-bred, the greatest living producer of international winners.  
ALMONT, sired by a Mansell ram and out of a Butter ewe.  
Only a limited number of ewes to offer. Do you need a few good ones? If so, write: JOHN CAMPBELL, Woodville, Ont., Canada.

### E. T. CARTER & CO., Toronto DEERSKINS HIDES, SKINS, FURS

Canadian Agents for the Original McDougall's Sheep Dip & Cattle Dressing Imported direct. Price: Imperial pints, 50c.; Imperial half-gallon, \$1.25; Imperial gallon, \$2.25. Sold by druggists, or charges prepaid on one-dollar line. THE WORTHINGTON DRUG CO., Toronto, Ontario.

### Maplehurst Turkey

For sale: Lent breed won sweep among our 1904, both aged and ships. In For further D. DOU

### NEW and medi for service together v four mont calf to Dor nice bull spondence door. and

### Mount and Holste ages on ha profitable not skin 1945. Wor ronto. 1901

### CHES

### ROBERT C

### Joshua L

### Adver

# I Give it Free



To Men Until Cured  
Not One Penny in  
Advance or on  
Deposit.

I wish you could know for yourself the wonderful effect of the galvanic current on weak and nervous men. I wish you could realize the health and happiness that will be yours when this wonderful force infuses every nerve and vein of your body as accomplished through my treatment. I have been curing thousands every year for forty years, and have proved that my

method will cure any curable case. So positive am I of my power that I am prepared to take all the risk, and will give to any man suffering from Nervous Debility, Varicocele, Drains, Lack of Vigor, etc., or from Rheumatism, Lamé Back, Kidney, Liver or Stomach Troubles, the use of my world-famed Dr. Sanden Electric Belt, with Electric Suspensory, absolutely FREE UNTIL CURED. If I fail you don't pay me anything whatever. I leave you to be the judge, and ask not one penny in advance or on deposit. I cannot do more than this to prove the value of my treatment, so if you will call or write I will at once arrange to give you a Belt suited to the requirements of your case, and you can pay me when cured. Many cases as low as \$5.00, or for cash full wholesale discount. You will also get the benefit of the inestimable advice my forty years' experience enables me to give my patients. This long continuous success has brought forth many imitators. Beware of them. You can try the original, the standard of the world, free until cured, then pay for it.

Call to-day and take a Belt along, or send for one by mail. I have two of the best books ever written on Electricity and its medical uses, and containing several hundred wonderful testimonials, which I also send free, sealed, by mail. Address,

**DR. B. W. SANDEN,**  
140 Yonge Street, TORONTO, ONT.

Office Hours: 9 to 6; Saturdays until 9 p.m.

Dineen Building, Entrance 6 Temperance Street.

## QUESTIONS AND ANSWERS.

### Veterinary.

#### CHRONIC COUGH.

Yearling draft colt has had a cough since last spring, noticeable after drinking. J. E. J.

Ans.—Chronic coughs in horses are very hard to check. Give him, every morning, a ball composed of 1 dram each of the solid extract of belladonna and powdered opium, 15 grains digitalis, and 40 grains camphor, mixed with sufficient oil of tar to make plastic. Roll in tissue paper, and administer, or mix with a pint of warm water and give as a drench. V.

#### INDURATED MAMMÆ.

After weaning her foal, in 1905, one side of my mare's mamme became swollen and sore. When on grass last summer, the swelling almost disappeared; but, since the cold weather has come, it is again swollen. She will be due to foal in April. R. S.

Ans.—This is the result of inflammation of the gland, which occurred after weaning. When foals are gradually weaned, as so often advised in this journal, cases like this do not occur. Get a liniment made of 2 drams each iodine and iodide of potassium, and 4 ounces each glycerine and alcohol. Rub the enlarged gland well with this once daily. Feed on easily-digested food, and give regular exercise. It is possible an abscess may form, and, if so, it must be lanced, and the cavity flushed out, twice daily, with a five-per-cent. solution of carbolic acid until healed. V.

#### ABORTION, ETC.

1. When affected with contagious abortion, at what period of gestation will a cow abort, and will she surely abort at the same period every time?

2. Is there any way of detecting the presence of the virus of the disease in a bull by undeveloped testicles, etc.?

3. If a cow has a blind teat, will she produce heifers that will go the same, or bulls that will sire heifers that will have the same trouble? G. H. C.

Ans.—1. Cows affected with contagious abortion may abort at any period of gestation, from a few days to within a few days of full term. Sometimes the foetus is so fully developed that it will live, while in others the embryo no doubt is so small that it is not noticed. In the same cow, the periods may differ as above.

2. No. No abnormal conditions are noticeable.

3. It has been noticed that cows with blind teats produce heifers a percentage of whom suffer from the trouble at variable ages, and it is quite possible that a bull produced by such a cow would sire heifers with a predisposition to the trouble. In fact, there are few, if any, abnormal conditions that appear without apparent cause, the predisposition to which are not hereditary. V.

#### DISEASED JOINTS.

Eighteen months ago one of my cows became stiff in her joints, and has gradually grown worse in spite of treatment, and now all her joints are stiff and swollen, and she can hardly rise, and is very thin, and she began to show similar symptoms three weeks ago. She is stiff and swollen in all her joints. She cannot use one hind leg at all, and can get up only with difficulty. No other symptoms of disease is shown in either. SUBSCRIBER.

Ans.—The cows are suffering from arthritis (inflammation of the joints). I am of the opinion the trouble is tubercular, and, if so, no treatment will be successful. I would advise you to destroy the cow first affected, as there is no reasonable probability of her recovery. The second one is worth a trial. Keep her bowels open by giving small doses of raw linseed oil, say ½ pint, as required. Give her 1 dram iodide of potassium twice daily. If this interferes with appetite, give ½ dram three times daily. Bathe the joints long and often with hot water, and, after bathing, rub well with camphorated liniment, with which any druggist will supply you. Feed well, and assist on her feet at least once daily. V.



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holds a position unrivalled by any other blood medicine as a cure for

**DYSPEPSIA, BILIOUSNESS, CONSTIPATION, HEADACHE, SALT RHEUM, SCROFULA, HEARTBURN, SOUR STOMACH, DIZZINESS, DROPSY, RHEUMATISM, BOILS, PIMPLES, RINGWORM, or any disease arising from a disordered state of the Stomach, Liver, Bowels or Blood. When you require a good blood medicine get BURDOCK BLOOD BITTERS.**

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Sunnymount Berkshires are unsurpassed for ideal bacon type and superior breeding. For immediate sale: 3 sows 11 months old, in pig; several sows from 5 to 7 months old; 3 boars 11 months old, and several 5 to 7 months old, and younger ones of both sexes. Imp. sires and dams. JOHN McLEOD, Milton P. O. and Sta., C. P. R. and G. T. R.

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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.

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GLENHODSON COMPANY, Myrtle Station, Ont. Long-distance phone at farm. Lorne Foster Manager

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GEO. M. SMITH, HAYSVILLE, ONT.

When Writing Please Mention this Paper

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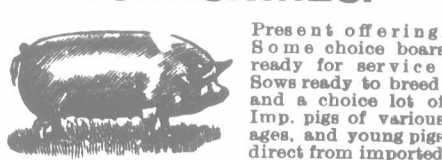
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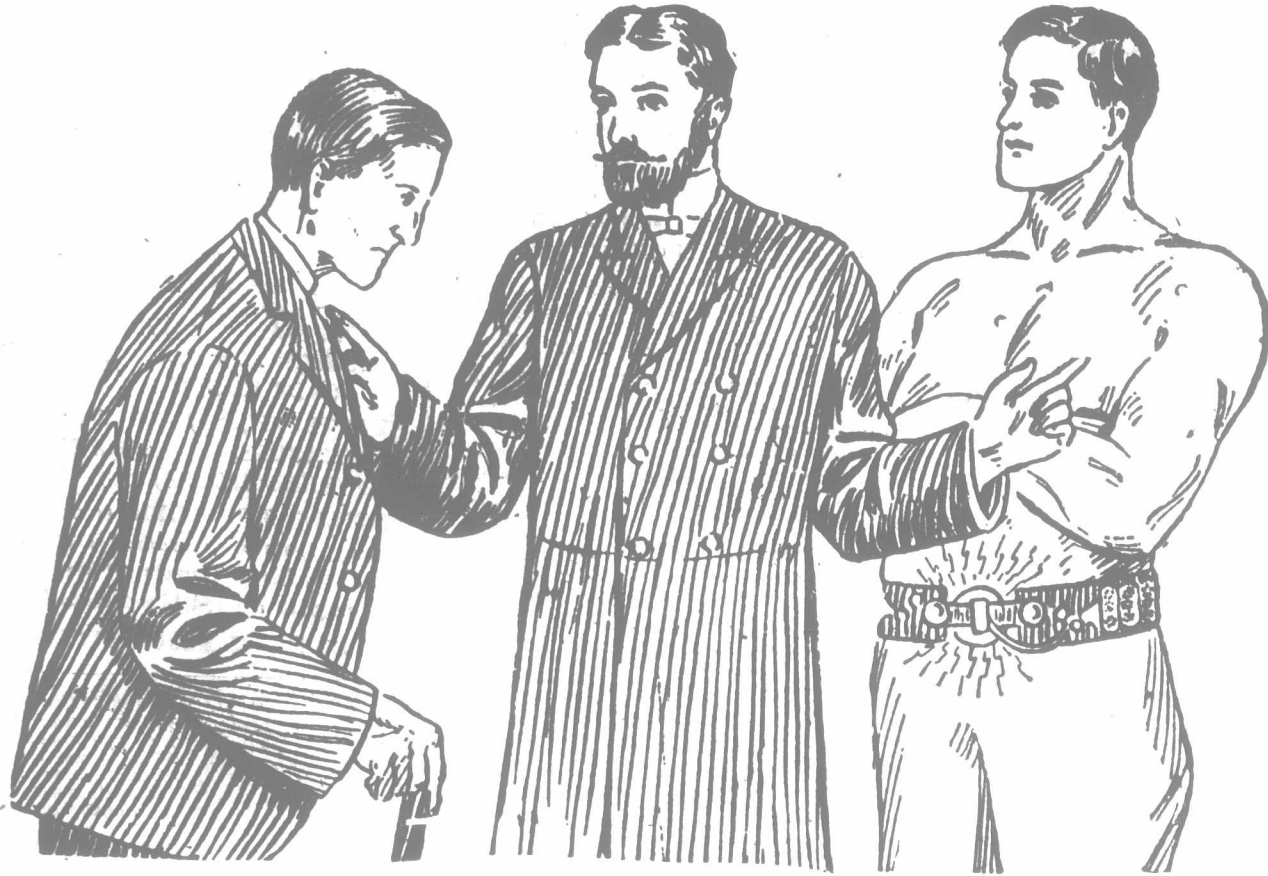
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Are you a weak person? Are you nervous, fretful and gloomy? Is your sleep broken? Have you pains and aches in different parts of your body? Is your back weak and painful? Have you lost the vigor of youth? Are you rheumatic or gouty? Does your back ache? These are the results of the waste of vital force. The gentle stream of Electricity from my Belt going into the nerves and weak parts for hours every night soon replaces all energy, and makes every organ perfect. It is worn while you sleep, and pours a steady stream of electricity into the nerve center, saturating the weakened tissues and organs with its life. This is strength. From it come the vim, the energy, the fire of perfect physical and mental action. It renews health and happiness.

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Young boars and sows, 3 and 6 months of age, out of imp. sows, and sired by Imp. Polgate Doctor, Royal Masterpiece, a son of the \$2,500 boar, Masterpiece, and some of them imp. in dam. Satisfaction guaranteed.  
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## Woodstock Herd of Large English Berkshires

I have for sale pigs of all ages, both sexes, from prizewinning stock. Sires in use: Imp. British Duke, assisted by Woodstock Laddie, son of Polgate Doctor. Come and see or write for prices. My herd was in the front rank of prize winners at the leading exhibitions this fall.  
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### QUESTIONS AND ANSWERS. Miscellaneous.

#### VENDOR REMOVING CHATTELS.

1. A sells B a farm, and nothing is mentioned about the straw. Does the straw belong to A, or does it go with the farm?

2. B buys a farm from A in the summer with the understanding that A was to feed all his stock until about the 1st of March, and then leave the balance of the straw for B. A had a sale in October, and sold all his stock, except one cow and some small pigs. A has sold five loads of oat sheaves, and all the barley and pea straw. Can A sell the oat sheaves and the straw, nothing being mentioned in the writings about the straw?

3. Can A move any of the straw off the place for his own use?

4. B buys a farm from A in the summer, the storm windows not being on the house then, and so far this winter are not on. A has used them on the house every winter since the house was built. Should they remain with the house at the time of possession, March 1st?

#### ONTARIO. OLD SUBSCRIBER.

Ans.—1. A would be entitled to remove it prior to the date agreed upon for the delivery of possession of the farm to B. 2 and 3. He certainly ought not to do so; but it does not appear that B is in a position, legally, to prevent him.

4. Yes, unless sooner removed by A.

#### GINSENG, LAVENDER AND PEPPERMINT.

Will you be so good as to inform me, through your columns, as to the cultivation of ginseng, lavender and peppermint, stating whether markets for same are safe and sure? What books, and where published, deal with these plants fully, and their management? Couldn't you devote one article to each, say in our next three issues?

#### PRO BONO PUBLICO.

Ans.—Ginseng has been cultivated to a considerable extent both in this country and the United States for the Chinese market, and I understand that a few of those who have given it most careful attention have found it profitable; but it is not a crop we would recommend for general cultivation, for, at best, it means that we take advantage of the credulity of the poor heathen Chinese. Ginseng may be grown in any well-drained soil which is rich in humus, and where shade and moisture can be given it. It requires three or four years for a plantation to produce roots of salable size. It may be grown either from seeds or from young plants. A book on ginseng culture may be ordered through "The Farmer's Advocate" office, which will give you far more information than could be given at this time.

Lavender is a perennial, herbaceous shrub, which grows to a height of from one to three feet, and is cultivated to some extent in Spain, Italy, Southern France, and Southern England, for the manufacture of perfumery and lavender water. It has not been grown commercially in this country, except in California and Alabama. The plants are tender, and if grown in northern sections, winter protection would have to be given them. If they can be grown successfully anywhere in Canada, it would probably be on Pelee Island, or the adjacent mainland. Plants are propagated by cuttings, and a plantation is supposed to last for five or six years. I cannot say anything about the market for the product in this country.

Peppermint is a hardy perennial, which thrives anywhere in this country on rich, mucky soils. It has been somewhat extensively cultivated in south-western sections of Michigan and the adjacent parts of northern Indiana. It is usually propagated by means of the young root-stalks. These are planted early in the spring in furrows about 30 inches apart. In some places, the rows are kept clean by means of cultivator, and in others the plants are allowed to cover the ground like hay, and are cut with the mower in August or September, and cured somewhat like hay. From the windrows, it is hauled to the stills, where the essential oil is extracted by distillation. The average yield per acre is said to be about twenty-five pounds of oil. I cannot say much with regard to the market for it in this country, but I feel sure that the prices are good for a limited quantity. **H. L. HUTT,** Ontario Agricultural College.

REMOVE CENTER EIGHT PAGES, PASTE THEM INSIDE COVER OF JULY 5 (1906) ISSUE FOR REFERENCE.

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.....1916, 2050	Express, forwarding by .....	1397	Minorca cock with drooping comb.....	1125	Saltpetre .....	1828	Weight of stock by measurement .....	1746h
.....2050	Express charges on fowls .....	2084	Miscellaneous queries .....	1072	Sanfoin, etc. .....	1908	Weight of cream .....	1072
.....1582	Far-tag material .....	1117	Milk, rosy .....	1124	Sale of pup .....	2091	Weight-carrying hunters.....	1676d
.....1676d	Ejecting tenant .....	1498b	Milk, shrinkage of .....	1153	School tax .....	1797	Weed in Nova Scotia .....	1640
.....1702	Elephantiasis .....	1746h	Milk, bloody .....	1157, 1644	Scurvy and lice on cattle .....	2089	Weeds, how to kill .....	1649
.....1538, 1541, 1880	Engine, defective .....	1884	Milk, feeding fat into .....	1342	Shallow soil, treatment of .....	1505	White grubs in corn .....	2085
.....1676c	Enticing servant away .....	1234	Milk, premature escape of .....	1613	Sheep-raising, to start .....	1650	White-winged cross-bill .....	1911
.....1298, 1829	Enforcing a judgment .....	1082	Milk yield of average cow .....	1227	Sheep pasture on broken sod .....	1676c	White guinea fowl .....	1846
.....1676c	Evergreens, large, transplanting .....	1647	Milking machines .....	1228	Sheaves of oats for a bushel .....	1876	Whitewash .....	1650
.....1532	Exercising stallions .....	2092	Mould in cellar .....	1298	Shearing show sheep .....	2089	Whey with meal for fattening fowl.....	1261
.....1916, 2050	Express, forwarding by .....	1397	Mourning cloak butterfly .....	1505	Silver and Silver-laced Wyandottes.....	1125	Wheat, does it change into chess?.....	1342
.....2050	Express charges on fowls .....	2084	Mushrooms .....	1124, 1755	Silo, capacity of .....	1648	Wheat or bran for food .....	1649
.....1582	Far-tag material .....	1117	Nuisance, a municipally permitted.....	1153	Silage, when to feed.....	1648	Wheat turning yellow .....	1746h
.....1676d	Ejecting tenant .....	1498b	Nuisance, abating a .....	1384	Sore eyes in sheep .....	1797	Wild caraway .....	1072
.....1702	Elephantiasis .....	1746h	Objectable use of road-allowance.....	2088	Sow thistle .....	1304	Wide-cut machines .....	1298
.....1538, 1541, 1880	Engine, defective .....	1884	Oil cake for horses .....	1121	Soiling crop, sand vetch as .....	1839	Windpuffs .....	1542
.....1676c	Enticing servant away .....	1234	Onion tops, breaking them .....	1232	Sow falling to show costrum.....	1384	Width of horse stalls .....	1746h
.....1298, 1829	Enforcing a judgment .....	1082	Onion-growing .....	1578	Sow, sick .....	1823	Wormseed mustard .....	1082
.....1676c	Evergreens, large, transplanting .....	1647	Option to purchase .....	1261	Sorghum .....	1800	Working days .....	1297
.....1532	Exercising stallions .....	2092	Ownership of fence .....	1261	Sour honey .....	2091	Wolf teeth in colt .....	2085
.....1916, 2050	Express, forwarding by .....	1397	Ownership of fruit .....	1267	Sparrows, destroying .....	1823	Wyandotte with red-tinted legs .....	1916
.....2050	Express charges on fowls .....	2084	Ox-eye daisy .....	1227	Splint .....	1755	Yarrow .....	1121
.....1582	Far-tag material .....	1117			Spoiling, silage .....	2091	Yeast treatment for mares .....	1336
.....1676d	Ejecting tenant .....	1498b			Spraying mustard .....	1268	Yeast treatment for barrenness .....	1712
.....1702	Elephantiasis .....	1746h					Yorkshires, starting herd of .....	1746h

## QUESTIONS AND ANSWERS.

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

2nd.—Questions should be clearly stated and plainly written, on one side of the paper only, and must be accompanied by the full name and address of the writer.

3rd.—In veterinary questions, the symptoms especially must be fully and clearly stated, otherwise satisfactory replies cannot be given.

4th.—When a reply by mail is required to urgent veterinary or legal enquiries, \$1 must be enclosed.

## Miscellaneous.

## RIGHT TO RENT.

A leased a farm to B. When the lease expired last November, there was an understanding between the contracting parties that B should have the farm for another year on the same terms as before (there was no witness), but there has been no new written agreement. B is still on the farm, but neglects signing the agreement, though he has been asked to do so at different times. Should B leave the farm this spring? Can A claim rent for the time B has occupied it since the expiration of the old lease?

Ontario. A NEW SUBSCRIBER.

Ans.—Yes.

## SHEEP HAVE SORE MOUTHS.

I have a flock of 54 sheep, 30 old ones and 24 last year's lambs. A number of the old ones, and one of the lambs have sore mouths or lips, but I cannot find any sores inside the mouth. The sheep are all in good condition and strong. They had good appetites until lately. I have fed oat straw twice a day, and hay once, with a feed of bran and shorts, but lately I have fed peas in the straw instead of oat straw. Kindly let me know the cause and cure.

W. E. P.

Ans.—It is difficult to assign a cause in this case, but we would advise as treatment, washing the sores with a strong solution of one of the coal-tar sheep dips. Another remedy that might be effective is a mixture of sulphur and lard or oil.

## GALVANIZED PAN.

Would you please give information in your next week's issue if there is any danger of poisoning syrup by boiling sap in a galvanized-iron pan?

G. B.

Ans.—There is no danger of poisoning the syrup by boiling it in galvanized-iron pans, though for several reasons tinware is preferable. On this point, I may quote from an authority on the subject of sugarmaking in the Eastern States, who says: "Evaporators are sometimes made of galvanized iron, but the majority of them are made of tin. The objections to galvanized iron would be (1) failure to retain shape, (2) more extensive sticking of 'nitre,' (3) harder to remove nitre and keep clean, (4) not easy to repair, i. e., solder, particularly after being used. Tin costs but little more, and is, from every standpoint, to be preferred. I am of the opinion that a poorer grade of syrup would result from galvanized-iron evaporators."

FRANK T. SHUTT.

Chemist, Dominion Expl. Farms.

## MANURING FOR ROOT CROP.

Providing you had no manure, how would you prepare, this year, a sandy soil that is apt to get rather dry, for a root crop next year?

R. F. F.

Ans.—It is difficult to give definite advice regarding the preparation of soil for root crop without knowing more of the particulars regarding what crops you are in the habit of growing, or can make use of. I may say, however, that as a means of enriching the soil and filling it with vegetable matter which will enable it to hold moisture better, there is nothing like growing and turning under a crop of clover or vetches. This, however, means that you would get little or no direct return from the land this year unless it might be that you chose to pasture off the clover or vetches after they had well filled the soil with their roots. It might be well for you to try two or three different crops in this way, for instance, seed down part of the ground to hairy vetch, another part to crimson clover, and another part to the common red clover. The seed for this could be sown early in the spring, and the crop plowed under early enough in the autumn to enable it to become well decomposed before winter set in. It would certainly leave the ground in excellent shape for root crop the next season.

H. L. HUTT.

Ontario Agricultural College.

## HOE VS. SHOE DRILL FOR SANDY FARM.

Would some readers kindly give advice as to the best kind of seed drill (hoe or shoe) for use on sandy farm (some gravel too) that is subject to couch grass, at as early a date as possible?

King's Co., N. B. SUBSCRIBER.

## Veterinary.

## SKIN DISEASE—LUMPS IN TEATS.

1. Small terrier had an eruption on nose. We cured this, but small, sore lump appeared between the toes and on the legs.

2. Two-year-old Jersey cow has two small lumps about the size of grains of wheat in each of three teats. Milking causes pain and swelling of the teats below the lumps.

C. H.

Ans.—1. Give a little sulphur daily in food, and dress the affected parts, twice or three times daily, with an ointment made of Bismuth, 2 drams; vaseline, 1 ounce.

2. The teats can be operated on by a veterinarian, but the operation is often unsuccessful, and liable to set up serious complications, as the little tumors are liable to grow and prevent the escape of milk, and, while they may not enlarge during this period of lactation, it is very probable they will occlude the ducts before next calving. I would advise you to not breed her again. Do not allow anybody to pass a knitting needle, or anything, as bungling work like this is almost sure to cause serious complications.

V.

## LAME DOG—LAME MARE—SORE EYE.

1. Dog went lame in hock last fall. The hair came off, and it has been sore ever since.

2. Mare is sore in fore feet. She is worse on hard ground than on soft.

3. Filly has a sore eye. It is inflamed and bluish.

G. W.

Ans.—1. Dress the sore parts, three times daily, with carbolic acid, 1 part, sweet oil, 35 parts.

2. Blister the coronets with 2 drams each biniodide of mercury and cantharides, mixed with 2 ounces vaseline. Clip the hair off for 2 inches high all around the hoof; tie so that she cannot bite the part, rub well with blister daily for two days, on the third day wash off and apply sweet oil. Turn in box stall now, and oil every day. As soon as the scale comes off, tie up and blister again, and, after this, blister once every four weeks as long as you can give her rest. This treatment will relieve the symptoms, but it is not probable it will effect a cure. When you have to put her to work, get bar shoes on feet.

3. Bathe well with hot water, three times daily, and, after bathing, put a few drops of the following lotion into the eye: Sulphate of zinc, 10 grains; fluid extract of belladonna, 20 drops; distilled water, 2 ounces. A few attacks of this trouble will probably terminate in cataract, and you cannot prevent the attacks.

V.

## ABORTION.

Kindly tell me the cause of cows slipping their calves. I have had four already this winter—three, four, and five weeks before time was up; calves nearly fullgrown; alive for an hour or two. My cows are in good healthy condition; been fed on a little ensilage, a little turnips, little hay, straw and chaff; hardly any chop. They are bringing nice bags, and give a fair amount of milk.

SUBSCRIBER.

Ans.—This is evidently contagious abortion, a scourge that is giving great trouble in many sections of the country, and which has frequently been dealt with in these columns. The cause and the remedy are both uncertain as yet, though much has been written of both. Veterinary authorities claim to be sure it is due to a germ, spread by contact, gaining entrance to the womb via the vulva, setting up inflammation resulting in abortion at various periods of gestation. The preventive measures and treatment recommended are burying the calves and cleanings, thoroughly disinfecting the floors by liberal use of the coal-tar sheep dips, daily washing the hind parts of the cows, and syringe the sheath of the

bull with the same before and after service, and not breeding the cows for three or four months after aborting. Carbolic acid given in 25-drop doses twice daily in feed or as a drench is also advised as a preventive.

## TRADE TOPICS.

Canadian nurses have ever been sought for in the United States, and the Allegheny General Hospital knows where to look for young ladies of refinement to take a three years' course of hospital nursing. You will find their advertisement in another column, and may do well to turn it up. Further particulars on application to Superintendent of Hospital, Allegheny, Pa.

Just a few weeks more, and the busy, prosperous horse buyers will be searching the country again. And these buyers will know a good horse when they see one, be sure of that. So it will be a wise move on the farmer's part to take the chance offered by the present slack time, and see if there are any blemished horses in the stalls. If there are, get busy at once, now is the time to clean and cure them up ready for the buyer's keen examination. Forty or fifty dollars have more than once been lost to farmers because of a blemish or disease on animals they've tried to sell. Many successful horse-breeders use "Absorbine," relying on it to remove all blemishes.

GOOD SAWMILLS.—The march of progress in the making of improved and simplified machinery is particularly noticeable in the sawmill-machinery line. For a comparatively small outlay, a farmer may now add a lumber-making equipment to his place, and operate it himself during slack seasons, adding to his yearly profits. Any readers interested in such an equipment are advised to communicate with the American Sawmill Machinery Co., 113 Hope St., Hackettstown, N. J., or 624 Engineering Bldg., New York City. This is an old-established firm, with an immense modern plant at Hackettstown, N. J. Their machinery is of the latest improved pattern, made of the best materials obtainable, and as they sell direct to the user, and manufacture in great quantities, their prices are low, quality considered. This company will send to any of our readers free a very complete and instructive book on sawmill machinery in general and theirs in particular. It is worth a careful reading by those who have timber at hand.

## TAXIDERMERY EASY TO LEARN.

Every sportsman, huntsman, fisherman or naturalist ought to be able to mount his own birds, game heads or fish. Many and many a fine specimen of game or fish, which would have been worth a great deal of money, is left in the woods to be ruined because the hunter does not know how to tan the skin or stuff the head. The art of taxidermy is taught by mail by the Northwestern School of Taxidermy, Omaha, Neb. A taxidermist makes big money all the time, and there is much more work than he can do. Besides, taxidermy is a fascinating amusement. An office, home or den decorated with the trophies of gun or rod becomes a pretty and interesting place.

The Northwestern School of Taxidermy was awarded twelve gold medals for its grand exhibit at the Portland, Ore., Exhibition. Prof. J. W. Elwood, formerly superintendent of schools in Iowa, is manager of the school, and has under him a corps of expert taxidermists. Taxidermy was long regarded as a most mysterious and secret art, known only to a few persons. But Prof. Elwood says he is able to teach the art to men, women and even children, so simple has it been made by himself and his skillful instructors. Write for a copy of his Taxidermy magazine. It contains pictures of birds, fishes, and animals, which have been mounted by the most famous taxidermy artists. On another page will be found other matter concerning the Northwestern School of Taxidermy, at Omaha.

## GOSSIP.

Mr. James Snell, Clinton, Ont., has exchanged his imported Shorthorn bull, Scottish Peer, with Mr. J. C. Bricker, of Elmira, for Imp. Scottish Volunteer =55044=, by Golden Prince, by Golden Fame, dam Lady Mina, by Belisarius, bred by Mr. Marr, of Cairnbrogie.

## T. H. HASSARD'S CLYDESDALES, HACKNEYS AND PERCHERONS.

For 15 years, the name of T. H. Hassard, V. S., of Millbrook, Ont., has been before the people of Canada as an importer of Clydesdale, Hackney and Percheron stallions and fillies. The rapidly increasing extension of his business, and the great number of horses imported and sold by him year after year, the general satisfaction evidenced by his many customers, and their name is "Legion," and the invariable financial success they have proven to their purchasers is proof that he is master of his business in the line of judgment of type, conformation, character and of what is of more importance, particularly in a stallion, robust constitution. Again, his horses have at the leading shows in Canada, particularly Toronto and Ottawa and Ogdensburg, New York, repeatedly carried off the red, white and blue, the emblem of champion honors, as well as first, second and third prizes galore, and it is safe to say that never before in his stables were these horses of a higher standard of excellence in the combination of size, quality, character, smoothness, and stylish, flash action than are there just now. This can be confirmed by anyone capable of judging on visiting and looking over such cracks as Vigorous (imp.), the bay three-year-old son of Up-to-Time, a horse of great scale, smooth to a turn, with as nice a set of underpinning as ever graced a Clydesdale stallion, and action true as a straightedge. He is faulted by some on account of lack of feather, but just what earthly use a lot of mud-catching hair on a horse's legs is we were never able to discover. Another of the top-notchers is the bay three-year-old son of Baron o' Buchlyvie, Dunure Baron, dam by Royal Gartley, second dam by Darnley's Last, one of the best bred Clydesdale stallions alive, and the making of a 2,100-lb. horse. He now weighs 1,950 lbs. Last year he had the Middle Ayrshire premium, one of the choicest in Scotland, 80 pounds, with a guarantee of 100 mares of £2 at service and £2 when in foal. He is a massive colt, with all the character possible; his underpinning leaves nothing to be desired; his length of rib and strength of loin, his powerfully-muscled quarters, strong stifle and nicely-sloped shoulders are all indicative of wonderful strength and ideal draft type. These are only two of a dozen or more nearly if not quite as choice individuals, among which are several that will make ton-weights and over, such as Sir Gordon (imp.), a brown five-year-old son of Royal Favorite; Darvel (imp.), a brown three-year-old son of Crown Derby, he by Baron's Pride, and First Baron (imp.), a bay yearling son of the great Hiawatha. Here is, without doubt, one of the best all-round yearlings that ever crossed the water. Dunure Barnum (imp.), a bay two-year-old son of Dunure Castle, is another of Baron Pride's sons. Castleton King (imp.) is a massive three-year-old son of that great sire, Hillhead Chief, and thus we might go on, did space permit. In females, there are still four on hand: Miss Wright (imp.), a brown three-year-old, by Lord Londonderry. Meg (imp.), the brown three-year-old daughter of Elator, who won first at Toronto lately in a very strong class. Blossom of Newlands is a bay two-year-old, by the double champion, Sir Mark. Another is a bay yearling, by Gartley Gold. In Percherons, there are four black three-year-olds on hand, all winners at home, a quartette that for style, quality, action and beautiful contour of mould could hardly be excelled in any one man's stable. In Hackneys, there are half a dozen stallions on hand, first-prize winners and champions. Among them are horses as richly bred and as grand-quality animals as the breed produces, such as British Yeoman (imp.), by Pilot 2nd (he won best and champion at Ottawa last fall), Cedar Conquest (imp.), by Conquest 2nd (he also won first at Ottawa last fall), and others equally as good but never shown. During the last month, Mr. Hassard has sold 14 head of horses, and every one is paid for.

Caleb's Courtship.

(E. T. Corbett, in Harper's Magazine.)  
 I hadn't no time for courtin' when I was young an' spry,  
 For what with workin' an' savin' I let the years go by;  
 Then I was buyin' an' buildin'—and farm work never gets done—  
 Till at last I counted my birthdays, and found I was fifty-one.  
 "High time," sez I, "to be choosin' a suitable pardner for life."  
 So I just set down and considered where I'd better look for a wife,  
 I wanted her young an' handsome, of course, an' stiddy an' neat,  
 Smart at bakin' an' churnin', quick with her hands an' feet,  
 But slow with her tongue (for talkin' just wastes a woman's time)—  
 An' as savin' with every penny as ef 'twas a silver dime;  
 An' ef she was good at mendin' an' scrubbin' an' cleanin' house,  
 I made up my mind to take her ef she was as poor as a mouse.  
 Waal, it cost some time an' trouble to diskiver a gal to my mind—  
 There was lots of 'em to choose from, but the best was hard to find.  
 At last, after lookin' an' thinkin', I settled on Eunice Steut,  
 The deacon's youngest darter—nineteen or thereabout,  
 Pretty—yes, as a picter; made the best butter, too,  
 That ever was sent to market. Sez I, "I guess she'll do."  
 Whenever I stopped to the deacon's, she's as busy as a bee—  
 Allus a-workin' an' doin'—yes! that's the wife for me!  
 But now that I'd done my choosin' sez I to myself, "what next?"  
 I didn't know much about winnin', an' I'll own I was some perplexed;  
 So I asked advice of a neighbor—that was the biggest mistake—  
 Things mightn't have gone so crooked if I'd never said nothin' to Jake;  
 But he was twenty year younger, an' the gals all liked him, ye see—  
 So I asked his advice about Eunice—just like a fool as I be.  
 Sez he, "Why, man, it is easy, you must take her out to ride;  
 You must bring her home from meetin', an' stick close to her beside;  
 You must go to see her evenin's; you must buy her some pretty things—  
 A book or a breastpin, mebbe, some ribbons or some rings;  
 Then tell her her cheeks is rosy, tell her her eyes is bright;  
 Tell her you love her dearly, an' dream of her at night;  
 Tell her—but here I stopped him. "It's easy talkin'," sez I,  
 "But I never did no courtin' an' I'm half afraid to try—  
 I'll make ye an' offer, Jacob; if you'll go with me to-night,  
 To kinder keep up my courage, an' see that things go right,  
 Tackle the deacon, mebbe, an' show me how to begin,  
 I'll give ye a yearling calf—I will as sure as sin is sin."  
 Waal, the bargain was struck. Me an' Jacob went to see Eunice together.  
 Jake, he talked to the deacon 'bout crops an' cattle an' weather;  
 Eunice she kep' very quiet—jest sot an' knitted away,  
 An' I sot close beside her—a thinkin' of somethin' to say.  
 Many an' evenin' I noticed, when she went for apples an' cake,  
 Inter the pantry, 'twas allus, "Come hold the candle, Jake."  
 As ef she counted him nobody; then she'd give me a smile  
 Soon's I offered to help her, an' say 'twarn't worth my while.  
 I'll own 'twas quite surprisin' how long they'd hev ter stay  
 A pickin' out them apples, but Jake told me one day,  
 They was tryin' to find the best ones, so's she could give them to me;  
 An' surely that was flatterin', as any one could see!  
 Once I bought her a ribbon—Jake said it oughter be blue.  
 But a brown one's far more lastin', an' this one was cheaper, too;

An' once I took her out ridin', but that wasted half a day,  
 An' I made up my mind that walkin' was pleasanter anyway.  
 Waal, I'd been six months a-courtin' when I sez to Jake, sez I:  
 "It's time that we was married; here's Thanksgivin' drawing nigh—  
 A first-rate day for a weddin'; an' besides, to say the least,  
 I can make the Thanksgivin' turkey do for part of the weddin' feast."  
 So that night I mustered courage to the very stickin' pint,  
 (You wouldn't never mistrusted that I shook in every jint).  
 We was comin' along from meetin'. Sez I, "I'd like you now to say  
 That you hain't no objection, Eunice, to be married Thanksgivin' day."  
 She looked at me smilin' an' blushin' as red as a rose an' as sweet,  
 I scursly knew for a minnet ef I stood on my head or my feet;  
 Then "I hev'n't the least objection," sez she, as I opened the gate;  
 But she didn't ask me to stop, she sez only, "it's gittin' rather late."  
 I looked all round for Jacob, but he'd kinder slipped out of sight;  
 So I figured the cost of a weddin' as I went along home that night.  
 Waal, I got my house all ready, an' spoke to the parson beside,  
 An' early Thanksgivin' mornin' I started to hev the knot tied.  
 But before I came to the deacon's—I was walkin' along quite spry,  
 All rigged in my Sunday best, of course—a sleigh comes dashin' by;  
 That was Jacob a-drivin', an Eunice sot at his side;  
 An' he stops an sez, "Allow me to introduce my bride."  
 So that was the end of my courtship.  
 You see I started wrong,  
 Askin' advice of Jacob, an' takin' him along;  
 For a team may be better fer ploughin', an' hayin' an' all the rest,  
 But when it comes to courtin', why, a single hoss is best!

WHERE IT WAS DONE.

Joe Bing, he cut ten cord o' wood  
 From rise to set o' sun;  
 He cut it, an' he piled it, too,  
 Yes, sir, that's w'at he done.  
 To cut ten cord of wood, I vow,  
 Is one tremenjous chore—  
 Joe Bing cut his behind the stove  
 In Luscomb's grocery store.  
 Joe Bing, he cut eight load o' hay,  
 I swan, an' raked it, too,  
 An' in twelve hours by the clock  
 He was entirely through.  
 He could, I guess, before he slept  
 Cut jes' as many more—  
 He cut it where he did the wood,  
 In Luscomb's grocery store.  
 Joe Bing, he plowed four acres onct,  
 He plowed it good an' neat;  
 An' 'fore the sun had near gone down  
 The job was all complete.  
 The hosses never turned a hair,  
 Wasn't tired, ner leas bit sore.  
 He plowed it all in one short day—  
 In Luscomb's grocery store.  
 Joe Bing, he made five dollars onct  
 By simply pickin' hops;  
 He done it all in jest a day  
 With time for sev'ral stops.  
 He could as well a-kept it up  
 A dozen days or more.  
 Where was it done? The same ol' place—  
 In Luscomb's grocery store.  
 —Woman's Home Companion.

A Lancashire lawyer tells the following story concerning a client, something of a wag in his way, with whom he had long kept an account. When the latter was finally made up, the bill, mostly for trifling services, covered several pages of foolscap, as the items enumerated the most trifling details. When the client called to settle, he refused to enter the office, but stood in the doorway, holding one end of the voluminous document in the direction of his legal adviser, with the request that he would take the money and receipt it. "Come in," said the lawyer, most cordially. "Not quite," replied the client; "I know a thing or two now. You'd charge me rent if I did."—[Ex.]

GOSSIP.

Mr. H. M. Vanderlip, Cainsville, Ont., writes: "I have sold to Mr. H. Smith, Exeter, the young Shorthorn bull, Prince of Stars, recently advertised in 'The Farmer's Advocate'; thanks to that medium."

SEED FAIRS, STALLION AND BULL SHOWS.

Following is a list of the spring stallion and bull shows and seed fairs to date, arranged by the Ontario Department of Agriculture. Any additional information desired may be obtained from the Supt. of Agricultural Societies, J. Lockie Wilson, Parliament Buildings, Toronto:

Spring seed meetings.—Frankford, April 3; Kilsyth, March 21; Blyth, April 2; Walkerton, April 3; Elora, April 9; Mt. Forest, April 10; Moorefield, April 12; Sundridge, April 18; Creemore, April 23; Brucefield, April 26; Caledonia, April 11.

[Note.—Several meetings fixed on dates before the present issue of 'The Farmer's Advocate' are omitted from above list.—Editor.]

Spring stallion and bull shows.—Frankford, April 3; Renfrew, April 23; Perth, May 7; Blyth, April 2; Milverton, April 3; Moorefield, April 12; Tara, April 16; Listowel, April 17; Kenilworth, April 18; Owen Sound, April 24; Clarksburg, April 26; Barrie, April 11; Sundridge, April 18; Comber, April 19; Simcoe, April 20; Chatham, April 27th.

CEDARDALE SHORTHORNS.

Few men in public life in Canada today are better known than Dr. T. S. Sproule, M. P., of Markdale, Ont. When away from his public and professional duties, his whole attention is given to his splendid stock farm, Cedarvale, situated in the outskirts of the village of Markdale, on which he has a grand herd of about 36 head of Scotch and Scotch-topped Shorthorn cattle, the former belonging to the well and fashionably-known Mayflower and Flora strains; the Scotch-topped all tracing to that grand old cow, Beauty (imp.), by Snowball, a cow that has probably more prize- and dairy-test winners whose Canadian origin traces to her than any other one cow that ever crossed the ocean. As an evidence of the heavy-milking qualities of the cows of this herd, one has only to look at the plump, sleek, good-doing youngsters that have not yet been weaned, and as proof of the entire satisfaction experienced by purchasers of hard-headers from this herd during the last year, we may refer the reader to the following reliable Canadian breeders: A. Brodeur, M. P., Morrisburg; A. Latchford, Bracebridge; W. Pullen, Sweaburg; J. Williams, Ceylon, Ont., and John Manarey, Rockland, Ont., who have purchased stock from this herd, which have developed into grand good animals, and the Doctor had many more applications for bulls, but could not supply them. The present stock bull is Royal Standard 2nd =60922=, a Mayflower-bred bull, by Royal Standard =27134=, a Miss Ramsden, dam Tribby, by Lord George, a Merry Maiden, and a son of Imp. General Booth. He is a red three-year-old, of the thick-fleshed, even, mellow kind, and a sire of grand, good, thick calves. For sale in young bulls is one red one, ten months old, out of the same dam, Tribby, sired by Forester =30643=, a son of Choice Royal (imp.). Another is a nine-months-old red-roan, by the stock bull, and out of Markdale Lady 2nd, a cow that is a very heavy and persistent milker. Another is a seven-months-old red, by the stock bull, and out of Ida of Brookdale, a Flora-bred cow. Still another is a seven-months-old red, by the same sire, and out of Lady Marlboro, another noted milker. Here are a quartette of young bulls that have not only excellent individuality, but are straight dairy bred, three of them, the other being Scotch bred. These are for sale at reasonable prices for a quick take. There are also for sale ten heifers, from ten months to two years of age, the get of the stock bull and Cedarvale Chief, a lot of heifers that cannot fail to do good in any hands that will give them decent care, and they can be bought at very reasonable prices. Parties wanting dairy-bred Shorthorns should look after this lot quickly, as they will soon go, as the demand for dual-purpose Shorthorns is certainly on the increase.

The Bruce Agricultural Works, Teeswater, Ont., manufacture a variety of farm implements, including plows, harrows, seeders, wagons, buggies, etc., also school seats. Parties interested should look up their advertisement in this paper, and correspond with them for prices, etc.

At the auction sale held by Mr. J. C. Ross, of Jarvis, Ont., on March 7th, the Clydesdales sold for good prices, as is shown by the following list: Jessie Clayfield, 5 years, to N. Montague, Jarvis, \$295; Blossom, 4 years, Ed. Kelly, Walpole, \$301; The Bonnie Lass, 9 years, to John Henning, Jarvis, \$275; Lady Clayfield, 1 year, to Levi Sharp, Springvale, \$247; Clayfield Lass, 10 years, Charles Paling, Caledonia, \$205; Queen Bess, 8 years, to Robt. T. Docker, Dunnville, \$100; Prince Alexander, 2 years, to Robt. Docker, \$370.

Of the sheep advertised, only ten Cots-wold ewes were sold, the prices averaging \$15.30 each.

Mr. H. J. Davis, Woodstock, Ont., writes: "Notwithstanding the large number of public sales that have been held, the inquiry for Shorthorns is fairly well up to average years. I have at present five very smooth, even, imported and Canadian-bred bulls of the best Scotch breeding that will be sold at reasonable prices. Have recently sold to Mr. J. G. Carter, Greenock, Ont., a very promising heifer, Diamond Bracelet, by Bapton Chancellor (imp.), and in calf to Queen's Counsellor (imp.), a grandson of Brave Archer. For the last seventeen years in which I have been engaged in breeding Yorkshires, the past year's sales have eclipsed all others. Among some excellent young sows recently shipped was one imported sow, bred by the Earl of Rosebery, to Mr. James Shurrie, Brussels, Ont., who is founding a select herd of Yorkshires, and has secured an excellent specimen of the breed for a start. Mr. A. W. Harwood, of Hickson, recently purchased a trio of excellent pigs, consisting of two in-pig imported sows, bred by the Earl of Rosebery, and a young boar, from the show sow, Broomhouse Lally. Have some good young sows in pig left, and a number of choice boars, also an excellent lot of young pigs, from good, large, imported sows and boars."

MYRTLE SALE OF PURE-BRED STOCK.

As announced in last week's issue, at Myrtle (C. P. R.) Station, on Friday, March 29th, the Myrtle Sales Association will hold their second bi-annual sale of pure-bred stock, including 15 Shorthorn bulls, 15 Shorthorn heifers, 15 Yorkshire sows, 5 Yorkshire boars, several imported and Canadian-bred Clydesdale mares and fillies, and a few Clydesdale stallions, Canadian-bred. The Shorthorn bulls to be sold are from ten months to two years of age; the females from one to four years. Among them are some extra choice show-ring stuff, and there are no culls. All are in good condition. Part of them are straight Scotch bred, the balance Scotch-topped, founded on some of the most noted English milking strains, notably those grand old strains that have produced so many winners at the leading shows, the Beautys and Lavinias. Among the straight Scotch-bred ones are representatives of the following fashionable families: Crimson Flowers, Wedding Gifts, Miss Ramsdens, Meadow-flowers, Stamfords, etc.; the sale making a very rare opportunity for the selection and purchase of either the beef type or the milking type. Former sales held by this Association have proved that the class of animals offered have been of a type and breeding that are in demand, and this is certainly a better lot than have ever before been offered at a sale of this kind, and will not disappoint visitors coming with the idea of purchase. The Clydesdales to be offered are also a high-class lot—young, sound and right in every particular; so, also, are the Yorkshires. In case of bad weather, the sale will be held under cover. The terms are: Cash, or six months' on bankable paper, with six per cent. per annum. Single return fares will be given on both the C. P. R. and G. T. R., also half fare on the shipment of animals bought at this sale. There is good hotel accommodation at the C. P. R. station. For any special information, write to Mr. Smith, Columbus, President; John Bright, Myrtle Station, Treasurer, or A. Quinn, Myrtle, Secretary.



### QUESTIONS AND ANSWERS. Miscellaneous.

#### THE WIRE TARIFF.

Is there any duty on fence wire or woven fencing coming from the United States?  
SUBSCRIBER.  
Bruce Co.

Ans.—Yes; on Nos. 9, 12 and 13 galvanized-iron wire, 5 per cent., other gauges, 20 per cent.; woven wire, 15 per cent. Barbed wire is free.

#### REGISTERING CLYDESDALES.

I have a filly with four crosses of Clydesdale breeding. Would like to know, through your valuable paper, if she can be registered. How am I to go about it, and where can I get the forms?  
OLD SUBSCRIBER.

Ans.—Write to the Accountant, National Live-stock Records, Department of Agriculture, Ottawa, asking for the number of entry forms you need. On the forms are printed the rules and requirements for registration. When forms are filled, mail to the address above. Postage is free.

#### LIVE-STOCK REGISTRATION.

Who is the Dominion registrar of live stock? What is cost of registration? What is charge for getting a transfer? Can blank forms be had from the Department?  
YOUNG SUBSCRIBER.

Ans.—There are several registrars in connection with the National Records at Ottawa. All correspondence should be addressed to the Accountant, National Live-stock Records, Department of Agriculture, Ottawa. Ask him to mail you blank forms of entry for the breed of stock you wish to register. The rules and requirements, and the fees for registry and transfer are printed on these forms. When forms are filled, mail them, enclosing fees, to the address of the accountant as above.

#### REGISTERING SHORTHORNS.

Two years ago my father bought a pure-bred Shorthorn cow. She has a bull calf, sixteen months old, and a heifer calf, three months old. Neither calves are registered, although eligible. What must I do to register them? Do I give the names I wish them called? Do they send blanks to be filled? What is the fee, and to whom must I write? I wish them transferred also.

#### NEW SUBSCRIBER.

Ans.—Write the Accountant, National Live-stock Records, Department of Agriculture, Ottawa, asking him to mail you the number of blank forms of entry for registry and transfer you need. On these forms are printed the rules and the fees required. When forms are filled, mail to the accountant as above, enclosing the necessary fees. If you don't clearly understand the requirements, write the same officer for fuller information.

#### HOG TROUGHS.

I am preparing to build a hogpen. Please tell me:

1. What kind of trough would you recommend, so they cannot eat them? Also, how to fix them so they cannot get their feet in trough?

2. Do you recommend the self-feeding box, where it slips down as fast as they eat?

3. What kind of ventilators do you recommend for hogpen, the one that comes down within six inches of floor, or the one that just opens through the roof?  
F. J. W.

Ans.—1. An experienced hog feeder tells us that the best and cheapest trough is made of cement concrete, the surface finish to be of one part cement to two parts sand, while the body of trough may be of cement and gravel, with the big stones picked out, one to eight. A swinging front over trough, slightly overhanging when in position, tends somewhat to keep pigs from getting lengthwise and with their feet in trough. Bars across to keep each pig in his place are also a help.

2. We prefer trough.

3. If the draft is good in the ventilators coming down nearly to the floor they are to be preferred, as the place would be warmer. We would, however, be afraid of the draft being sluggish, and would prefer ventilating flues coming down from ridge through a straw-covered loft, ending a little below ceiling. If practicable, a second shaft might run down to near the floor.  
T.

#### WEED SEEDS IN SAMPLE.

I am sending a sample of clover seed to you. Will you please tell me what kinds of foul seed are in the enclosed sample of clover seed?  
A. M.

Ans.—We find in the sample pigweed, ragweed, lamb's-quarters, blue vervain, in addition to some timothy seed. You will note that the ragweed is hulled. It may or may not be vital.

GEO. H. CLARK,  
Seed Commissioner.

#### WELL-DRILLING POWER.

Seeing, in "The Farmer's Advocate," an illustration of a homemade drainage level, would you please give an illustration of a well-drilling machine to be operated by horse-power?  
A. D.

Ans.—Several well-drilling outfits have been advertised, with illustrations, but we presume our correspondent wants a simple horse-power design. Perhaps some reader can furnish a good pen-and-ink sketch.

#### MISPLACED LINE FENCE.

I bought a farm a year ago, and after buying it I discovered that the line fence, for a short distance, is over on my neighbor's property, on account of a bend in the river.

1. Can he move the fence over to the line?

2. Can he prevent me from taking timber off over the line, where the fence should have been?  
ONTARIO.

FARMER BROWN.

Ans.—1. Yes.

2. Yes.

#### SUBSOIL PLOWING—ROLLING.

1. Do you approve of subsoil plowing? If so, how often should a person subsoil plow?

2. Do you approve of rolling a field just after sowing it? If not, when should it be rolled?  
J. D.

Ans.—1. Faith in the benefit of deep plowing and subsoil plowing has been waning since the gospel of surface cultivation and surface manuring has been preached and practiced so satisfactorily in recent years. It is probable that in some soils subsoiling will pay, and we should prefer it to deep plowing, which throws cold clay up to the surface.

2. Rolling just after sowing is advisable, if the surface is lightly harrowed immediately after the rolling, otherwise we should prefer rolling after the plants are up. Crops need air to aid germination, and rolling fresh-worked land tends to exclude air, and causes the formation of a crust after rain, preventing the free growth of the plants.

#### PIGS AILING—PIG PASTURE, ETC.

1. I have young pigs, about four months old, which were doing well. All at once, they became stiff on their legs—could not walk—lasted about two weeks, and got piles. Are on plank floor, with good straw bedding; floor about 12 inches from surface of ground. Fed on scalded shorts and oats and corn. I feed slop warm. What is cause? What would prevent, or cure?

2. A portion of land, which I used for a pig pasture last year, was seeded with red clover, which is all dead, and, needing pasture for pigs, I was going to sow alfalfa this spring. Could I sow alfalfa this spring and pasture this summer? How many pounds of seed should I put to the acre? If alfalfa cannot be pastured this summer, what had I better plant in this field; is it of a heavy soil?

3. How many pounds of rape seed should be sown per acre?

4. What will kill lice on pigs? I have 12 brood sows, which will start to farrow about 15th of March, and they are lousy. I would like to kill the lice before the young pigs come.  
SUBSCRIBER.

Ans.—1. The cause is probably constipation. Give laxative food, as bran and roots, and, if need be, raw linseed oil to relax the bowels.

2. Alfalfa, sown at the rate of 20 pounds an acre, early in April, on well-prepared ground, should give good pig pasture this summer, if given a good start, and pigs are ringed to prevent rooting. A mixture of peas, oats, vetches and red clover makes a good pig pasture.

3. Two pounds if sown in drills, or five pounds if sown broadcast.

4. A mixture of coal oil and lard, or any kind of grease or oil, with about one-third coal oil.

#### ZOOLOGICAL CLASSIFICATION.

Into which class, order, family and genus would a zoologist place the following animals: The horse, cow, sheep, pig, elephant, lion, tiger, fox, rabbit, squirrel, cat, dog, ground hog, skunk, and deer.

Ans.—

Horse.—Class—Mammalia.  
Order—Ungulata.  
Family—Equidae.  
Genus—Equus.  
Species—Caballus.

Cow.—Class—Mammalia.  
Order—Ungulata.  
Family—Bovidae.  
Genus—Bos.  
Species—Taurus.

Sheep.—Class—Mammalia.  
Order—Ungulata.  
Family—Bovidae.  
Genus—Ovis.  
Species—Aries.

Pig.—Class—Mammalia.  
Order—Ungulata.  
Family—Suidae.  
Genus—Sus.  
Species—Scrofa.

Elephant (Indian).—Class—Mammalia.  
Order—Ungulata.  
Family—Elephantidae.  
Genus—Elephas.  
Species—Indicus.

Elephant (African).—Class—Mammalia.  
Order—Ungulata.  
Family—Elephantidae.  
Genus—Elephas.  
Species—Africanus.

Lion.—Class—Mammalia.  
Order—Carnivora.  
Family—Felidae.  
Genus—Felis.  
Species—Leo.

Tiger.—Class—Mammalia.  
Order—Carnivora.  
Family—Felidae.  
Genus—Felis.  
Species—Tigris.

Red Fox.—Class—Mammalia.  
Order—Carnivora.  
Family—Canidae.  
Genus—Vulpes.  
Species—Pennsylvanicus.

Rabbit.—Class—Mammalia.  
Order—Rodentia.  
Family—Leporidae.  
Genus—Lepus.  
Species—Cuniculus.

Red Squirrel.—Class—Mammalia.  
Order—Rodentia.  
Family—Sciuridae.  
Genus—Sciurus.  
Species—Hudsonianus.

Chipmunk.—Class—Mammalia.  
Order—Rodentia.  
Family—Sciuridae.  
Genus—Tamias.  
Species—Striatus.

Flying Squirrel.—Class—Mammalia.  
Order—Rodentia.  
Family—Sciuridae.  
Genus—Sciuropterus.  
Species—Volucella.

Cat.—Class—Mammalia.  
Order—Carnivora.  
Family—Felidae.  
Genus—Felis.  
Species—Domestica.

Dog.—Class—Mammalia.  
Order—Carnivora.  
Family—Canidae.  
Genus—Canis.  
Species—Familiaris.

Ground Hog.—Class—Mammalia.  
Order—Rodentia.  
Family—Sciuridae.  
Genus—Arctomys.  
Species—Monax.

Skunk.—Class—Mammalia.  
Order—Carnivora.  
Family—Mustelidae.  
Genus—Mephitis.  
Species—Mephitis.

Deer.—Class—Mammalia.  
Order—Ungulata.  
Family—Cervidae.  
Genus—Odocoileus.  
Species—Americanus.

CHAS. J. S. BETHUNE,  
Prof. of Entomology and Zoology,  
O. A. C.

#### BOOK ON SHEEP.

Which is the best book on sheep-raising, and where can I get it?

Ans.—"The Domestic Sheep," by Henry Steward, price, \$1.50. "Sheep Farming in America," by J. E. Wing, price, \$1. Either may be ordered from this office.

#### ALFALFA SEEDING ON CLAY.

1. Would it be advisable to sow alfalfa on fall-wheat ground this spring? What is the best time to sow alfalfa, and how much per acre?

2. If not advisable to sow on fall-wheat land, what is the best crop to sow alfalfa with?

3. Is it hard to get a catch of alfalfa on clay land?  
H. P.

Ans.—1 and 2. Alfalfa seeding on fall wheat is not to be depended upon. It does better sown alone, or with a light seeding of spring grain—barley preferred. While seeding should not be left too late, we believe it is wise not to sow until the last of April or first of May, or until a warm, mellow seed-bed can be prepared. If sowing on fall wheat, it would probably be best to wait till the ground were dry enough for harrow or weeder to be used after the seed is sown. Use not less than 20 pounds of good alfalfa seed per acres.

3. It is somewhat easier to get a catch of any kind of seeds on mellow loam than on heavy clay soil, but the chances of a successful alfalfa seeding on clay are as good as the chances of a successful clover catch, provided the soil contains the necessary bacteria and is not acid. A second seeding of alfalfa is almost invariably better than the results of the first attempt, as each seeding inoculates the ground with more of the necessary bacteria. It pays when seeding alfalfa on a farm where it has never grown before to scatter over the field a load per acre of surface soil from an old-established alfalfa field, if there be such in the neighborhood. If not, write to the Bacteriological Department of the Ontario Agricultural College, Guelph, Ont., for some of their nitro-culture. We should not omit to add that once alfalfa becomes established on clay it holds the ground better than on lighter soil.

#### HEAVES—CURB—ROUP.

1. Mare, seven years old, has a short cough, and has had it for a year. What is the cause of it, and what will cure it?

2. What would cure a curb that has just started to come on a horse about two weeks ago?

3. Will you please give me a cure for turkeys that have swelled cheeks and head? Their eyes would fill with foam, and their nose run with matter. It was about October.  
J. W. L.

Ans.—1. The symptoms indicate heaves, cause, over-distension of stomach by too heavy eating of hay. Dust aggravates the trouble. There is no cure for heaves, but the disease may be prevented, or, if established, the symptoms alleviated by feeding lightly on hay and moistening same with lime water.

2. Get the horse shod three-quarters of an inch higher at the heel than at the toe. Blister once every month, until enlargement disappears. Take 1½ drams each biniodide of mercury and cantharides, and mix with 2 ounces vaseline. Clip the hair off the part; rub well with the blister; tie so that he cannot bite the parts. In 24 hours, rub well again with the blister, and in 24 hours longer rub off and apply sweet oil. Let his head loose now, and oil every day. It will be better if you can let him rest. Repeated blistering will be necessary.

3. The trouble was roup, a very infectious disease, most frequently communicated by means of the drinking trough. Kill badly-affected birds; isolate the less severely affected. Wherever they have been, disinfect all roosts, nests and houses. Destroy or thoroughly cleanse with some disinfectant fluid, all drinking and feeding utensils, and for some time afterward add a little Stockholm tar to the drinking water of the well birds. The affected fowl might have been treated, using some good roup cure, such as Morgan's, and by pouring into the nostrils and throat a small quantity of glycerine into which has been put a couple of drops of essence of wintergreen. F. C. Elford, of Macdonald College, Ste. Anne, Que., recommends this particular local treatment for cases where the eyes have been swollen or closed. In any case of roup, use lime on the dropping-boards. Keep grit and charcoal where they can get plenty. A little ginger in the food is good. It is understood that unless one is willing to treat patiently he had better destroy all birds in the least degree ailing from this disease.